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Volume IV

Final Environmental Impact Statement

for

the Proposed

York County Energy Partners Cogeneration Facility

York County, Pennsylvania

U.S. Department of Energy

— May 1995 —

IV

DOE/EIS-0221

Final Environmental Impact Statement

for

the Proposed

York County Energy Partners Cogeneration Facility

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U.S. Department of Energy

VOLUME IV

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VOLUME IV(B): Written Comments on the DEIS

VOLUME IV(B): WRITTEN COMMENTS ON THE DEIS

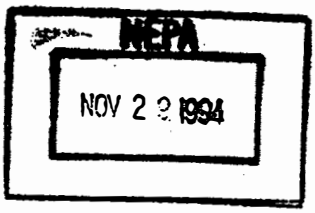
This Section of Volume IV contains reproductions of all written comments (i.e., letters and postcards) received by DOE's Morgantown Energy Technology Center (METC) during the comment period (November 25, 1994 through January 31, 1995). To the extent practicable, written correspondence submitted either before or after the comment period or to other DOE individuals has also been included.

For written comments (i.e., public comment cards and letters), the convention is to assign the comment a prefix of "W" (denoting a written comment), followed by the initials of the commenter's name (e.g., JKL), followed by the commenter's submittal date in month/day (e.g., 1/04), followed by an alphabetical suffix denoting the specific comment's order of sequence in the entire written submittal. For instance, the designation W-JKL-1/04c denotes the third (i.e., "c") specific comment contained in a written comment submitted on January 4th by an author whose initials are JKL.

In responses to comments, three acronyms referring to environmental impact statements are used. "DEIS" refers specifically to the Draft Environmental Impact Statement published in November 1994; "FEIS" refers to this Final Environmental Impact Statement; "EIS" refers to both the DEIS and the FEIS, in general. Thus, when a reference to the DEIS, FEIS, or EIS is made in a response to a comment, that information can be found only in the DEIS, only in the FEIS, or in both documents, respectively.

DOE addressed the pertinent and relevant comments contained in the written comment. The Department appreciates receiving all comments, and those not specifically marked for response are recorded here as being received, considered, and noted for the record by DOE.

MICHAEL NEMSER
913 W MARKET ST.
YORK PA 17404



MR. NELSON F. REKOS
DEPT. OF ENERGY
METC
P.O. BOX 880
COLLINS FERRY ROAD
MORGANTOWN, WV 26507-0880

DEAR MR. REKOS:

IT HAS COME TO MY ATTENTION THAT A PROPOSED COAL-FIRED COGENERATION FACILITY, SLATED TO BE BUILT IN SPRING GROVE, PA, WILL UTILIZE TECHNOLOGY THAT IS ALREADY CONSIDERED OBSOLETE. ADDITIONALLY, I UNDERSTAND THAT THE DEPARTMENT OF ENERGY IS CLOSED TO THE IDEA OF CONSIDERING ALTERNATIVES TO THE DESIGN SUBMITTED FOR THE AFOREMENTIONED PLANT. W-MJN-11/29

CAN THIS BE TRUE? WHY WOULD YOUR DEPARTMENT SPEND TAXPAYER MONEY ON A PROJECT THAT IS NOT UP TO CURRENT CUTTING EDGE SPECS? DO YOU NOT REALIZE THAT IN THE TIME IT TAKES TO BUILD THIS FACILITY, OTHER ADVANCEMENTS COULD MAKE IT ABSOLUTELY ANTIQUATED?

IN ADDITION, OTHER FUEL SOURCES, MOST NOTABLY NATURAL GAS, ARE CLEANER AND MORE EFFICIENT. WHY AREN'T THEY BEING CONSIDERED?

AIR PRODUCTS OF ALLENTOWN, THE PROPOSED BUILDER OF THIS ILL-CONCEIVED MONSTROSITY, IS CURRENTLY INVOLVED IN OTHER PROJECTS THAT USE

(OVER)

W-MJN-11/29

Response: Please see the responses to Comments D-37/16 and D-100/9.

KEYWORDS:
Alternative technologies
Commercialization status

The technology of the proposed project is not obsolete, as explained in the response to Comment D-39/13. Atmospheric circulating fluidized bed (ACFB) technology at this scale is one of the innovative technologies which the Clean Coal Technology (CCT) Program has set out to demonstrate using funds dictated for this purpose by Congress. Because of the specific funding and goals of the CCT Program and the technology development strategies developed by the CCT Program, the range of alternatives that can be considered for funding are limited. Please refer to Section 2.2.5 "Alternative and Issues Dismissed from Further Consideration" for more information concerning what alternatives are not being considered in the EIS and why.

York County Energy Partners, L.P. (YCEP) has proposed this project for joint funding, and DOE has accepted this project into its CCT Program. As stated previously, the monies for the CCT Program were set aside by Congress. As required by law, DOE is now in the process of evaluating the environmental impacts which would result from the project proceeding or not proceeding, and examining reasonable alternatives to the project within the scope of the needs of the CCT Program. As part of the National Environmental Policy Act (NEPA) process, the public has been made aware of project details, and their input has been solicited in the form of scoping meetings and requests for written comments to help identify project issues. In the end, however, DOE's signer of the Record of Decision at DOE Headquarters is the authority who will determine whether CCT Program funds are dispersed for this proposed project.

MORE CURRENT TECHNOLOGY. WHY IS THIS TURKEY BEING FORCED DOWN OUR THROATS?

(continued)

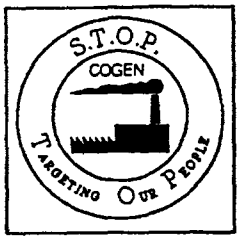
IF YOU CAN PROVIDE ANY RATIONAL ANSWERS TO MY, I BELIEVE SENSIBLE QUESTIONS, PLEASE WRITE ME AT THE ADDRESS ON THE FRONT OF THIS LETTER.

HOPING YOU WILL SEE THE LIGHT, I REMAIN,

SINCERELY,

Michael J. Hanlon

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S top
T argeting
O ur
P eople

C/O Richard J. Clark
Box 7238, RD #7
Spring Grove, PA 17362

December 5, 1994

Honorable Hazel O'Leary
U.S. Department of Energy
1000 Independence Ave. S.W.
Washington, D.C. 20585

Dear Honorable O'Leary:

We of S.T.O.P (=Stop Targeting Our People) are writing you to inform you of a situation which concerns action within the National Environmental Policy Act (NEPA) laws. Briefly, the U.S. Dept. of Energy (DOE) is considering the provision of 75 million dollars of U.S. taxpayers' money to cost-share the building of a 250 megawatt cogeneration plant here in North Codorus Township, York County, PA. The project is within the Clean-Coal Technology Program of DOE. It was placed on the alternate list in Round I (July 1986), moved from the alternate list (June 1989) first to Tallahassee, FL, then to West Manchester Township, York, PA (Sept. 1991) then to North Codorus Township, York, (June 1993).

A four pound DRAFT Environmental Impact Statement was issued 17 November 1994 along with a notice that public hearings will be held for three nights (December 14, 15 and 16) 1994 here in York. After an initial attempt to try and do a meaningful job of examining this document along with 22 supporting documents (some multivolumes) the impossibility of the task became obvious. This leads us to the conclusion that the DOE cannot be serious about getting meaningful input on this document and thus the hearings become a meaningless, pro forma action which violates the spirit of NEPA. I am writing you, not as an individual, but rather as an elected spokesperson for a not-for-profit organization incorporated within the Commonwealth of Pennsylvania. We admit, up-front, that we are opposed to the building of this specific project at this proposed site. Our reasons, however, are not strictly NIMBY; i.e., Not In My Back Yard, for we know that the local utility (Metropolitan Edison) does not need the electricity locally. They were ordered into a 25-year purchase agreement with YCEP by the Pennsylvania Public Utility Commission. Met-Ed had declined to initially enter into such an agreement with YCEP because at the time YCEP asked Met-Ed, Met-Ed had a competitive procurement program before the PUC and Met-Ed wanted the agreement to go through a competitive process to give their ratepayers the most competitive price available for their electrical rates. YCEP and the PUC circumvented all of that. Other reasons include the fact that the particular technology being considered has already been demonstrated at the scale proposed. Last, but certainly not least, the environmental consequences are going to be much worse than is portrayed.

W-RJC-12/5a

W-RJC-12/5b

W-RJC-12/5c

YCEP has been, what might best be characterized as, a corporate bully throughout this whole process thus far. The latest evidence of the corporate bullying going on was demonstrated at the 15 November 1994 meeting of the North Codorus Township Planning Commission. At that meeting were five representatives of YCEP. They have asked the local municipality to pass final approval on the Land Development Plan and they should know full well that the preliminary approval was a conditional one with the first condition being that all necessary permits must be "in hand" **(please see the enclosed Minutes of the 6 October meeting when the Supervisors acted on the Plan**--especially page 6 [please note that the poor quality of the copy is due to poor quality of the copy provided us by the Supervisors--and that we are providing the minutes in their entirety because it reveals much about the local setting of this proposed project). You should be aware, to get the full impact of their actions, that as yet they do not have a single permit that we know of. Yet they are pressing for final approval for their plan.

W-RJC-12/5d

Local residents, including the news media (please see enclosed clippings) are

W-RJC-12/5a

Response: Please see the responses to Comments D-31/22 and 32/13.

KEYWORDS:
Document length
NEPA
Schedule

W-RJC-12/5b

Response: Based on the analysis of various publicly-available reports, DOE has verified that Metropolitan Edison Company (Met-Ed) has a need for power to meet required reserve margins (see Appendix K of the FEIS). Generally, utilities plan the acquisition of new power resources on a system-wide basis rather than on the needs of the locality where the plant is to be sited. Because of the way electricity is distributed over all available electrical paths, it is impossible to determine how much of the energy generated by the proposed project would be used by York County or the surrounding area. Please see the response to Comment D-83/5.

KEYWORDS:
Met-Ed
Need for power

W-RJC-12/5c

Response: Please see the response for Comment D-39/13.

KEYWORDS:
Commercialization status

W-RJC-12/5d

Response: Interactions between York County Energy Partners, L.P. (YCEP) and the North Codorus Township Board of Supervisors are outside the control of DOE.

KEYWORDS:
Land use
Permits

According to the minutes prepared for a meeting of the North Codorus Township Board of Supervisors on October 6, 1993, Mr. Carl Cramer (YCEP) requested preliminary approval for YCEP's Land Development Plan. The board voted on and granted preliminary approval with several conditions. The vote followed a response to a question about whether or not preliminary approval was needed before YCEP could go forward with the permitting process. Mr. Cramer stated that such approval was (or might be) required for YCEP to obtain some permits and that DOE had expressed to YCEP a preference for such approval before the Department launched into the expensive NEPA process.

DOE had made a request of YCEP for preliminary land use information during the initial stages of developing the DEIS. The Department asked YCEP for a cursory site assessment [to ascertain the possibility of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) liabilities] and for some assurance that the proposed facility could be in accord with local ordinances (and therefore potentially approved). The Department, however, did not require any permit approvals before starting the NEPA process.

Whether YCEP must still meet all the conditions of the preliminary approval prior to final approval is within the discretion of the board, unless a local ordinance precludes final approval before an applicant obtains all required permits. DOE notes that all permits need not be in place prior to issuing a Record of Decision.

dismayed at the extent to which the Morgantown (WV) Energy Technology Center has gone along with this bullying. The first **LEGAL NOTICE** which appeared in our local newspaper was on 3 December 1994. Further the documents that METC claimed would be provided, as supporting material, have not all been provided or have only been provided with less than 15 days to review. Our first point then, is that inadequate time has been provided for a fair hearing of the DRAFT EIS.

W-RJC-12/5e

Another matter of even more concern is that METC has omitted documents from the EIS which carried some constructive suggestions with regard to the proposed project. These omissions appear to be intentional and if so border on censorship. This is a part of a continuing pattern on the part of both YCEP and the METC unit of DOE in dealing with anyone not totally supportive of this project going full speed ahead.

W-RJC-12/5f

We ask you to intercede and direct the people of the Morgantown Energy Technology Center to reschedule these hearings after a reasonable time period; e.g., early February. Considering the years that the DOE has been working on this project this time period for review seems more than reasonable to us, but use your good judgement, and bring about some meaningful action in what is appearing to be a meaningless process.

Thank you, for a better environment

Richard J. Clark, Ph.D.
Elected Spokesperson for STOP
RD #7, Box 7238
Spring Grove, PA 17362
rclark@yorkcol.edu
(voice) 717-225-4143



cc: Dr. Jan K. Wachter, U.S. DOE, METC
Ms. Patricia Prey Godley, Assistant Secretary for Fossil Energy
U.S. Congressman William Goodling, 19th District
U.S. Senator Arlen Specter, PA
Mr. Peter Kostmayer, U.S. EPA, Region III Director
email letter to Vice President Albert Gore

W-RJC-12/5e

Response: Please see the responses to Comments D-59/15, D-59/22, and D-32/13.

KEYWORDS:
Document availability
NEPA
Schedule

W-RJC-12/5f

Response: Please see the responses to Comments D-61/1 and D-76/16. Section 4.1.2.11 of the FEIS has been revised to incorporate many of the documents that were received by DOE from the York County medical societies.

KEYWORDS:
NEPA
Omissions
Quality

$3.80
$3 for first page, 20¢/page thereafter

MINUTES OF OCTOBER 6, 1993 [see page 6]

The meeting of North Codorus Township Board of Supervisors was called to order by Chairman Wayne Stough. Supervisors, Glenn Wildasin and Daniel Stroupe were also present. Clayton Beaverson, Township Manager, Timothy J. Shultis and Thomas E. Miller, Acting Solicitors and the Township Engineer, Charles Rider, were present. The Assistant Secretary, Wayne Stough, directed the Acting Solicitors to take minutes of the meeting.

Wayne Stough made a motion to pay all Township bills. The motion was seconded by Daniel Stroupe and approved by unanimous vote.

Chairman Wayne Stough then announced the administrative procedure by which the Township will handle the presentation of the P.H. Glatfelter Cogeneration Subdivision and Land Development plan:

1. The applicant will have an opportunity to present its plan;

2. The Board will have an opportunity to question the applicant;

3. The Township will hear the comments of the Township Engineer;

4. The Township will hear the comments of the Township Solicitor;

5. Finally, there will be a 30 minute comment period for any persons who wish to make comment.

Chairman Stough identified two persons, Margaret Klunk and State Representative Todd Platts, who, prior to the meeting, requested to be put on the agenda under New Business. Chairman Stough then circulated a sign-up sheet for persons who desired to address the Board. Chairman Stough requested that the 30 minutes be limited to comments only and that the Board would not field questions. Chairman Stough asked if there were any questions about the procedures, and hearing none, called for the first plan.

Plan No. 1, P.H. Glatfelter Cogeneration Plan. Catherine Gault, Esquire and Carl Cramer appeared on behalf of the applicant to present the plan. Mr. Cramer presented an overview of the plan. Chairman Stough then opened questions up to the members of the Board.

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Daniel Stroupe asked a number of questions of the applicant including the location of the steamline and powerlines, the water run-off water from the parking area, the effect on traffic that the inbound and outbound weight scales will have, whether or not the traffic study was up-to-date since it was based on "print date" of 1985 and finally, Stroupe expressed his desire to have a flashing traffic light installed at the entrance of the Roundwood facility.

Glenn Wildasin asked whether or not the traffic light at Rt. 116 and 516 - will be permanent. Glenn Wildasin also expressed a concern about traffic during the construction phase of the project and whether or not staggered work hours were being considered and, if so, whether or not that would mean that construction would occur late at night.

Supervisor Stroupe asked where the applicant intended to provide parking for construction crews during the construction phase.

The Township Engineer, Charles Rider, then addressed the Board. The Engineer opined that the applicant met all of the requirements of the North Codorus Township Subdivision and Land Development Ordinance and all required permits have been applied for. The Engineer made a recommendation that if the Township were to approve this plan it should be condition on the acquisition of all required permits and that the off-street parking and signalization be the first items of construction.

Thomas E. Miller, Esquire, Acting Solicitor, addressed the Board stating that upon his review, in conjunction with the planning commission, all of the Township requirements have been addressed. He noted that the applicant has agreed to put security fencing around the stormwater detention pond and install sidewalks.

Chairman, Wayne Stough, asked the applicant about recycling the waste water. Carl Cramer, on behalf of the applicant, noted that Plan No. 10 referenced a sewer and water feasibility study, which would have to be completed and acceptable to the Board prior to final plan approval.

The next item of business was to open up the meeting to citizen comments. Chairman Wayne Stough, who had previously circulated a sign-up sheet for persons wishing to address the Board noted that there were two Township residents signed up, two persons outside the Township who had previously requested to be on the agenda. Those persons would be allowed to speak and that all others wishing to speak would be given time within the 30 minutes allocated to public comment.

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George Myers addressed the Township and stated that it was unreasonable that the Township citizens could not ask questions and that it was unreasonable that there was no PA system so that all persons could hear the presentation of the applicant. Mr. Myers stated that he was worried about the environment, pollution, traffic, water and noise and that he had not heard any of the Township officials voice any concern about the environment. Finally, he stated that the applicant has promised everything but has given no guarantees.

Richard Clark addressed the Board and echoed the comments of George Myers that 30 minutes was an unreasonable time for public comment considering the magnitude of this project. He objected to the limitation on asking questions, especially because he has previously asked questions which have not been answered. Specifically, his question regarding the application of Ordinance 27 (sic) has not been answered. He addressed the concern that too many loose ends were left hanging--especially with respect to the wetlands delineation. In his review, not one soil test was performed within the footprint of any building; rather, the soil test danced around the footprints of the building. He noted that Amendment 27 to Article I of the Pennsylvania Constitution gave citizens of the Commonwealth a constitutional right to clean air, pure water and cited case decisions which apply to this particular Amendment. Mr. Clark stated that the Commonwealth has a duty to maintain its environment. He cited case law to the effect that a municipal body could enforce Amendment 27. He finally reiterated his request that the Township consider Amendment 27 in their decision to grant or not to grant preliminary plan approval.

Margaret Klunk next addressed the Board and objected to the resolution adopted by the Board on September 1, 1993, in that it discriminated between residents of the Township and non-residents and did not require applicants to register on the agenda. She stated that this resolution was drafted to stifle comment on this subdivision plan and the drafting of such a resolution was not within the spirit of Act 20 of 1993.

Representative Todd Platts then addressed the Supervisors. He questioned the legality of the September 1, 1993 Ordinance (sic) in that it distinguished between residents and non-residents whereas Act 20 distinguishes between property owners and non-property owners. He stated that there may be property owners who are not residents, and, therefore, the ordinance (sic) as adopted by the Board of Supervisors is illegal. He also stated that the 30 minutes is not a reasonable amount of time to discuss a project of this magnitude. Referring to the merits of the plan, Representative Platts questioned whether or not the traffic study included traffic coming from the Hanover area and Hanover area

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growth projections. Representative Platts stated that his reading of the North Codorus Township Subdivision and Land Development ordinance includes the protection of the health of residents and the protection of the waterways. This gives the Township a basis upon which to make decisions about the plan's environmental impact upon the Township. He stated that the Township should make the applicant prove that there is not environmental impact. Representative Platts also stated that the Pennsylvania Constitution gives the Township the right to pursue environmental concerns. He implored the Township to follow the recommendation made by a Planning Commission member, Earl Wolfe, to require an environmental impact statement prior to making a decision on preliminary approval. Finally, Representative Platts urged the Board of Supervisors to delay the decision making process until further comment from the general public can be heard on this issue.

Chairman Wayne Stough then asked for any comment of any property owner in North Codorus Township who is not a resident if they wish to make comment. He asked for a show of hands if anyone wished to comment and seeing none, Chairman Stough moved down the list of those who signed up for comment.

John Klunk addressed the Board and expressed his concern over the waste water usage issue brought up by Chairman Stough during the board's questioning of the applicant. Mr. Klunk stated that while the cogeneration plant may use waste water, instead of fresh water the water must come from somewhere and that will have a drastic impact on Lake Marburg and the Codorus Creek. He noted that this plant proposed to use 3 million gallons of water per day. He also expressed his concern about the amount of steam and mist created by this project and its effect on the health and safety of the residents.

Michelle Kessler then addressed the Board and expressed her disappointment at the tone of the Board and in the Board's actions tonight.

Steven Baker addressed the Board and proposed another analysis of this decision-making process. He stated that the Township should take a piece of paper and list all the positive elements of this project on one side and all of the negative elements on the other, and weigh them. He challenged the Board to use this analysis and make their decision on that basis.

Chairman Stough then asked whether or not anyone else, resident or not, wished to make comment.

Francis McKean requested a copy of the tape of this meeting and or the meeting when Chairman Stough excused himself in

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participation of this process. Mr. McKean was informed that the Township does not have a policy of retaining tapes and that the audio tape is used simply for the preparation of non-verbatim minutes. Mr. McKean then wanted to make it a matter of record that Chairman Stough presided over this meeting.

Harold Bender, resident of West Manchester Township, addressed the Board and expressed his disappointment of how the meeting was run and how the Township was cutting itself off from its own citizens.

Chairman Wayne Stough then asked if anyone else wanted to make any comment. Hearing no further requests, Chairman Stough asked the applicant if the applicant wished to address any comments made by the persons present at the meeting. The applicant stated that they did not at this time.

Supervisor Daniel Stroupe, then asked whether the traffic study included Hanover's population study. Representative for the applicant, Carl Cramer, stated that the traffic study was done in accordance with a protocol set forth in the Institute of Transportation Engineering Manual with respect to roadway impact for site development. The protocol requires the study to use a growth factor of Township's surrounding the project, and, in this case, those townships along Route 116. According to census figures in 1970, 1980 and 1990, growth factors in those townships along Route 116 increased 1.63% per year. The growth factor used by this particular study used a growth factor of 2.9% per year which is in excess of one percent greater than the actual growth factor as indicated in the United States Census. The traffic study did exclude Hanover Borough in that during the last two census periods, namely 1980 and 1990, Hanover Borough had a declining population.

Supervisor Daniel Stroupe then questioned Carl Cramer on whether or not there was any other available study from years prior so that that study could be compared with the current study to see whether or not the population trendlines are accurately reflected. The applicant stated that he was unaware of any other prior traffic studies done in this area, but he noted that PennDOT does set up traffic count stations on a regular basis throughout the state but a coordination with traffic count stations in this area was not conducted primarily because PennDOT itself uses the trendline figure of the growth factor in its own calculations.

Supervisor Daniel Stroupe then questioned the applicant regarding how many of 37 permits required need preliminary plan approval before they can be processed. Mr. Cramer stated that he was not an environmental engineer but that he was aware that preliminary plan approval was required for sewer modules, highway

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occupancy permits, perhaps the soil and erosion settlement permit issued by Soil Conservation and that he was aware at least of a policy of the Department of Energy that a preliminary plan approval would be preferred prior to DOE performing an environmental impact study since the effort expending in doing an EIS was extensive, the DOE would want to known whether or not the plan met the basic tenants of the local ordinances. Attorney Catherine Gault, representing the applicant, stated that the requirements of the Northcodorus Township ordinance were met. Charles Rider, Township Engineer, also opined that all of those permits which were required under the ordinance had been applied for.

Wayne Brough then called for any questions or comments and hearing none called for a motion.

Supervisor Daniel Stroupe made a motion to approve the preliminary plan conditioned on the following:

1. Prior to final plan approval the applicant must comply with all applicable federal, state, county, local laws, regulations and ordinances, and obtain all necessary permits, licenses and other documentation showing compliance.

2. The applicant must, subject to approval and regulation by PennDOT construct off-street parking for tractor trailer storage at the Roundwood facility, off-street parking for construction personnel, install permanent signalization at the intersection of Lehman Road, State Route 516 and State Route 116, install temporary traffic signalization at the Roundwood facility entrance and at the intersection of Colonial Valley Road and State Route 116, and mark-off westbound turn lanes on Lehman Road and on Pennsylvania Route 116.

3. The applicant must utilize wastewater in its cogeneration system rather than an independent source of freshwater.

4. Show on the final plan all proposed steam lines and other utility lines connected to the Glatfelter plant and facility.

The motion was seconded by Glenn Wildasin.

Prior to the vote, Mr. Clark stood and asked to make a point of order. Mr. Clark read from the Municipalities Planning Code stating that the granting of preliminary plan approval would be tantamount to granting final plan approval provided that the applicant met any and all conditions. This point of order was noted by the Board of Supervisors.

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Chairman Wayne Stough then asked for a vote. The motion was approved by a margin of 2 to 0 and Chairman Stough abstained.

Plan No. 2, Douglas F. Heimbach. The applicant requested waiver of road frontage, road improvements, curbs and sidewalks. The Township reserved ruling on the request for waivers until they determined whether or not the lots in this particular subdivision came off a prior subdivision. No action taken.

Contract 93-300, Firehall. Chairman Wayne Stough made note that the bids for North Codorus Township Contract 93-300 were reviewed by the Township Engineer and Township Solicitor and found to be in order. Prior to the award, the Township Engineer noted that the bid of the low bidder was significantly under the next highest bidder and that the bid of the low bidder was significantly below the Engineer's earliest estimates. The Township Solicitor asked the Township Engineer whether or not that raised any question in the Township Engineer's mind whether or not the building could be built for that price. The Township Engineer refused to make any comment but stated that the low bidder bided that amount and that he had the opportunity to withdraw his bid.

John Barry Rebert addressed the Board in his opposition to the new firehall. He noted that he was elected in the primary on the position that there is no need for a new firehall. The Township should take notice of that. He also stated that the location proposed for the new firehall is not safe and that it would be a better expenditure of money to renovate the old facility.

Chairman Stough then called for a show of hands of the volunteer firemen present who supported the new firehall.

Chairman Wayne Stough then called for any motions. Supervisor Daniel Stroupe made a motion to reject all bids because there was not enough money in the Township budget to pay for the new firehall. No second was made to the motion.

Wayne Stough then made a motion to award Contract 93-300 to Joseph A. Myers in the base amount of $207,820.00. That motion was seconded by Glenn Wildasin, motion was approved by a 2 to 1 margin, opposed by Daniel Stroupe.

George Shaffer, Mr. Shaffer approached the Board with a building permit. Mr. Shaffer wants permission to erect a mobile home to live in while he makes the appropriate improvements. The Board advised Mr. Shaffer that it is Township policy that the building permit state in writing that the applicant agrees to remove the mobile home within ninety (90) days in completion of the project.

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Donald R. Bankert, Plan No. E-2954. Glenn Wildasin made a motion to deny subdivision approval. The Supervisors noted that no representative of the applicant was present tonight and no request for an extension was made. This motion was seconded by Daniel Stroupe and approved by unanimous vote.

P.H. Glatfelter Waste Water Sludge Proposal. The Township Engineer presented its report on the P. H. Glatfelter Waste Water Sludge Proposal and opined that the proposed plan of action was not in violation of any Township Ordinance. The Board directed the Solicitor to review the same.

1993 W E S
~~1994~~ Minimum Municipal Obligation. A motion to pay the Minimum Municipal Obligation for its pension was made by Daniel Stroupe, seconded by Wayne Stough. The motion was passed by unanimous vote.

Earl Wolf. A letter of resignation from Earl Wolf from the Planning Commission dated September 21, 1993, was read. Wayne Stough addressed Earl Wolf's long time service to the Planning Commission and made a motion regretfully to accept the letter of resignation. Daniel Stroupe seconded the motion, the motion was passed by unanimous vote.

Leaf pick-up. Supervisors decided to leave the Township schedule up to the road crew. With regard to the request by New Salem Borough, the Township Manager was directed to research the rates and suggest a schedule.

Halloween. The Board noted that the Halloween party was scheduled for October 27, 1993, between the hours of 7:00 and 9:00 p.m. and trick-or-treating will be scheduled within the Township for October 31, 1993, between 6:30 and 8:30 p.m. The Supervisors directed the Township Manager to remind Brenda to advertise the same.

The fire report was read by Wayne Stough.

Timesheets. The timesheets where reviewed for the road crew and office staff for the period of September 12 through September 25. It is noted that emergency time was authorized for the road crew. Daniel Stroupe made a motion to accept the timesheets, seconded by Wayne Stough. The motion was approved by a 2 to 0 margin with Glenn Wildasin abstaining.

Police. Supervisors read a request from Chief Malloy to attend the community forum on underage drinking on Monday, October 25. A motion was made by Wayne Stough, seconded by Daniel Stroupe to allocated $15.00 fee for Chief Malloy's attendance. The motion

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was unanimously approved.

Sale of the Township's 1979 Ford F-800 Truck to Jackson Township. Daniel Stroupe made a motion to sell the truck "as is" for $8,000.00. Glenn Wildasin seconded the motion. The motion was passed by unanimous vote.

The Board addressed a concern about an apparent abandoned trailer on Waltersdorff Road. The Township Manager was directed to investigate the same and take any appropriate action.

The Township Manager announced that road inspection would occur on October 13 at 3:30 p.m.

The Solicitor was directed by supervisors to accomplish an independent audit by December 1, 1993.

District Utility Coordination Conference for October 13. Wayne Stough made a motion to direct the Engineer to attend the conference on October 13 which was seconded by Daniel Stroupe. The motion passed by unanimous vote.

Roy Neil. Daniel Stroupe made a motion to submit the modules to DER. Glenn Wildasin seconded the vote. The vote passed by unanimous vote.

Douglas F. Heimbach. Daniel Stroupe made a motion to submit the modules to DER, seconded by Glenn Wildasin, the motion passed by unanimous vote.

Twin Pine Farms. Motion was made by Daniel Stroupe, seconded by Glenn Wildasin to submit the modules to DER. The motion was passed by unanimous vote.

Arbitration: Garry Bartos. Daniel Stroupe made a motion to advertise for the new position for policeman. Wayne Stough seconded the motion, the motion was passed by unanimous vote.

It being no further business, Wayne Stough made a motion to adjourn which was seconded by Glenn Wildasin. The motion was passed by unanimous vote.

Wayne E. Stough
Asst. Sec.

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YORK, PA., SUNDAY, NOVEMBER 27, 1994 ONE DOLLA

Report key to plant's future

Analysis

A federal Energy Department report could decide the fate of the proposed coal-burning power plant in North Codorus. The report itself raises questions.

By JEFF KRALOWETZ
Dispatch/Sunday News

The scuffle over plans to build a $380-million cogeneration plant near Spring Grove has shifted to whether a potentially show-stopping federal report presents a true picture of the project's environmental effects.

The U.S. Department of Energy report, issued in draft form last week, could determine if the project gets $75 million in federal funding it needs to stay alive.

UPDATE
Cogeneration in North Codorus

In its present form, the environmental impact statement contends that the 227-megawatt steam- and electricity-generating project could lower local electric rates and improve both the local economy and overall air quality.

But a wide range of others — from doctors and environmentalists to utility officials — are questioning those conclusions.

In fact, they say, the coal-burning project would add tons of toxic substances to the air, further degrade the Codorus Creek and possibly force Metropolitan Edison to increase rates to its customers.

Having the final report to reflect some of those concerns —and contesting some of its assumptions — will be part of the mission for local opponents of the p ant plans when they

See REPORT *Page A7*

■ Plant facts, hearing information A6-7

Item 2

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YORK SUNDAY NEWS, NOVEMBER 27, 1994

FROM PAGE ONE

Cogeneration in North Codorus: Fast fa

What: A planned coal-burning co-eration plant that would produce m for P.H. Glatfelter Co. and tricity for Metropolitan Edison

Where: North Codorus Township nd next to the P.H. Glatfelter Co. r mill.

ost: $380 million, with $75 mil-to be provided by the U.S. rtment of Energy. The project the federal money only if it es an environmental impact y currently under way.

ho: York County Energy Partners a subsidiary of Allentown-based roducts and Chemicals Inc., d build and operate the plant. roducts is a major international ucer of industrial gases, with 00 employees in 29 countries $3.3 billion in sales last year. It built and operated two similar, maller cogeneration plants, one mbria County and another in kton, Calif.

P.H. Glatfelter Co., the county's 14th largest employer and its top emitter of toxic pollutants, would provide the land for the project and would buy the steam it would produce. Under terms of a permit application pending in Harrisburg, Glatfelter also would shut down one of its currently-operating coal-burning boilers if the new plant is built.

When: Energy Partners officials expect to begin operating the plant in 1998.

Project basics: The plant would burn about 2,400 tons of coal per day (which would arrive at the facility by rail, 90 to 100 rail cars each four or five days). Heat from the boiler (which burns crushed coal on a "circulating bed" of hot air) would be used to create 400,000 pounds of steam per hour to be piped to P.H. Glatfelter. Additional steam would turn a turbine creating electricity to be sold to Met-Ed.

The plant would be cooled by drawing nearly 3 million gallons of wastewater from Glatfelter's wastewater treatment system each day. Glatfelter currently returns about 12 million gallons of treated wastewater to the Codorus Creek each day.

Air emissions would be controlled in several ways. Crushed limestone would be jetted into the boiler with the burning coal to absorb about 92 percent of the sulfur dioxide created, and ammonia would be injected into exhaust gases to reduce emissions of oxides of nitrogen. Various filters also would be used.

The limestone and ammonia injection techniques are improvements over pollution controls used in earlier coal-burning plants, and constitute one of the technology packages the Energy Department wants to encourage through its Clean Coal Technology progrm. The program plans to award the Energy Partners project $75 million.

Project benefits: Energy Partners says its project would generate 65-70 new permanent jobs, up to 1,-000 construction jobs and $500,-000 in local taxes. The company also says the plan to shut down Glatfelter's boiler No. 4 will cut the overall emissions of some pollutants. Energy Partners contends its poject will lead to lower electric rates for Met-Ed customers.

Opponents' objections: Both local medical societies as well as localcitizens' and conservation groups oppose the plant. Some of the questions concerning them include the following:

- Will diverting 3 million gallons of treated waste water from the Codorus Creek each day hurt the stream by reducing its volume?
- Will increased emissions of toxic heavy metals affect local health?
- Will other air emissions threaten the lung health of residents with athsma and other ailments?
- Should the federal government be spending $75 million on the project when more efficient pollution reducing technologies exist?

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FROM PAGE ONE

REPORT

ey to ant's future

tinued from Page A1

k at DOE hearings next th.

ublic hearings have been duled Dec. 14-16, and are indication that the DOE is g to limit public involve- t, said Richard Clark, esman for the opposition ip, Stop Targeting Our le.

The report) weighs four ds with pages printed on sides," Clark said. "To go ugh that (in three weeks) verify everything is impossi- ".

lark said he has asked U.S. William F. Goodling, R- chester, to intervene with OE to get the hearings de- l until after the holidays. ther project opponents in- e the York County Medical ety, York County Osteopa- Medical Society, the Ameri- ung Association of hcentral Pennsylvania and bers of Clean Air, Safe Envi- ment (CASE), formed when roject earlier was targeted site in West Manchester nship.

t-Ed questions

ne of the key assumptions in draft report is that without roposed new plant, local electric rates could increase.

But Met-Ed officials say the assumption is not necessarily right.

They say the federal officials failed to account for changing market forces when they assumed that Met-Ed customers would have to pay for the company to build a new power plant or to have a private company build one if the plan by developers York County Energy Partners falls through.

In fact, Met-Ed spokeswoman Judith Botvin said that Met-Ed rates could be lowered if the project is not built.

The utility could replace the electricity it would have bought from the proposed new plant with potentially cheaper electricity on the short-term market or from other sources, she said.

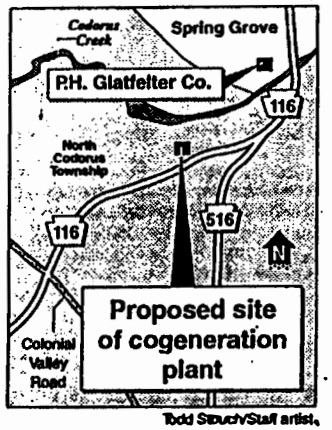
"What we would look for would be the most economical supplier at the time we need the energy," Botvin said.

It's already in use

Another assumption in the federal report is that if the project is not built, utilities across the country will use older, dirtier technology in their new coal-burning boilers.

The reason: They will not have the project to look to as proof that the cogeneration technology works on a utility scale.

The problem with that argument, project opponents say, is that in the eight years it took the proposal to relocate from



Todd Strouch/Staff artist

Tallahassee, Fla., to West Manchester Township and finally to North Codorus Township next to the P.H. Glatfelter Co. paper mill, the technology has become widely accepted.

There are now more than a dozen boilers currently operating in Pennsylvania using the same technology.

And although the Pennsylvania boilers are all smaller than the local project would be, DOE acknowledged last week that boilers of the same scale or larger are now being sold commercially elsewhere.

Taken together, those facts make the DOE's assumption that the technology won't be commercialized tough to accept, opponents say.

And they say that increasingly rigid environmental rules will make it virtually impossible for utilities to return to pre-1980s technology for their new boilers.

Bottom line, opponents say, if the technology is going to be on the market anyway, there is no reason for the federal government to spend $75 million subsidizing a demonstration of the technology.

Balky boiler

A third conclusion reached in the federal draft report is that without the new power generator, a key opportunity to shut down P.H. Glatfelter's 1950s vintage boiler No. 4 would be lost.

But provisions in the report for boiler No. 4 to continue operating for part of each year call those environmental savings into question.

Glatfelter officials have said they could shut down the older boiler if the new cogeneration project is built because the new boiler would generate steam for the papermaker at the same time it generates electricity for Met-Ed.

Glatfelter would buy 400 pounds of steam per hour from the new boiler, which York County Energy Partners plan to build next to the papermaker's Spring Grove mill.

DOE data show that the new boiler would emit 50 percent less sulfur dioxide than the Glatfelter boiler No. 4 while producing the same amount of steam.

Although the new boiler would emit other air pollutants, including some components of smog, DOE and company officials have repeatedly said the project would represent a net decrease in air emissions — assuming boiler No. 4 was shut down.

But the draft report also says boiler No. 4 would not have to be shut down entirely.

In fact, it could run indefinitely when the new boiler is shut down for repairs.

And the two boilers could operate together for up to 30 days (720 hours).

Heated hearings

With these and other provisions of the draft in question, hearings on the report may be as contentious as earlier DOE visits in August and October 1993.

Officials at Met-Ed say they have not ruled out making an appearance at the hearings, and a wide range of local opponents say they will participate, as they did in the earlier hearings.

DOE officials said they will consider both oral and written public comments as they prepare the final environmental impact statement.

Meantime, hundreds of York County residents will be poring over their copies of the draft report to get an idea of what the chances are they will see bulldozers moving this spring at the proposed project site on Route 116.

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A rush to judgment?

Official: Pressure on for quick report on cogeneration

BY JEFF KRALOWETZ
Dispatch/Sunday News

The developers of a proposed $380 million coal cogeneration plant near Spring Grove reportedly are pressuring fede l officials to hurry up their review of the plan's environmental impacts.

And local legislators have joined opponents of the 227-megawatt steam- and electric-generating facility in saying the race to meet a spring 1995 groundbreaking may cause serious environmental issues to escape public scrutiny.

Saying that he was "dismayed" that the Department of Energy has scheduled public hearings just three weeks after the draft review was issued, state Rep. Todd Platts, R-West Manchester Township, wrote to Energy Secretary Hazel O'Leary asking that the hearings be delayed until February.

The hearings currently are scheduled Dec. 14-16 at the York Fairgrounds.

"...It is clearly and unquestionably contrary to the basic principles of fairness and good government to only provide three weeks for the general public to review and adequately prepare to comment on the hundreds of pages of the Draft EIS (environmental impact statement)..." Platts said in his letter.

U.S. Rep. William F. Goodling, R-Manchester, also wrote to the secretary asking her to review the scheduling.

'(We're) definitely feeling pressure from the companies to get the (cogeneration) project moving.'

Jan Wachter, DOE project supervisor

He was contacted by Richard Clark of the residents' group Stop Targeting Our People, who said members need more time to respond to the federal environmental review, w ich could determine if the project gets $75 million in federal cost-sharing assistance.

DOE spokesman Bill Wicker said Friday afternoon the secretary's office had no record of having received the Goodling letter, and he did not know if the Platts letter had been received. He said t ere are no plans to change the hearing dates.

"Feeling pressure": While the DOE denies it is trying to limitpublic input or rush through analyses, project supervisor Jan Wachter said his staff is "definitely feeling pressure from the companies to get the project moving."

Wachter, who is supervising the report's preparation from his office in Morgantown, W.Va., said he had groups of 15 federal employees "working around the clock for two or three weeks"

See RUSH *Page A14*

■ RUSH

Cogeneration report pushed?

Continued from Page A1

to finish the draft report by Nov. 17.

The release of the draft has been delayed several times, including a delay of several months caused when York County Energy Partners decided to move the project from West Manchester Township to North Codorus Township in February 1993.

York County Energy Partners and its corporate parent, Air Products and Chemicals Inc., are the developers of the proposed project. They plan to begin construction this spring at a 36-acre site near the P.H. Glatfelter Co. paper mill in Spring Grove.

But construction can't begin until the federal environmental review is completed.

Asked if the companies have been urging the DOE to speed up its review, company spokesman Brad Hahn said, "They are a professional agency. The department is conducting the (review) as they feel prudent."

He added that while it is true the companies want the report completed by the spring, they have no official power to speed up the review.

Enough review time?: STOP's Clark said he remains concerned thatdepartment officials issued the review after having important source materials for less than 10 days.

Five key documents arrived at DOE on Nov. 8, 9, and 11, just days prior to the release of the department's review on Nov. 17.

"How does one study those documents, analyze them, find out what's pertinent, get copies printed up and distributed by the 17th?" said Clark.

Wachter said his staff worked from draft copies and partial versions of the source documents, allowing the staff to begin work on the report quickly after the final source documents were complete.

He didn't say how long he had the partial versions, but he said "we were actually reveiwing and revising some of the source reports as we were writing the draft EIS (environmental impact statement)."

He said setting the timing for the report was "a balancing act."

"We are conscious of their timetable, but we are also committed to producing a quality EIS," Wachter said. "We would not generate something deficient just in order to generate it on time."

What were the five documents?

The five reports that Department of Energy received in final form less than 10 days before issuing its environmental impact statement are:

- Final Environmental Information Volume I and II for the proposed York County Energy Partners Facility Utility Corridors (Revision 1.1). Received Nov. 8.
- Wetlands investigation report for the proposed roadway improvements -- PA Routes 516 and 116 interchange improvements. Received Nov. 8.
- Human health risk assessment report of the cooling tower emissions prepared by ENVIRON Corp. Received Nov. 9.
- Correspondence from ENVIRON Corp. for analysis of childhood and adult risks due to YCEP facility stack emissions. Received Nov. 9.
- Errata volume of supplemental information submitted to DOE during the preparation of the draft environmental impact statement. Received Nov. 11. The errata volume includes corrections and additions to information previously used in preparing the draft.

The hearing schedule

The U.S. Department of Energy will hold public hearings 7-10:30 p.m. Dec. 14-16 on its draft environmental impact statement for the proposed York County Energy Partners cogeneration facility in North Codorus Township.

The hearings will be held in the Old Main Building of the York Fairgrounds, 334 Carlisle Ave.

Residents who wish to speak at the hearings may reserve a time by contacting Dr. Suellen VanOoteghem, Morgantown Energy Technology Center, 3810 Collins Ferry Road, Morgantown, W.Va. 26507-0880 (telephone: 304-285-5443).

Envelopes requesting a speaking reservation should be labeled "York County Energy Partners Draft EIS."

Advance registration for presenting oral comments at the hearings will be accepted up to one week prior to the hearing date. Comments will be limited to 5 minutes

Written comments will be accepted at the same address, and must be submitted by Jan. 10,1995.

Copies of the draft environmental impact study will be on file at the following locations:

- Glatfelter Memorial Library, 101 Glenview Road, Spring Grove.
- York County Library, 118 Pleasant Acres Road, York.
- York County Courthouse. 28 E. Market St., York.
- U.S. Department of Energy Freedom of Information Reading Room, 1E-190,Forrestal Building, 1000 Independence Ave., S.W., Washington, D.C.
- U.S. Department of Energy Morgantown Energy Technology Center, 3610 Collins Feery Road, Morgantown, W.Va.

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Cogeneration impact statement

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
10099 Lincoln Way East
Fayetteville, PA 17222-9609
December 7, 1994

Bureau of Forestry

(717) 352-2211/352-2260
FAX (717) 352-3007

Mr. Jan K. Wachter, Director
Environment, Safety and Health
Program Support Division
Morgantown Energy Technology Center
P.O. Box 880
Morgantown, WV 26507-0880

Dear Mr. Wachter:

It is now clear that the proposed York County Energy Partners Cogeneration Project is not in my area of responsibility. Therefore, you may drop my name from your mailing list. Thank you for your cooperation in this matter.

W-KDS-12/7

Sincerely,

Kenneth D. Swartz
District Forester
Forest District 1

KDS:jac

An Equal Opportunity/Affirmative Action Employer

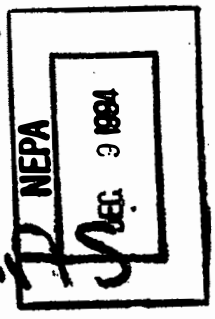
W-KDS-12/7 ***Response:*** Comment is noted.

KEYWORDS:
General

LEASE HELP

Dec 14th, WED. at 6:45 p.m. during a candle light vigil protesting against the coal burning plant they want to build in YORK! We only ask 45 minutes of your time to help say NO to more disease and polution in this area and on this earth. Please bring a candle and join us outside the old main building at the York Fairgrounds.

MERRY CHRISTMAS



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NEPA
DEC 12 1994

December 7, 1994

Dr. Suellen Van Ooteghem
Morgantown Energy Technology Center
3610 Collins Ferry Rd.
Morgantown, W.Va. 26507-0880

Dear Ms. Van Ooteghe:

Again I find it necessary to consult you concerning the proposed cogeneration facility proposed by York County Energy Partners in Springrove Pa.

Once again Mr. Platts and his followers are attempting to delay the normal process by demanding that the public hearings be delayed until after the first of the year. As I myself have experienced in the past, I am sure that Mr. Platts and his followers will do everything in their power to delay and disrupt the normal process no matter when it is held. It is obvious to me that their narrow-mindedness is only over shadowed by their unfounded accusation's aimed at the DOE and their handling of the process by which this project has been handled from the very beginning. The bottom line is that this is a good project. From every point of view, this project is safe, cleaner and needed very badly at this time. I received a copy of the Impact Statement and have been going over it very carefully for sometime now. As yet, I cannot find one aspect of the impact that this facility will have either directly or indirectly that has not been addressed. This leads me to belive that there in no valid reason to delay the hearings scheduled for December 14th through 16th, 1994.

In addition, the opinion's expressed by Mr. Platts and Mr. Goodling, is not shared by myself and the majority of those who will either directly or indirectly be affected by this project. Their agenda is to destroy this project regardless of overwhelming advantages. As I have relayed to you in the past, this facility is necessary for the environment, the working people and the taxpayers of York County.

I would also like to bring to your attention an article that appeared in the Sunday News here in York which quoted Mr. Jan Wachter, DOE Project Supervisor: Quote" We're definitely feeling pressure from the company's to get the project moving." Unquote. Given Mr. Wachter's position, I feel that it would be better served for ALL concerned if he would reserve his opinion's until after these proceedings have run their course, regardless of the outcome. This of course is only my opinion.

W-WDB-12/7

W-WDB-12/7

KEYWORDS:
Schedule

Response: There are various stakeholders when conducting an environmental analysis through the National Environmental Policy Act (NEPA) process. The pressure to maintain a schedule was as much from internal customers at DOE as from external groups (e.g., public and Industrial Participant).

In conclusion, I look forward to seeing you again in attendance at the up-coming hearings.

Sincerely

William D. Blackwell

William D. Blackwell
International Brotherhood of
Boilermaker's Local #13, AFL/CIO
2907 Village Square Drive
Dover, Pa. 17315

cc: Mr. Mike DiCicco, Business Manager, Boilermakers Local #13
Mr. Bradley F. Hahn, Dir. Business Development, York County Energy Partners

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POLLUTION

NIX ON NO_X

Chemical precursors to acid rain, oxides of nitrogen (NO_X) are major culprits in many an air-pollution story. Now Asea Brown Boveri of Sweden has introduced two industrial systems that dramatically reduce NO_X emissions from coal- and gas-fired power plants.

How dramatically? Conventional coal-fired boilers typically emit 500 to 1,000 parts per million (ppm) of NO_X. ABB's new TFS-2000 pulverized-coal furnace, on the other hand, produces a mere 150 ppm. There are two keys to this reduction: First, a "dynamic classifier" controls the size of the coal powder, only feeding particles as fine as talcum powder into the furnace. Second, just a small amount of air is introduced with the fuel. This deprives the flame of oxygen; with less oxygen, the furnace produces harmless nitrogen rather than NO_X. To fully burn the coal, more oxygen is added in controlled amounts at several points along the stack.

No less impressive is the EV Burner. While typical gas burners release 150 to 300 ppm of NO_X, the EV Burner emits less than 15 ppm. The system precisely controls the gas-and-air mixture's vortex-shaped flow into the burner and keeps the temperature relatively low to discourage NO_X formation.—*M. D.*

from Popular Science Mag.

Dr. Suellen A. Van Ostenhem

COGEN

Maybe the 75 million should be spent on something like this if the money must be spent or lose

W-PNP-12/19

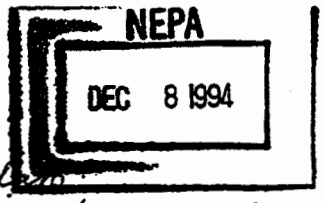


(Article layout altered for ease of comment spacing)

W-PNP-12/19

KEYWORDS:
Government funds

Response: The cooperative agreement between DOE and York County Energy Partners, L.P. (YCEP) specifies that this $75 million is to be used specifically for the design, construction, and operation of the Clean Coal Technology (CCT) project proposed. For any other uses, these monies either have to be reprogrammed within the CCT Program in order to be allocated to another CCT project or congressionally mandated for use in another area.



Dec. 3, 1994

Dear Madam

I wrote to you before in opposition to a proposed coal-burning to be built in West Manchester Township — now I'm writing again to oppose the same plans, now to be located in N. Codorus Township. This new location is but a few miles from the first one. Since the method to be used is already in use, this Company should not be given the grant. We read about better methods already in use. I attended nearly all the hearings etc. for the West Manchester plant - and I feel too many questions weren't answered, or laughed off. Now, the long-coming reports are here. According to reports W-GLK-12/3a W-GLK-12/3b

W-GLK-12/3a

KEYWORDS:
Commercialization status

Response: Atmospheric circulating fluidized bed (ACFB) combustion technology is in use, but not at utility scale. The Federal funding in question is not a grant, but cost-shared financial support which would reduce the York County Energy Partners, L.P. (YCEP) financial risk from demonstrating a technology which has not yet been demonstrated at this scale. Please refer to the responses for Comments D-39/13, D-37/16, and D-100/9 for more information regarding the need for demonstrating this technology at this scale, the consideration of alternative technologies, and the timeliness of this technology.

W-GLK-12/3b

KEYWORDS:
Documentation length
NEPA
Schedule

Response: Please see the responses to Comments D-31/22, D-32/13, and D-61/23.

2

they are so vast it'll be impossible to review them before the meetings are held. The meetings should be put off 'til later to provide this time. Many people are unable to attend because duties and responsibilities of the season. I see no real advantages for this plant to be built here. We truly do not need any more pollution of any kind. (continued)

Very sincerely

Genevieve L. Ketterman
1980 Worth St
York, PA 17404

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Margaret Klunk
RD #4 Box 4624
Spring Grove, PA 17362

MAIN POINTS OF CONCERN-DRAFT EIS
FOR PUBLIC HEARINGS HELD DECEMBER 14, 15 AND 16

Notice of the issuance of the DEIS and the Dec. 14, 15 and 16, 1994 Public Hearings first appeared on Dec. 3, 1994 in the York Daily Record. This is only 11 days notice which is too little notice for those who may have wished to make thoughtful comment. W-MK-12/21a

The York County Library Reading Room at 118 Pleasant Acres Road does not now, nor has it ever existed, even though it is listed as a DOE Reading Room in every public notification.

The following source documents were unavailable in the Public Reading Rooms on or before Nov. 29, 1994: W-MK-12/21b

Clean Coal Technology Program: Final Programmatic Environmental Impact Statement (1989)

Wastewater Reuse Feasibility Study (May 1994)

Draft Environmental Information Volume for the YCEP Cogeneration Facility: West Manchester Site (July 1992)

Air Quality Dispersion Analysis (August 15, 1994)

Five of the source documents were just finalized from November 8 through November 11 and sent by Dynamac Corporation to the libraries on November 22, 1994. How were these documents reviewed so quickly? Was an adequate review conducted or was it fast-tracked because as Jan Wachter stated to the EPA, "As a test case for the Department of Energy's initiative in "reinventing government" as it applies to the NEPA process, the DOE is on an aggressive schedule for developing the EIS for this proposed project. We are benchmarking the development and issuance of this EIS in terms of time and cost. As such, we anticipate that the DEIS will be released to the public in September, 1994, and a record of decision issued by February, 1995."

According to the DEIS over 277 written comments were mailed to DOE on or before the November 5, 1993 close of the scoping period, however only the 35 submitted on the evenings of the scoping hearings were included in the public record. What happened to the rest? W-MK-12/21c

W-MK-12/21a

Response: Please see the response to Comment D-59/15.

KEYWORDS:
NEPA
Schedule

W-MK-12/21b

Response: Please see the response to Comments D-59/22, D-60/2, and D-60/13.

KEYWORDS:
Document availability
NEPA
Reading rooms
Schedule

W-MK-12/21c

Response: Please see the response to Comment D-61/14.

KEYWORDS:
Comments
NEPA

YCEP's extensive site search lasting more than one and one half years began in early 1990 and is described in the DEIS as resulting from a Met-Ed power generation solicitation. During that same time period the City of Tallahassee was to be the recipient of the "cooperative agreement." Was Air Products and Chemicals searching for a site to build a co-generation facility without any Federal monies being involved? May we assume then that Brad Hahn of YCEP was correct when he stated this project would go forward without the $75 million? W-MK-12/21d

Our group has asked during the scoping period and once again when commenting on the Implementation Plan that pollution resulting from mining and washing and transportation of nearly 1 million tons of coal per year for 25 years be included in the EIS. If DOE can cite a study stating that, "An indirect, positive impact [of this project] would be realized in the coal production industry as a result of 424 jobs being provided annually throughout the 25-year life span of the project," then DOE can certainly estimate the resources committed to the transportation of the coal, limestone and ash byproduct and the cost in pollution of these activities including the mining and cleaning of the coal. It is interesting to note that in a letter from Heather Harvey of the Allegheny National Forrest to DOE which was included in the Agency Coordination Section of the DEIS she expresses a similar desire. She states, "..., there needs to be an acknowledgment in the analysis that the real environmental impacts of the project are in the area that's producing the 2400 tons of coal per day needed to power the project." W-MK-12/21e

A Phase I archeological investigation is currently underway for the electrical interconnection. The DEIS states, "The Phase I results of the investigation are expected to be submitted to the state Pennsylvania Bureau of Historic Preservation in the fourth quarter of 1995." Wouldn't this be too late? W-MK-12/21f

It is unfair to use the West Manchester site as an alternative site. Again, it seems this project is being fast-tracked with the local community being the loser. For purposes of the EIV the West Manchester and the North Codorus sites were lumped together as one project. DOE allowed this, most likely to save time. Site specific meteorological studies were not required at the North Codorus site, the data collected at West Manchester was allowed to be used instead. Short changed again in DOE's mad rush to get this EIS completed before this technology has been demonstrated at this scale in the United States as it has been in other countries. W-MK-12/21g

Under the no action alternative it should not be assumed that new power generation facilities would be built. Met-Ed had a short-fall in electrical generation in 1994 and 1995, however by the time this proposed facility would be built there would be no need. W-MK-12/21h

W-MK-12/21d

KEYWORDS:
Alternative technologies
Site selection

Response: Air Products had proposed to Metropolitan Edison Company (Met-Ed), in August 1992, a pulverized coal plant with flue gas desulfurization cogeneration facility that would be located in West Manchester Township. Only when the City of Tallahassee decided not to move forward with the project did Air Products change the design of the project to a circulating fluidized bed combustor.

Representatives from York County Energy Partners, L.P. (YCEP), including Mr. Brad Hahn, have formally denied making the statement that the proposed circulating fluidized bed (CFB) project would move forward without government funds. YCEP has stated on numerous occasions that they would not proceed to completion with a coal-fired CFB cogeneration project without government funds.

W-MK-12/21e

KEYWORDS:
NEPA
Scope

Response: Please see the response to Comment D-139/24.

W-MK-12/21f

KEYWORDS:
Archaeology
Utility corridor

Response: The Pennsylvania Bureau for Historic Preservation has reviewed the Phase I Archaeological Survey for the proposed Cogeneration Facility (main site), and has concurred that the project would have no effect on archaeological resources (letter dated November 29, 1993).

Subsequently, a Phase I Archaeological Survey was completed for the proposed upgrade of the intersection of Route 116 and Route 516, near Spring Grove and was submitted to the Pennsylvania Bureau for Historic Preservation in July of 1994. A Phase I Archaeological Survey was also completed for the proposed electric transmission corridor, from the proposed plant site to the Bair Substation, and was submitted to the Pennsylvania Bureau for Historic Preservation in October of 1994.

In January 1995, Bureau for Historic Preservation personnel conducted a site inspection of the proposed corridor and highway intersection. Following the site inspection, the Bureau contacted DOE and reported that both surveys appeared to adequately assess the potential for impact to archaeological resources (no impact), but insufficiently surveyed historic resources potentially eligible for listing on the National Register. DOE has received a letter from the Pennsylvania Bureau for Historic Preservation (letter from Barrett to Van Ooteghem, dated April 14, 1995), indicating that all archaeological reports submitted for the proposed project and its electrical interconnection meet the required standards and specifications and that further testing for archaeological resources will not be necessary.

The Bureau requested that a survey of eligible properties be completed for the project area, including the utility corridor, and determination be made of the effect to those properties found eligible for listing. With DOE concurrence, York County Energy Partners retained Historic York, Inc., to perform the Historic Sites Survey and Determination of Effect. This firm, approved by the Bureau for Historic Preservation, conducted the field work necessary to complete the survey in early

page 3 Comments on the DEIS

The Draft EIS goes into a very sanitized version of the history of this project. The fact that a voter referendum was responsible for the ultimate demise of the City of Tallahassee project should be included in the DEIS. Likewise, YCEP's seeking opportunities to obtain air emission offsets was not the primary reason for relocating the project from W. Manchester to N. Codorus. In reality W. Manchester had zoning/land use ordinance which precluded buildings exceeding 100 ft. YCEP was involved an extensive and expensive zoning battle with possible litigation expenses looming in the future. An easy siting opportunity in North Codorus with its absence of zoning ordinances could be achieved by relocating the proposed YCEP project adjacent to the P.H. Glatfelter Co. W-MK-12/21i

I am attaching the comments I made to Dr. Van Ooteghem on the Implementation Plan. Since the DEIS failed to address any of my comments satisfactorily, my questions and comments are as valid today in reference to the Draft EIS as they were on July 29, 1994, in response to the Implementation Plan.

Attachments:

July 29, 1994 letter to Dr. Van Ooteghem concerning comments on the Draft Implementation plan for the proposed York County Energy Partners circulating fluidized bed cogeneration project (4 pages)

[redacted] (3 pgs)

1995. Results have been made available to the Bureau for review and concurrence. Sections 3.1.11.1, 3.1.14.11, 4.1.11.1, and 4.1.14.1 of the FEIS describe the results of the Bureau for Historic Preservation review of the Survey.

W-MK-12/21g

Response: Please see the responses to Comments D-121/14, D-141/15, and D-155/11.

KEYWORDS:
Alternative analysis
Alternative site
Meteorological data

W-MK-12/21h

Response: Please see the response to Comment D-83/5 which addresses this issue. Also, DOE-Headquarters' assessment of the need for power has been attached as Appendix K to the FEIS.

KEYWORDS:
Alternative analysis
Assumptions
Need for power

W-MK-12/21i

Response: Please see the responses to Comments D-67/18, D-121/14, and D-326/19.

KEYWORDS:
Referendum
Site change
Site selection
Zoning

Margaret Klunk
R.D.#4 Box 4624
Spring Grove, PA 17362
phone (717)225-3769

July 29, 1994

Suellen A. Van Ooteghem, Ph.D.
Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Morgantown, West Virginia 26507-0880

Re: COMMENTS ON THE DRAFT IMPLEMENTATION PLAN FOR THE PROPOSED YORK COUNTY ENERGY PARTNERS CIRCULATING FLUIDIZED BED COGENERATION PROJECT

Dear Dr. Van Ooteghem:

I am responding under protest to your request for comment on the Draft Implementation Plan by the imposed deadline of July 29, 1994. I do not feel the deadline is reasonable. Both the Clarks and the Klunks had vacations scheduled for this past week, Dr. Dabb has a personal problem which required him to go to Denmark, and Todd Platts is in the hospital with kidney stone problems. Considering this IP was scheduled to be completed, according to the August 15, 1993, York Sunday News, in December of 1993, it is already over 7 months behind schedule. How critical can this timeline be?

On the history of this project (Background 1.1) I would like to suggest some corrections or additions. The text is unfairly biased showing DOE and this project strictly in a positive light. On page 3 the narrative says "... in September of 1991 the City of Tallahassee indicated that, primarily for economic reasons, it no longer wished to proceed ...." According to the Thursday, May 26, 1994, TALLAHASSEE DEMOCRAT, "When Tallahassee voters rejected a "clean coal" plant in a 1992 referendum, the city sold the engineering plans to a Pennsylvania company for $3 million." W-MK-7/29a

On page 4 the text indicates that the reason for YCEP requesting a site change from W. Manchester to N. Codorus was fueled by YCEP's seeking air emissions offsets. The fact that YCEP was bogged down in zoning hearing problems is not mentioned. W. Manchester has a 100 ft. height restriction for which YCEP would have needed a variance for several structures. Consequently, YCEP threatened to sue the previously proposed host municipality. In fact, W. Manchester Township is out $75 thousand, which may not seem like a lot of money to the Federal government, but is a substantial sum for a municipality to waste defending their zoning laws. Compared to the problems encountered by YCEP in West Manchester Township, North Codorus, with its absence of zoning laws, must have seemed very inviting. W-MK-7/29b

Note: Although comments W-MK-79a through W-MK-79i are in response to a review of the implementation plan for the proposed project, the commenter stated that the issues were still valid to the review of the DEIS. Thus, the comments have been responded to in this FEIS.

W-MK-7/29a

KEYWORDS:
Referendum
Site Change

Response: Rejection of the proposed project to be sited in Tallahassee was based on several issues, including environmental impacts and deteriorating economics of the project. No DOE money was involved in York County Energy Partners, L.P.'s (YCEP's) purchase of the "engineering plans" from the City of Tallahassee. Please see the response to Comment D-326/19.

W-MK-7/29b

KEYWORDS:
Site change
Zoning

Response: The siting of the proposed project at either the West Manchester or the North Codorus sites has advantages and disadvantages. All sites had critical issues that must be resolved before the project could go forward. Zoning was one of the critical issues associated with the West Manchester site. Please see the responses to Comments D-67/18 and D-121/14.

On page six under the heading of 1.2 NEPA STRATEGY it is stated that,"The YCEP EIV will be one of the major source documents used to prepare the EIS." It seems irregular that the EIV submitted for West Manchester in August 1992 is labeled DRAFT and the one submitted for North Codorus in March 1994 is called FINAL. The EIV is supposed to be site specific yet the draft for West Manchester was adequate to prepare the final for the North Codorus site? As far as the EIV goes, the two projects are treated as one (draft and final) yet for the purpose of the EIS, 4.3.2, DOE is plans to consider the West Manchester site to be the alternative site. One way or the other, we are getting short-changed. W-MK-7/29c

DOE, in the writing of this draft, once again displays its prejudicial bias on page 19 section 3. DESCRIPTION OF THE SCOPING PROCESS. The text reads, "In response to the degree of public interest in this proposed Federal action, and to ensure that all individuals who wish to speak were accommodated, the public scoping meeting was continued on October 5, 1994." According to an article in the August 15, 1993, York Sunday News, (enclosed) over 50 speakers were on the list to speak, which even considering the 5 minute per person time limit, would extend the meeting until well past midnight. The writer goes on to say, "Although DOE officials have received calls asking them to extend the hearing to additional nights, Wagaovich (DOE spokesman) says they won't." In truth, only after public outcry from citizens and citizens' groups plus pressure from Representative Bill Goodling and Senator Arlen Spector, did DOE agree to a continuation of the scoping meeting. Once again this goes to the heart of our mistrust of the process and our skepticism about the fairness and accuracy of DOE's evaluation of this project's environmental impacts. W-MK-7/29d

In the November 1992 Sufficiency Review of the DEIV, page 3, the reviewer says, "The discussion of alternatives is very superficial, especially with regard to alternative site selection. Sufficient detail must be provided to support the statement in the EIV that an "exhaustive" site selection process was conducted." The Final EIV 4.2 ALTERNATIVE SITES says the P.H. Glatfelter site was the final selection resulting from an extensive site search, which was initiated in 1990 as a result of a publicly announced power generation solicitation on the part of Met-Ed. The fact is Met-Ed did have a generation shortfall but by the time this plant would be built they will have a substantial reserve capacity. YCEP has based their site selection primarily on this "need" yet now on page 55 of DOE's Draft IP under 4.3.4 ALTERNATIVES AND ISSUES DISMISSED FROM FURTHER CONSIDERATION, it reads "the EIS will discuss the need for the project in relation to the goals of the CCT Program, but <u>will not evaluate the need for electrical generation.</u> This illustrate more hypocrisy in DOE's desperate attempt to get this project sited. W-MK-7/29e

W-MK-7/29c

KEYWORDS:
Documentation
Schedule

Response: The two environmental information volumes (EIVs) were developed as separate documents; one was not the draft for the other. DOE notes that there is some information that is common to the proposed projects at both the North Codorus and West Manchester sites. As such, some information appears in both reports.

Normally, a draft EIV is not released to the public. A draft EIV for the West Manchester site was prepared, and from that draft version a final EIV would have been prepared once all comments had been resolved. Because of the change in the proposed site (to North Codorus Township) for the project, however, a final EIV for the West Manchester site was never completed.

Individuals requested a copy of the West Manchester EIV. In an attempt to provide as much information as possible to the public, the draft EIV (normally unavailable to the public in a draft form) for the West Manchester site was released.

The development of the EIV for the North Codorus Township site followed the traditional procedure. A draft EIV was submitted (September 1993), comments were resolved, and a final EIV was produced (March 1994). As is normally the process, only the final EIV for the North Codorus Township site was released.

W-MK-7/29d

KEYWORDS:
NEPA
Procedures

Response: The quoted language from the text of the DEIS is accurate and certainly not intended to be misleading. The fact is, DOE held an additional scoping meeting to ensure fairness in light of the substantial amount of public interest in the proposed project.

As a matter of explanation, when DOE announces that a public (scoping) meeting is to take place on a certain date and within a certain timeframe, DOE has a legal obligation to precisely meet this date and timeframe. In order to continue the meetings (provide more time for public comments), new notices need to be placed in the Federal Register and meeting notices published in the York County area to advertise the upcoming (continuation) meetings. Once the degree of public interest was apparent, DOE immediately began to consider the need for a Continuation Public Scoping Meeting. DOE was unable to release information regarding Continuation Public Scoping Meetings, however, prior to publication of this information in the Federal Register. When scheduling the dates for the public hearing in late 1994, DOE announced three days of consecutive hearings (December 14, 15, and 16) which equates to a "lesson learned."

W-MK-7/29e

KEYWORDS:
Met-Ed
Need for power
Need for project

Response: Please see the response to Comment D-83/5 which addresses this issue.

In the Final EIV, 2.1 SUMMARY OF PURPOSE AND NEED it says, "The proposed facility would also assist in meeting an energy shortfall ..." and again, 3.2 DESCRIPTION OF THE PROPOSED PROJECT, "... the proposed YCEP facility would supply electric power to economically and reliably meet projected shortfalls of energy and capacity thereby assisting Met-Ed in meeting its energy demands." YCEP has certainly opened the door for the EIS to cover the electrical generation need by declaring that need, a primary consideration in their site search and selection, in their description of the proposed project, and in the purpose and need for the proposed project. The question of electrical generation need was also addressed by several commentators at the scoping meetings and therefore it deserves consideration in the EIS.

(continued)

On Page 61, 2.2.3 No-Action Alternative it states, "[An introduction will describe the no-action alternative (DOE does not provide cost-shared support for the proposed YCEP Cogeneration site), as well as the reasonably foreseeable consequence resulting from its selection (i.e., new power generation facilities would be required in order to meet the need for electrical power in the region)]." Will the Met-Ed documents describing their reserve capacity from 1997 on be considered or not? The reasonable no-action alternative considered should be that no facility will be built in York County, because there is no "need." Another consequense of the no-action alternative that should be examined in the EIS is what reductions of emissions in Glatfelter's #4 boiler would be required in 1995 by the Clean Air Act of 1990.

(continued)

W-MK-7/29f

Table 7, page 46, the fourth comment states, "An individual requested that the quantity of emissions that would potentially result from related coal processed (e.g., mining, transportation, coal washing, burning, disposing) be documented." In response DOE declares, "These actions are not considered to be connected actions for this EIS due to the commodity or shared nature of the resource or activity." I do not understand how they can be excluded. The demand for nearly one million tons of coal a year certainly causes mines to be mined, coal washing facilities to be constructed and operated and trucks to transport that amount of coal, limestone and ash byproduct in and out of the facility. These are direct consequences of the action being proposed and should definitely be included in the EIS.

W-MK-7/29g

In the final EIV, referring to the economic benefits derived from more coal consumption at the N. Codorus site, Dr. Adam Rose states, "The benefits of operation will only be marginally higher in York County because the coal is mined elsewhere. However, the benefits within the State should increase by about 33%." He adds in Appendix B that "The special multipliers in Table 6 are calculated as follows: the total direct, indirect, and induced jobs stimulated by the operation of the cogeneration facility subsume the direct, indirect and induced jobs created by extraction of $30 million

W-MK-7/29f

KEYWORDS:
Alternative analysis
Boiler No. 4
Clean Air Act
Emission reduction

Response: The P. H. Glatfelter Company's Power Boiler No. 4 is an industrial boiler used to produce steam. The provisions of Title IV of the Clean Air Act (CAA) as amended in 1990 pertain to electric utilities and electric generating facilities. Within the provisions of Title IV (the so-called "opt-in" provisions), certain industrial boilers may optionally comply with the emission reductions provided for in Title IV and hence create sulfur dioxide (SO_2) "allowances" which can be sold on an open market to electric utilities. However, no reductions of emissions from P. H. Glatfelter Company's Power Boiler No. 4 are prescribed by the provisions of Title IV of the CAA Amendments of 1990. Please see the response to Comment J-89/7.

W-MK-7/29g

KEYWORDS:
Coal cleaning
Coal mining
Connected actions
Transportation

Response: Please see the response to Comment D-139/24.

dollars of coal annually to fuel the facility." Certainly if Dr. Rose can calculate the number of jobs and the economic benefits, thereof, as a consequence of this action, DOE should be able to calculate the pollution associated with the extraction of $30 million dollars worth of coal annually. If pollution created is not a "connected action" for the EIS, neither should Dr. Rose's assumptions be considered a "connected action." His findings should be considered non-valid and not relied upon or cited in the EIS. W-MK-7/29h

Under 3.1.2 Air Quality it states, "The existing ambient air quality conditions, atmospheric visibility, climate and meteorology of the areas surrounding the site of the proposed facility will be described." This would be an impossible task if DOE is relying on the EIV as its source. In the sufficiency review dated November 1992, page 19, the reviewer writes, ".... it is stated in the fourth paragraph that they are using meteorological data from the National Weather Service station at Harrisburg, some 25 miles NW of the project site. This may not be valid and applicable. At METC we were told that due to the complex (hilly) terrain, we could not use weather data from our airport 5 miles away, but rather, that we needed to obtain onsite meteorological data. The following need to be monitored: wind speed, wind direction, temperature, solar radiation, dew point, relative humidity and barometric pressure." It is reasonable for us to demand these measurements be collected at the proposed North Codorus site. The site is located in a valley surrounded by hilly terrain, the Glatfelter plant creates a minicli mate of its own, and the combined water output (evaporation) of the two plants would be approximately 4.5 million gallons per day. DOE would be derelict in their duties if they did not require the collection of the site-specific data requested in the November 1992 Sufficiency Review of the Draft EIV (i.e., wind speed, wind direction, temperature, solar radiation, dew point, relative humidity and barometric pressure). It should be noted that this requirement was not addressed in the Final EIV or in the Sufficiency Review of that document dated April 1994. W-MK-7/29i

Given more time a more thorough critique of this Draft Implementation Plan may have been possible. I thank you for the opportunity to comment even though it was a relatively short time period in which to complete the review of this 83-page document. I sincerely hope that this is a "DRAFT" IP and that you choose to amend it to include those topics mentioned herein.

Sincerely,

Margaret Klunk

W-MK-7/29h

Response: Please see the response to Comment D-139/24.

KEYWORDS:
Coal mining
Connected action
Economic benefits

W-MK-7/29i

KEYWORDS:
Meteorological data
Modeling

Response: DOE's sufficiency review, normally an internal report, was used as a guideline for changes to be performed on the draft Environmental Information Volumes (EIVs). Upon further discussion with regulatory agencies and the industrial partner, DOE deemed the meteorological information provided in the EIVs to be appropriate.

The type and amount of meteorological data collected for presentation in the Environmental Information Volume and/or EIS is dependent on the input parameters of the air quality, fogging, and icing modeling to be performed. As discussed in responses to Comments D-62/8 and D-155/11, appropriate data were used in meteorological modeling. Data not needed for modeling purposes and for which no cause and effect relationship to environmental impacts could be attributed are ancillary to the National Environmental Policy Act (NEPA) impact analysis, and consequently are not required to support the analysis and are not included in the EIS.

Sh 1 of 2
P.N. Pathe

DR. S. A. Van Pateghem
EIS on YCEP

1. Can you breathe ERCs? W-PNP-12/94a
2. Are ERCs good for your health? They make accounts happy
3. Why of a plant that in 6 yrs will exceed SO_2 limits? I know congress says ECRs are OK.
4. Aren't emission values accumulative? (ie 3 years + 3 years = 6 years)
5. What would our air look like without ECRs that aren't shown in the report?
6. Why are the word "to be demonstrated" necessary? W-PNP-12/94b
There are commercial units this size available in the country on the market with warranties from a place in Georgia. Aren't there units in other countries this size that could be looked at cheaper than $75-M?
7. If our air is soo good how come we are slated for the more restrictive ~~de~~ auto emissions test? W-PNP-12/94c
8. Is the air pollution from additional line pulverizing and crushers included?
9. Is pollution from vented fly ash included in our clean air?

W-PNP-12/94a

KEYWORDS:
Cumulative effects
ERCs

Response: Because the proposed York County Energy Partners, L.P. (YCEP) project's maximum permitted oxides of nitrogen (NO_x) emission rate of 1,437 tons/yr exceeds the 100 tons/yr threshold level for a major source and because the proposed project would lie within the Northeast Ozone Transport Region, a total of 1,652 tons/yr of oxides of nitrogen (NO_x) emission reduction credits (ERCs) would need to be obtained to provide the 1.15 to 1 offset required by EPA air permitting regulations. As described in Section 4.1.2.3 of the EIS, a total of 1,700 ERCs would be obtained from a combination of the curtailment of the P. H. Glatfelter Company's Power Boiler No. 4, Reasonably Available Control Technology (RACT) modifications to that boiler, and ERCs acquired from the Transcontinental Gas Pipe Line Corporation. The net result of the ERC requirement and the associated 1.15 to 1 offset would be a regional reduction of a minimum of 272 tons/yr of oxides of nitrogen (NO_x) emissions. Emissions reductions by the promotion of such regulatory mechanisms as ERC requirements could be considered to be beneficial to human health and the environment.

The air quality analysis described in Sections 4.1.2.6 through 4.1.2.11, analyzed the impacts of the expected emissions from the proposed YCEP project on ambient conditions without the benefit of ERC reductions or other factors such as the curtailment of the P. H. Glatfelter Company's Power Boiler No. 4. As is stated in Section 4.1.2.6 of the EIS, the air quality modeling assumed very conservative operating parameters. Modeling results indicated that air quality would remain well below National Ambient Air Quality Standards, and concentrations of criteria pollutants would be 27 percent or less of their respective allowable Prevention of Significant Deterioration (PSD) increments, or would be below EPA significance levels.

The proposed YCEP facility would have a sulfur dioxide (SO_2) emissions rate of 0.25 lb/MMBtu, which is four times lower than the Clean Air Act (CAA) requirement of 1.2 lb/MMBtu for the Year 2000. In addition, as described in Section 4.1.2.3, under the provisions of Phase II of Title IV of the CAA Am endments of 1990, YCEP would be obligated to obtain sulfur dioxide (SO_2) "allowances" to emit sulfur dioxide (SO_2) from the proposed facility after January 1, 2000. This Phase II obligation would not be unique to the proposed facility: the electric utility units in the contiguous United States that intend to operate beyond 2000 will become subject to the Phase II obligations and requirements of Section 405 of the CAA. YCEP intends to obtain the necessary allowances with the knowledge that if no allowances are obtained, the proposed plant would not be able to operate beyond 2000.

The total amount of air pollutants at a given receptor results from the emissions from the sources influencing that receptor (a "linear" relationship). In more subtle, large-scale regional situations, due to the complexities of the chemistry in the atmosphere, processes such as acidic deposition may be not-quite linear (a so-called "non-linear" relationship).

Sh 2 of 2
P. N. Potter

10. On chloroform risk assessment, do you expect an unbiased report from Air Products? W-PNP-12/94d

11. By late 1995 EPA Report on radionuclide is due the plant will be to far along to stop, then what? W-PNP-12/94e

12. Electrical Power - as you said - there is a shortage, but not here, why not put the shortage out for bids rather than give Air Prod #75M.? W-PNP-12/94f

13. are all boiler # numbers from the pre-update data or from updated data? W-PNP-12/94g

14 Will the safety valve noise be whatever the plant gives? W-PNP-12/94h

15 What good is a CNA code if only Air Prod can enforce it.? W-PNP-12/94i

16. Overall - the Codorus creek doesn't gain much - does it? It's always going to look and smell the same I guess. W-PNP-12/94j

P Philip N Potter
RD8 BOX 143A
York PA 17403
717-792-4870

W-PNP-12/94b

Response: Please see the responses to Comments D-39/13 and D-42/2.

KEYWORDS:
Commercialization status
Project costs

W-PNP-12/94c

Response: The "restrictive auto emissions test" is not within the scope of the analysis for the proposed action. Such issues fall under the purview of the State Implementation Plan (SIP) for Pennsylvania, and it would be more appropriate for any guidance to be directly obtained from the Pennsylvania Department of Environmental Resources (PADER).

KEYWORDS:
Auto emissions
Fly ash
Fugitive dust
Particles

The Prevention of Significant Deterioration (PSD) Air Quality Permit Application for the proposed York County Energy Partners, L.P. (YCEP) project was submitted in January 1994 to PADER by YCEP and is based upon Best Available Control Technology (BACT). The PSD Air Quality Permit Application includes review of limestone handling and storage, and control of particulate emission, including fly ash. Emission estimates are based on such review. Section 3.1.2 of the EIS describes the current air quality in the region of the proposed YCEP project. Discussions of air quality impacts of the proposed YCEP project may be found in Sections 4.1.2.6, 4.1.2.6.1, 4.1.2.6.2, and 4.1.2.6.4, and are based on the analyses performed in the PSD Air Quality Application.

W-PNP-12/94d

Response: The risk assessment analyses were conducted by Environ, Inc. As with most of the specific source reports that were used in developing the EIS, contractors were utilized to research various topics. These reports were reviewed not only by DOE representatives (e.g., METC, Office of National Environmental Policy Act (NEPA) Policy and Assistance - HQ, Office of Fossil Energy - HQ, General Counsel - HQ) and their support contractors (both at a field and headquarters level), but also by the Army Corps of Engineers and its contractor, Dynamac Corporation. Thus, there was "third-party" involvement in the writing and review of the EIS. These steps were taken to ensure the unbiased review of information and writing of an objective EIS.

KEYWORDS:
Chloroform
Health effects
Oversight

See also the response to Comment D-125/12.

W-PNP-12/94e

Response: The referenced report by the EPA, which is expected in late 1995, is a report to the Congress regarding hazardous air pollutants from the combustion of fossil fuels. No additional regulations will be proposed by the report, nor is it anticipated that the EPA will soon propose new standards for radionuclide emissions on coal-fired boilers.

KEYWORDS:
EPA Report
Radionuclides

Unlike criteria pollutants, which are regulated by the National Ambient Air Quality Standards (NAAQS), radionuclides are covered under the Hazardous Air Pollutants (HAP) section of the Clean Air Act. HAPs are regulated "at the source" in the form of industry-specific emissions standards. If in the future EPA should, through its

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formal regulatory process, promulgate a NESHAP (New Emission Standard for Hazardous Air Pollutants) for radionuclide emissions from coal-fired industrial and utility boilers, existing sources (including those that would be under construction) would probably be required to comply with the new standard within 90 days following the effective date of the new standards in accordance with 42 U.S.C Section 7412(c)(1)(B)(i).

W-PNP-12/94f

KEYWORDS:
Energy management
Need for power

Response: Metropolitan Edison Company (Met-Ed) has already entered into a power purchase agreement with the York County Energy Partners, L.P. (YCEP) under direction of the Pennsylvania Public Utility Commission (PUC). This power purchase agreement is contingent on the availability of DOE funds. The mechanism by which this agreement was reached between the industrial partner and Met-Ed is beyond the purview of analysis in the EIS, except to say that a consent agreement was established in which the PUC directed Met-Ed to enter into the power purchase agreement which consequently made the proposed project feasible from the Industrial Participant's point of view. YCEP has stated on numerous occasions that without DOE cost-sharing, the proposed project would not go forward as described due to YCEP's analysis of both economic and timing considerations. If the proposed project does not proceed, many possible courses of action exist. Power needs might be filled by purchase of power from elsewhere in the Mid-Atlantic region, or a bid might be put out for a different project. A renegotiation of the existing power purchase agreement with YCEP to investigate other technologies without government funds is also a possibility. Please also refer to the response to Comment D-83/5.

W-PNP-12/94g

KEYWORDS:
Air emissions
Boiler No. 4
RACT

Response: The numbers presented in the EIS assume that Reasonably Available Control Technology (RACT) for oxides of nitrogen (NO_x) control had already been incorporated into P. H. Glatfelter Company's Power Boiler No. 4.

W-PNP-12/94h

KEYWORDS:
Noise
Safety valve

Response: As noted in Section 4.1.7 of the EIS, normal pressure release at the proposed facility would be handled by an automatic pressure control valve. The sound levels from this valve would be dampened by a vent silencer. The safety relief valve is the backup pressure relief mechanism, and would only release pressure if the automatic system failed. It can be functionally likened to the temperature/pressure relief valves on a domestic hot water tank or residential boiler, which serve to prevent rupture of the tank or boiler under a "worst-case" failure, but which rarely, if ever, come into play. Safety and periodic inspection and maintenance considerations preclude installing a vent silencer on the safety relief valve.

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W-PNP-12/94i

KEYWORDS:
CMA code
Pollution prevention

Response: The Chemical Manufacturers Association (CMA) Responsible Care Pollution Prevention Code of Management Practices is a self-imposed obligation. These guidelines are not legally enforceable by any Federal or state agency. However, the guidelines are not without value. Such guidelines establish some of the standards of care (towards the environment) that are practiced within an industry. York County Energy Partners, L.P. (YCEP) has declared that it would implement the code in stages over the first years of operation.

W-PNP-12/94j

KEYWORDS:
Codorus Creek
Odor

Response: As reported in the EIS (Section 3.1.4.1), Table 3.1-8 (Summary of Codorus Creek water quality studies), water quality in Codorus Creek has gradually improved over the last 20 years. There is reason to believe that additional improvements will occur in the future. P. H. Glatfelter Company modernized its pulp mill wastewater processing to reduce impacts related to color, heat, odor, dissolved oxygen, and chlorinated organics [P. H. Glatfelter Company, September 14, 1994, application to the Susquehanna River Basin Commission (SRBC) for a permit modification]. These improvements would lessen impacts from the proposed project. For example, prior to the Pulp Mill Modernization Project, downstream color averaged 220 color units; after modernization, downstream color has averaged 150 to 160 color units (Bob Callahan, P. H. Glatfelter Company). The reductions from the Pulp Mill Modernization Project tend to offset, partially or totally, the impacts expected from the proposed York County Energy Partners, L.P. (YCEP) project. For example, the downstream color would increase to about 165 color units for a net improvement of 55 color units. The proposed project itself would lower the thermal impact of the P. H. Glatfelter Company's discharge. Please see the response to Comment D-83/21 for a discussion of odor issues.

728 WOOD ST
T. FREDERICK FELDMANN 717 846 1771
[redacted] ST. - YORK, PENNSYLVANIA 17404 - Telephone [redacted]

MESSAGE	REPLY
TO DR SUEHLEN VAN OOTEGHEM ENERGY TECHNOLOGY CENTER 12/19/94 3610 COLLINS FERRY RD DATE MORGANTOWN WV 26507-0880	DATE
DEAR DR VAN OOTEGHEM - RE : COGEN - YORK COUNTY I SEE THESE MAJOR ISSUES: 1 - WILL THE ENVIRONMENT BE BETTER THAN IT IS NOW	W-TFF-12/19a
2 - WILL WE BE GETTING THE BEST AVAILABLE SYSTEM, NOT JUST SOMETHING NEW AND DIFFERENT.	W-TFF-12/19b
VERY TRULY T Frederick Feldmann	
SIGNED	SIGNED

FORM AVAILABLE FROM GRAYARC CO., INC. 882 THIRD AVE., B'KLYN., N. Y. 11232

THIS COPY FOR PERSON ADDRESSED

T. F. Feldmann
728 Wood St
York, PA. 17404-2628

SEASONS GREETINGS FROM CLARKSBURG P&DF 263 12-22-94 DCR#2

DR SUEHLEN VAN OOTEGHEM
ENERGY TECHNOLOGY CENTER
3610 COLLINS FERRY RD
MORGANTOWN WV 26507 0880

W-TFF-12/19a

Response: Please see the responses to Comments D-132/21 and D-265/2.

KEYWORDS:
General

W-TFF-12/19b

Response: The proposed project would meet many needs, as noted in the EIS, Section 1.3. These include the need to demonstrate this technology at utility scale, the need for electricity, and the need for steam by P. H. Glatfelter Company. Under the Clean Coal Technology Program, DOE can only consider funding of proposed projects. Therefore, other possible facilities have not been evaluated. Please review the response to Comment D-37/16 for more information on why certain alternatives have been dismissed from consideration.

KEYWORDS:
Alternative analysis
Alternative technologies
BACT

It is difficult to assess the best available system for a particular situation, since the criteria for analysis of what is best can vary. For instance, some technologies may generate less sulfur dioxide (SO_2) than other technologies, but may also emit higher levels of particles. In addition, one needs to assess technological risk as a component of this analysis, since this criterion could play an important role in determining reliability, maintainability, and variability of operation. The proposed project sponsor would need to obtain a Prevention of Significant Deterioration permit through PADER. As a component of this permit, the state requires that best available control technology (BACT) applicable for a particular technology (e.g., atmospheric fluidized bed combustors) be evaluated and incorporated into the design of the plant, unless there is a prohibitive cost issue or a technology-incompatibility reason why BACT cannot be used.

December 22, 1994

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, W. Va. 26507-0880

Dear Dr. Van Ooteghem,

Thank-you for providing the draft environmental impact statement (EIS) for the proposed "York Conty Energy Partners Cogeneration Facility." I am writing to voice my opposition to this project. My opposition is not based on flaws in the technology of the utility-scale circulating fluidized bed cogeneration facility proposed for North Codorus Township per se, as I do not pocess the knowledge to do this evaluation. Instead I write as a citizen residing on the south branch of Codorus Creek and have experienced how "safe" technology has negatively impacted our evironment, assurances to the contrary.

My major problem is with the premise that coal needs to be promoted "to reduce dependence on imported oil and to enhance the energy security of the United States." The environmental degradation of the United States is the real security risk. There are areas of the eastern forest (e.g., Maryland and West Virgina) where no oak or maple trees are regenerating, most likely because of acid rain. W-RW-12/22a

While the EIS claims the cogeneration facility will lessen the amount of sulfur dioxide (SO2) released to the atmosphere in this particular situation, the EIS is silent regarding the estimated amount ot SO2 that will be released in the U.S. should this demonstration technology be deemed feasible and duplicated elsewhere. It is silent regarding the environmental impact of coal mining and coal transportation to meet the demands at this site and future needs that would come with adoption of this technology. This, coupled with the statement that issues beyond the scope of the EIS are certain alternative technologies, causes one to question the adequacy of this EIS. W-RW-12/22b

Just recently (November 14, 1994) the nation's largest natural gas company, Enron Corporation, annouced the building of a plant to produce solar power at rates competitive with those of energy generated from oil, gas and coal. How can this not be considered in the EIS? Why are we being made guinea pigs for some "political agenda" to promote coal? W-RW-12/22c

There is nothing reflected in the EIS that documents a real need for the extra electricity this facility will generate. Energy ccnservation is not even considered. The EIS does not adequately explain: W-RW-12/22d W-RW-12/22e

o how far electricity will be transported from the site;

W-RW-12/22a

KEYWORDS:
Acid rain
Coal use

Response: One of the strategic goals of both DOE and the Clean Coal Technology Demonstration Program is to reduce dependence on imported oil and to enhance the energy security of the United States. However, one of the goals of the National Environmental Policy Act (NEPA) process is to ensure that environmental and human health impacts are considered in the Federal decision-making process. Thus, accomplishment of strategic and environmental goals should not be viewed as necessarily mutually exclusive. In terms of the specific proposed project, it is expected that sulfur dioxide (SO_2) emissions would decrease by approximately 2,400 tons/year when compared to current baseline. Thus, one would not expect that acid rain precursor emissions would increase due to the proposed project, and, consequently, eastern forests should not be adversely affected by the proposed project.

W-RW-12/22b

KEYWORDS:
Alternative technologies
Coal mining
Coal transportation
Demonstration effects

Response: The Programmatic Environmental Impact Statement issued for the Clean Coal Technology Demonstration Program (1989) addresses the effect of widespread commercialization of clean coal technologies in the United States.

Specific transportation impacts due to transportation of (additional) coal in the area of the proposed site location (i.e., North Codorus Township site) are deemed to be within the scope of analysis for this EIS, since these effects could be specifically related to the proposed action. Potential impacts from surface transportation are discussed in Section 4.1.8 of the EIS.

Please see the response to Comment D-37/16 for information related to the appropriateness of including alternative technologies for analysis in this EIS.

Please see the response to Comment D-139/24 for information related to the appropriateness of including mining (and similar) impact analyses in this EIS.

W-RW-12/22c

KEYWORDS:
Alternative technologies
Coal use

Response: DOE is conducting research in a wide variety of areas with respect to developing and improving methods of energy generation. These include energy renewables (such as solar and waste energy), fossil fuels (such as coal), and nuclear fuels. Solar power is one of many technologies that is being promoted by DOE. However, solar technology does not have the widespread applicability, reliability, and acceptability in the United States to be the single source of energy for our country. Given that coal is the most vast fossil fuel resource in the United States, it is understandable that the government would develop programs, such as the Clean Coal Technology Program, to capitalize on and utilize this resource.

Please see the response to Comment D-37/16 for more information on alternative technologies.

o where exactly the electricity is expected to be transported and for what purpose?

o what is the socioeconomic and environmental impact on these specific areas?

(continued)

Instead the EIS speaks in generalities (e.g., see pages 1-11).

On page E3-28 and elsewhere in the EIS, the issue of dioxin is discussed. Yet it makes no mention of a February 7, 1993 York Sunday News article, "State warns fishermen: Don't eat Codorus catch." The article is about the detection of dioxin in the West and East branches of Codorus Creek. It is my understanding that dioxin is a byproduct of the manufacture of paper. If the findings of this 1993 monitoring program were inaccurate the EIS should explain this to alleviate people's concerns. No mention of these findings are discussed on page 3-41 of the EIS.

W-RW-12/22f

Other EIS sections raise questions in my mind, but I will conclude with these comments on biodiversity. The sections relating to biodiversity are incomplete in that biodiversity must be considered at the genetic level, as well as the ecosystem level, not just at the species level as is done in the EIS. Whether this would make a difference I cannot say but the EIS as now written is inadequate.

W-RW-12/22g

Thanks for the opportunity to comment on this proposal. Please consider the above in the final draft and your final recommendations.

Sincerely,

Rodger Waldman

Rodger Waldman
RD 2, Box 325A
Seven Valleys, Pa. 17360
717-428-1320 (H)
410-965-7886 (W)

W-RW-12/22d

KEYWORDS:
Conservation
Need for power

Response: DOE has projected that nationally there will be a long-term need for additional electrical capacity. There are many alternatives that could be chosen to handle this need for power. Demand-side management (conservation) is one of many mechanisms being actively explored by other DOE programs to meet power demands; however, further funding of other DOE programs using Clean Coal Technology Program funds are necessarily excluded as an alternative due to the congressional obligation of these funds to be used for clean coal demonstrations. The Clean Coal Technology Programmatic Environmental Impact Statement further addresses this issue. Please also refer to the response to Comment D-83/5 which addresses issues related to the local need for power.

W-RW-12/22e

KEYWORDS:
Electricity
Transportation

Response: It is very hard to predict where the electricity would be transported from the proposed site and eventually used. It is impossible to predict accurately the ultimate end-use point of the electricity generated by the proposed project. Electric utility companies do not manage their electricity supply and demand in as precise (with respect to location) and long-term (with respect to duration) a manner as would be required to estimate the socioeconomic and environmental impacts of specific end-usage.

W-RW-12/22f

KEYWORDS:
Advisory
Codorus Creek
Dioxin

Response: The discussion of dioxin levels in aquatic species in Codorus Creek in Section 3.1.5.1 references directly the Pennsylvania Department of Environmental Resources (PADER) studies on which the York Sunday News article was based. The findings of that study are summarized in the text. Also, please note that additional studies, as part of the same continuous monitoring program by PADER, led to the July 28, 1994, repeal of the advisory against eating green sunfish from Codorus Creek. Please see responses to Comments D-82/1 and D-266/9.

W-RW-12/22g

KEYWORDS:
Biodiversity

Response: In accord with Council on Environmental Quality (CEQ) National Environmental Policy Act (NEPA) regulations (40 CFR Part 1502), a graded approach has been used to consider the complex question of biodiversity. Most biodiversity investigations, to DOE's knowledge, have been made on the ecosystem or "species" level, whereby the presence or absence of certain species and the degree of variation among species "mix" are important indicators of ecosystem stability. Genotypic investigations are rare, and typically conducted only when threatened or endangered species are involved. Consultations with Federal, state, and local agencies responsible for ensuring sound environmental resource management, as well as management of threatened and endangered species, have not indicated a need (or desire on the part of these agencies) for further, more in-depth analyses. These agencies have also not indicated a need for mitigation of potential impacts.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

P. O. Box 8465
Harrisburg, PA 17105-8465
December 22, 1994

(717)787-9637

Bureau of Water Quality Management

Dr. Suellen Van Ooteghem
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Re: DER File No. 08032

Dear Dr. Van Ooteghem:

We have received your November 17, 1994 letter and Draft Environmental Impact Statement for the Proposed York County Energy Partners Cogeneration Facility. It appears as though the project lies within the Codorus Creek drainage basin rather than West Branch Codorus Creek as indicated by the draft's text and figures. W-ERB-12/22a

The section of Codorus Creek in proximity to the proposed facility is designated Warm Water Fishes (WWF) and carries an additional parameter for "color" in Chapter 93 of the Rules and Regulations of the Pennsylvania Department of Environmental Resources. The WWF protected use includes the maintenance and propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat. The color criteria is for a maximum of 50 units on the platinum-cobalt scale with no other colors perceptible to the human eye. W-ERB-12/22b

The Draft Environmental Impact Statement points out that discharges of wastewater and stormwater are planned to Codorus Creek. We are concerned by the expected increases in dissolved solids in Codorus Creek caused by the proposed facility and by the projected concentration of chloride which is in exceedence of the EPA (1988a) chronic ambient water quality criteria. Other concerns involve the placement of a portion of the project within the 100-year floodplain and the placement of proposed pipelines through identified wetlands. It is prudent to avoid these situations where alternatives exist. Additionally, adequate erosion controls must be utilized to minimize sedimentation of Codorus Creek during construction. W-ERB-12/22c W-ERB-12/22d W-ERB-12/22c

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W-ERB-12/22a

KEYWORDS:
Drainage basin

Response: Maps and text have been clarified to indicate that the proposed site is in the Codorus Creek drainage basin.

W-ERB-12/22b

KEYWORDS:
Codorus Creek
Color
Criteria

Response: References to the regulatory water color criterion for this portion of Codorus Creek have been corrected in the FEIS (Section 4.1.4.2.6). Please also see the response to Comment D-271/25.

W-ERB-12/22c

KEYWORDS:
Codorus Creek
Chloride
Consumptive effects
Erosion
Exceedances

Response: Total dissolved solids (TDS) is an issue that is being addressed by P. H. Glatfelter Company and the Pennsylvania Department of Environmental Resources (PADER) through the National Pollutant Discharge Elimination System (NPDES) permitting process. The EIS (Section 4.1.4) reports that the proposed project would not increase the loading of TDS, but would increase P. H. Glatfelter Company's effluent concentrations due to evaporative water losses. As discussed in Section 4.1.4.2.7, when combined with the effects of the P. H. Glatfelter Company's Pulp Mill Modernization Project, the proposed facility would result in an expected net increase of TDS of 4 percent in the effluent discharged to Codorus Creek. This increase in effluent concentration would not be expected to have an adverse impact on the aquatic community of Codorus Creek.

Current in-stream concentrations of total dissolved solids below P. H. Glatfelter Company's discharge during low-flow years average 1,096 mg/L *(ERM, 1994a)*. P. H. Glatfelter Company's Pulp Mill Modernization Project will lower these concentrations to 908 mg/L, but the proposed York County Energy Partners, L.P. (YCEP) project would raise the average in-stream concentration at "low-flow" conditions to about 1,001 mg/L *(ERM, 1994a)*.

It was predicted that low-flow concentrations of chloride after start-up of the proposed YCEP project would be 246 mg/L downstream of P. H. Glatfelter Company's discharge. This concentration would nearly exceed the Federal secondary drinking water standard of 250 mg/L. It would slightly exceed EPA's chronic exposure limit for aquatic organisms of 230 mg/L. As discussed in Section 4.1.5.1 of the EIS, the criteria would be exceeded only during low-flow conditions. Furthermore, the projected low-flow concentration of chloride is below the chronic maximum acceptable toxicant concentration (MATC = 372.1 mg/L) for the most sensitive species tested and below the chronic MATC (4,343.1 mg/L) for the fathead minnow, a warm-water fish commonly used in toxicologic tests. It is unlikely that significant adverse impacts to the biodiversity of Codorus Creek would result from the projected chloride levels because the water quality criteria are intentionally conservative and because the exceedance is marginal and only occurs for the projected low-flow condition. In addition, hardness levels play an important role in determining the effects of chloride to aquatic organisms. For more information on this topic, please see the response to Comment W-LMY-1/10c1.

Thank you for the opportunity to comment on the Proposed York County Energy Partners Cogeneration Facility project.

Sincerely,

Edward R. Brezina

Edward R. Brezina
Chief
Division of Assessment and Standards

Erosion controls to be used during construction, as described in Section 4.1.4.3, would include a stormwater/sediment pond. In addition, the construction contractor would be expected to use earthen berms, straw bales, and other sediment traps to prevent soil erosion. An erosion and sediment control plan for the proposed site was approved by the York County Conservation District office on February 2, 1995. The plan has been forwarded to the Pennsylvania Department of Environmental Resources' (PADER) Water Management Program staff for review and approval. Approval of the plan is required before issuance of an NPDES stormwater permit, which is required for operation of the facility.

W-ERB-12/22d

KEYWORDS:
Floodplain
Pipelines
Wetlands

Response: The Baltimore District of the U.S. Army Corps of Engineers (ACOE) has determined that wetlands described in the DEIS were identified and documented correctly. On November 21, 1994, the preferred electric transmission line route was inspected by the ACOE River Basin Permits Section ecologist responsible for these determinations. ACOE found that: (1) the limits of Waters of the United States, including jurisdictional wetlands, are appropriately documented for both the facility site and the preferred electric transmission line route; (2) that the delineation was performed correctly and accurately; and, (3) the preferred electric transmission line route may pose minor adverse impacts to identified wetlands and Codorus Creek. It was recommended that minor impacts to wetlands be mitigated using lands of P. H. Glatfelter Company, York County Energy Partners L.P. (YCEP), or other private lands. ACOE indicated that once the preferred alignment is determined for all utility corridors, it would most likely authorize the minor disturbances to wetlands under Nationwide Permit Number 12 (Backfilling and Bedding For Utility Lines), and require a Letter of Permission (LOP), for aerial crossing Codorus Creek, a Section 10 waterway.

ACOE will endorse the use of flood control lands at Indian Rock Dam for the preferred electric transmission line route, provided all concerns identified by the Pennsylvania Game Commission, the current lessee, are satisfied. In their comments on the DEIS, ACOE has stated that "while portions of the proposed facilities are located within the 100-year floodplain, there is no significant impact on the floodplain." A mitigation plan for flood control lands impacted by the electrical interconnection corridor must be approved by both the Pennsylvania Game Commission and ACOE. The preferred electric transmission line route would be permitted through an easement granted by the ACOE.

Floodplains and wetlands were avoided to the greatest extent possible during siting evaluations for both the proposed Cogeneration Facility and attendant utilities. Some areas, such as Wetland B, shown on Figure 3.1-10 in the EIS, were unavoidable. Wetland B, the "edge" of both Kessler and the mill ponds, extends along the entire eastern border of the proposed cogeneration site. Both the steam supply pipeline from YCEP to P. H. Glatfelter Company, and the condensate return line back have to cross this wetland area. Disturbance to this wetland would be minimized by the proposed point of crossing, which is at the "breakwater" between the mill pond and Kessler Pond. The breakwater was determined to be the point of least impact, due to the preexisting spillway and dam structures already at that site. The two pipelines would traverse the breakwater area, and then cross Codorus Creek

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at approximately the same location where P. H. Glatfelter Company pipelines now cross. YCEP may be able to mount the two pipelines on P. H. Glatfelter Company's existing in-stream footing structures, thereby avoiding any disturbance to the creek itself at this location. Completion of detailed design would confirm whether this possibility is certain.

Other wetlands, identified as Wetlands 12, 13, and 14, would be unavoidably impacted by cooling tower service pipelines. Impacts would primarily consist of trenching and backfilling for underground placement of the pipelines, resulting in some temporary disturbance of vegetation, sedimentation, and exposed soils on approximately 0.3 acres (0.08 hectares) of wetland. It is anticipated that these areas would be restored to natural grade once the pipelines have been bedded, and very little, if any, additional disturbance would occur. The areas should recover and provide approximately the same quantity and quality of wetland habitat. The disturbance in these areas would be handled under the General Permit Program of the Pennsylvania Department of Environmental Resources (PADER) Water Management Program.

December 30, 1994

York County Energy Partners Draft EIS
Dr. Suellen A. Van Ooteghem
Environmental Project Manager
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26507-0880
Telephone: 285-5443

Dear Tort:

1. I am requesting for the information on how many square miles of air would be sea for this project on the daily basses, to make sure that you answer for air pollution is not dilution. W-DCP-12/30a

2. I would like see the proof of exactly how much each part (Example nuts bolts,screws and all the air purifying equipment), would cost to build this 380 million dollars tax exempt project. In order to make sure the tax payers are getting their moneys worth. United States Code Service, title 18 USCS 552 Freedom of Information Act, United States Code Service, title 18 USCS False Act. W-DCP-12/30b

Please notify me where and when this will become public information.

Respectfully Submitted,

David C. Palmer Pro se,
2640 North Sheridan Road
York, PA 17402-1325
(717) 755-7488

cc:
Ms. Carol M. Borgstrom
Director, Office of NEPA Oversight (EG-25)
U.S. Department of Energy
1000 Independence, S.W.
Washington. D.C. 20585
Telephone: (202) 586-4600 & (800) 472-2756
P # 030 314 339

W-DCP-12/30a

Response: Please see the response to Comment D-93/9.

KEYWORDS:
Air quality
Dilution

W-DCP-12/30b

Response: The required information in accounting reports that DOE requests from its industrial partners do not include the specificity that the commenter would need in order to perform this assessment. However, major component cost breakdowns (exclusive of any proprietary cost data) for the proposed facility can be provided to the public when the information becomes available. It is likely that the information would not be available until 1998.

KEYWORDS:
Project costs

OS-2 (3-89)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

Engineering District 8-0
2140 Herr Street
Harrisburg 17103-1699
January 3, 1995

IN REPLY REFER TO

Department of Energy's Draft
Environmental Impact Statement
York County Energy Partners
Cogeneration Project
York County, PA (DOE/EIS-0221)

Dr. Suellen Zan Ooteghen
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, West Virginia 26507-0880

Dear Dr. Ooteghen:

Thank you for sending a copy of the Draft Environmental Impact Statement for the proposed York County Energy Partners' Cogeneration project in York County, Pennsylvania. This has been reviewed by the PennDOT District 8 staff.

Air Products has submitted an application for the signalization of PA 16 and PA 116 as required in their traffic impact study for the cogeneration plant. Recommendations from the study have been included in their PennDOT highway occupancy permit application. They will receive the permit from PennDOT. PennDOT District 8 has no substantive comments on the Draft Environmental Impact Statement.

W-BGH-1/03

Thank you for the opportunity to review this document. If you have any questions, please contact Christie J. Perry, District Environmental Manager, at 717-787-5222.

Very truly yours,

Barry G. Hoffman, P.E.
For District Engineer

CJP:jlg

Recycled Paper

W-BGH-1/03 ***Response:*** Comment is noted.

KEYWORDS:
Transportation

CHERNOBYL SPRING GROVE, PA 1/4/95

THE FEDERAL GOVERNMENT HAS ASSURED US, THE COGENERATION PLANT WILL BE BUILT WITH 75 MILLION DOLLARS COMMITTED (YORK DISPATCH DECEMBER 20, 1994), PRIOR TO DECEMBER 14TH THRU 16TH PUBLIC HEARINGS AT THE YORK FAIRGROUNDS. UPON ENTERING THE MEETING ROOM - PLEASE REGISTER TO SPEAK, INTRODUCTION-RULES: THOSE SPEAKING WILL BE RECORDED, GIVE YOUR NAME AND GROUP YOU REPRESENT (PLEASE SPEAK CLEARLY). NONE OF THE PANEL ANSWERED ANY QUESTIONS AND WERE RECORDED FOR FUTURE EVALUATION.

THE FOLLOWING [V], [4-69], ETC. INDICATES PAGE NUMBERS IN THE YCEP COGENERATION FACLITY BOOK:- THE OPERATIONAL LIFE OF THIS PLANT WILL BE 25 YEARS [V] (24 HOURS A DAY 365 DAYS A YEAR). THE EXPOSURE ASSESSMENT OF 6 YEAR OLD CHILD PER EQUATION [4-69]. COGENERATION PLANT SAFE CALCULATION TABLE [4.1-24] EXPECTED EMISSIONS RATE TABLE [4.1-11] PAGE [4-37] - 22-EMISSIONS ARE LISTED IN TABLE AND RATE. [1.3.1] PAGE [1-7] :- THE PURPOSE OF THE PROPOSED FEDERAL ACTION IS TO DEMONSTRATE ATMOSPHERIC CFB TECHNOLOGY AT A LARGE ENOUGH SCALE TO EVALUATE ENVIRONMENTAL, COST, AND PLANT PERFORMANCE DATA. RAILROAD CARS ARE TO SUPPLY 2,500 TONS (COAL) PER DAY PLANT USAGE [2-9] (GLADFELTER CURRENTLY USES 1000 TONS PER DAY)

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QUESTIONS ASKED AT THE DECEMBER 15TH AND 16TH MEETINGS I ATTENDED WERE MY CONCERN AS WELL AND UNDER THE RULES, NO ANSWERS WILL BE AVAILABLE.

THE 22-EMISSIONS LISTED ARE ALL DANGEROUS AND EXPOSURE FOR 25 YEARS NO MATTER HOW LIMITED CAN BE DANGEROUS TO HEALTH, W-HES-1/04a

I WAS SURPRISED THE NUMBER OF PEOPLE SUPPORTING YCEP FOR EMPLOYMENT. TRAINING OF PERSONAL SHOULD BE THE PRIMARY CONCERN FOR PLANT SAFETY AND PUBLIC SAFETY (NO GUARANTEE OF NO THREE MILE ISLAND TYPE ACCIDENT - ONE EMISSION). W-HES-1/04b

SINCE AIR PRODUCTS AND CHEMICALS INC. WILL PROVIDE TRAINED PLANT PERSONAL, WHAT ARE YORK COUNTIANS CHANCES OF TRAINING AND EMPLOYMENT? HOW WELL YOU AND YOUR CHILDREN'S HEALTH BE IN 25 YEARS OF EXPOSURE? W-HES-1/04c W-HES-1/04a

I AM SCARED, TODD PLATES-THE ONLY ELECTED REPRESENTIVE AGAINST THIS PLANT, THE OTHER TWO-FOR IT. IS IT SAFE TO HAVE THIS PROJECT IN GOVERNMENT? YORK COUNTY ENERGY PARTNERS COGENERATION FACILITY IMPACT STATEMENT PROPOSAL BY DOE (BOOK), GIVEN OUT AT YORK FAIRGROUNDS - GET ONE!

~~CHECK INFORMATION LISTED ABOVE~~

COPIES:
YORK DISPATCH
TODD PLATTS
DOE

LL YORK DISTRICT UNITED METHODIST MEN

Harry E. Smith
2151 POPLARS ROAD
YORK PA. 17404
(717) 764-0935

W-HES-1/04a

KEYWORDS:
Cumulative effects
Children
Health effects

Response: The human health risk assessment conducted for the proposed project, which is summarized in Section 4.1.2.11 of the EIS, assessed the impacts to human health due to continuous exposure to emissions over the operational life of the proposed facility. Worst-case exposure assumptions were used in the health risk assessment even though the literature suggests that this approach, which is consistent with EPA-recommended methodology, tends to overstate actual risks to human health. As stated in Section 4.1.2.11, the proposed project would not be expected to have measurable adverse effects to human health.

W-HES-1/04b

KEYWORDS:
Safety
Training

Response: Please see the response to Comment D-298/8.

W-HES-1/04c

KEYWORDS:
Residents
Training

Response: As described in Section 4.1.12.2, the 70 full-time permanent employees that would compose the operations staff of the proposed facility would be hired from the local labor force to the extent possible. York County Energy Partners, L.P. (YCEP) would favor local residents, assuming qualified applicants are available, since it would cost more to relocate personnel.

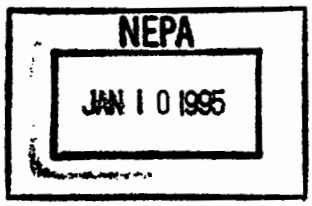
Training would be provided to new employees, as outlined in the response to Comment D-298/8.

United States Department of the Interior

NATIONAL PARK SERVICE
Mid-Atlantic Region
143 South Third Street
Philadelphia, PA 19106

IN REPLY REFER TO:

N3615 (MAR-MR)



DEC 22 1994

Suellen A. Van Ooteghem, Ph.D.
Environmental Project Manager
Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, West Virginia 26507-0880

Dear Ms. Van Ooteghem:

We received the copy of the Prevention of Significant Deterioration (PSD) application for the York County Energy Partners L.P. (YCEP) Cogeneration Project, a Clean Coal Technology Demonstration Project under consideration by the Department of Energy (DOE). As part of the DOE's preparation of an Environmental Impact Statement, you requested our comments regarding the application. The YCEP project would be located approximately 150 km northwest of Shenandoah National Park, and 29 km northeast of Gettysburg National Military Park and Eisenhower National Historic Site. Shenandoah National Park is a Class I area administered by the National Park Service. Gettysburg National Military Park and Eisenhower National Historic Site are Class II areas, also administered by the National Park Service. We have reviewed the PSD application and have the following comments.

Additional Impact Analysis

Section 6.9 of the application contains the required additional impact analysis, to assess impacts to visibility, acid deposition, soils, and vegetation in the vicinity of the source. We are pleased that YCEP submitted a modeling analysis for Gettysburg National Military Park. Since expected reductions in nitrogen oxide and sulfur oxide emissions from P.H. Glatfelter Company, an adjacent pulp mill, will be made federally enforceable concurrent with this permit, the YCEP project should result in a net air quality benefit for the two parks in Gettysburg, Pennsylvania.

Class I Impact Analyses

Section 6.10 of the application states that because the project is more than 100 km from any Class I area, no air quality modeling analysis is required. Because emissions will decrease substantially (1910 tons per year of sulfur dioxide, 998 tons per year of nitrogen oxides and 110 tons per year of particulate matter), a net air quality benefit should also occur at Shenandoah National Park. However, for your future information, we would like to clarify the requirements for Federal Land Manager (FLM) notification and Class I impact analyses.

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Generally, the permitting authority should notify the FLM of all major sources proposing to locate within 100 km of a Class I area, however, the permitting authority should also notify the FLM of sources proposing to locate at distances greater than 100 km in certain instances. In this instance, the National Park Service has certified that adverse impacts currently exist at Shenandoah National Park. In addition, the EPA guidelines state that very large sources may be expected to affect air quality related values at distances greater than 100 km, and the FLM should be notified of such sources on a case-by-case basis. Regarding the distance limitation for using dispersion models, although the Environmental Protection Agency (EPA) generally limits the application of models to a distance of 50 km in non-Class I situations, any reasonably expected impacts for Class I areas must be considered irrespective of the 50 km model limitation. If the EPA intended the NPS to be notified of certain projects located more than 100 km from Class I areas, as indicated above, it follows that the potential impacts of these sources are to be assessed (i.e., modeled). More information and guidance regarding this policy can be found in the EPA's *New Source Review Manual* (October 1990). In addition, our *Permit Application Guidance for New Air Pollution Sources* includes information regarding notification and impact analyses.

Best Available Control Technology (BACT) Analysis

We have reviewed the BACT analysis and agree the proposed technologies represent BACT, except that previous BACT determinations in Pennsylvania required coal cleaning to further reduce sulfur dioxide emissions. YCEP and DOE should still be able to demonstrate the effectiveness of this clean coal technology, even if coal cleaning is required. Therefore, we believe BACT for this project should be 95% control of sulfur dioxide. In addition, the application indicates no fluidized bed units of the proposed size exist, therefore data are not available to establish what actual levels of emissions may be achievable. It is possible that actual achievable emissions may be lower than those proposed. We agree that the Lowest Achievable Emission Rate for nitrogen oxide emissions should be determined during compliance testing. Likewise, we believe the BACT emission levels for the other pollutants should be set at lower levels than those proposed, if testing indicates lower levels can be achieved on a continuous basis.

W-BJG-12/22a

Emission Reductions

The application indicates nitrogen oxide emission offsets will be obtained. We have received your September 27, 1994, letter, which discusses the reductions that will be made at P. H. Glatfelter Company. The letter indicates that these reductions will be made federally enforceable, and that YCEP's permit will reference the reductions at P.H. Glatfelter. It is extremely important that the proposed reductions in both nitrogen oxide and sulfur dioxide emissions be made federally enforceable and permanent. Provided the reductions are permanent, we have no concerns regarding air quality impacts to Shenandoah National Park, Eisenhower National Historic Site or to Gettysburg National Military Park. Should the reductions become unenforceable for whatever reason in the future, we would request to review the associated impacts.

W-BJG-12/22b

W-BJG-12/22a

KEYWORDS:
BACT
Emission reduction
LAER
Oxides of nitrogen
Sulfur dioxide

Response: The Best Available Control Technology (BACT) for the proposed project and the subsequent emission levels established will be determined through the Pennsylvania Department of Environmental Resources (PADER) Prevention of Significant Deterioration (PSD) review process. The current PSD permit application under review by the PADER has a sulfur removal effectiveness of 92 percent. As with most facilities, actual emissions would be below permitted levels in order to accommodate for variations in boiler and cleanup technology performance and short-term upset conditions. It is estimated that emissions for sulfur dioxide (SO_2), oxides of nitrogen (NO_x), and particulate matter less than 10 microns in diameter (PM_{10}) would be approximately 90 percent of their respective maximum emission levels in the PSD permit application. This 10-percent margin is maintained by overcontrolling the circulating fluidized bed (CFB) unit to allow for short-term upsets without violating the PSD permit limits. Emissions for uncontrolled emissions of volatile organic compounds (VOCs) and carbon monoxide (CO) would be approximately 80 percent of the maximum levels in the PSD permit application. The boiler manufacturers typically include this margin to allow for upset in the boiler operation without violating the PSD permit limits. This 80-percent level is based on the operating experience at two other bituminous coal CFB boilers operated by Air Products.

Please see also the response to Comment W-WRS-1/30c.

W-BJG-12/22b

KEYWORDS:
Enforcement
Oxides of nitrogen
Parks
Permits
Sulfur dioxide

Response: The proposed project is located within the Northeast Ozone Transport Region (NOTR), which has been designated under the 1990 Clean Air Act Amendments. Any new "major" source of air emissions sited in the NOTR must obtain emission reduction credits (ERCs) from existing emission sources for each pollutant at a ratio of 1.15 to 1. A new major source in this case is defined as having the potential to emit more than 100 tons/yr of oxides of nitrogen (NO_x) and/or 50 tons/yr of volatile organic compounds (VOCs), which are both ozone (O_3) precursors. These ERCs must be qualified and approved by the Pennsylvania Department of Environmental Resources (PADER) prior to their issuance of an air quality permit to the new source [in this case, the York County Energy Partners, L.P. (YCEP) facility]. The existing source (in this case, the P. H. Glatfelter Company) for these ERCs must implement the approved emission reductions prior to start-up of the new source (YCEP). The P. H. Glatfelter Company completed installation of their emission reduction equipment in 1994.

As required under the Clean Air Act Amendments, these ERCs must be permanent and federally enforceable. In Pennsylvania, the 1990 (Federal) Clean Air Act (as amended) is regulated and enforced by PADER, under coordination and review with the EPA. Please see also the response to Comment D-297/4.

Since the proposed YCEP facility is considered to be a major source for oxides of nitrogen (NO_x) emissions, it must obtain oxides of nitrogen (NO_x) ERCs as part of

Thank you for the opportunity to provide comments regarding this project. Please contact Cathy Rhodes of our Air Quality Division in Denver at (303) 969-2075 if you have any questions regarding our comments.

Sincerely,

/s/ Warren D Beach

for B. J. Griffin (Ms.)
Regional Director
Mid-Atlantic Region

cc:
Lief Erikson
Pennsylvania Department of Environmental Resources
Southcentral Harrisburg Region
Air Quality Division
1 Ararat Blvd.
Harrisburg, Pennsylvania 17110

John Garland
Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, West Virginia 26507-0880

the new source air quality permit process. The P. H. Glatfelter Company's Power Boiler No. 4 is being used by the proposed YCEP facility as one source of oxides of nitrogen (NO_x) ERCs. Therefore, a permit modification for Power Boiler No. 4 is required before PADER would authorize YCEP to begin operation of the proposed Cogeneration Facility. The P. H. Glatfelter Company is currently preparing a permit modification application to reduce Power Boiler No. 4's annual operation to a maximum of 720 hours, in tandem with the YCEP Cogeneration Facility. The application would allow the P. H. Glatfelter Company the flexibility to operate Power Boiler No. 4 above the 720 hours per year limit in the event that one of their other power boilers goes out of service, or in the event that the YCEP boiler is shut down for maintenance or is temporarily out of service for some other reason.

YCEP submitted their Prevention of Significant Deterioration (PSD) "Plan Approval Authority to Construct" permit application to PADER in January of 1994, and it is currently under review. The regulatory requirements state that both the YCEP permit application and the Power Boiler No. 4 permit modification must be approved prior to start-up of the proposed YCEP facility. Therefore, these permit conditions would assure that the oxides of nitrogen (NO_x) ERCs would be permanent and federally enforceable during the lifetime operation of the YCEP Cogeneration Facility. Additionally, the expected sulfur dioxide (SO_2) and particle emissions from the P. H. Glatfelter Company's Power Boiler No. 4 would be reduced by an estimated 3,252 and 121 tons/yr respectively, through the permit-limited operations of Power Boiler No. 4 (see Table 4.1-2a in FEIS).

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA FISH & BOAT COMMISSION
Division of Environmental Services
450 Robinson Lane
Bellefonte, PA 16823-9616
(814) 359-5147

January 10, 1995

Dr. Suellen Van Ooteghem
U.S. Department of Energy
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Re: York County Energy Partners Cogeneration Project
Comments - Draft EIS

Dear Dr. Van Ooteghem:

The Pennsylvania Fish and Boat Commission has reviewed the Draft Environmental Impact Statement (DEIS) for the proposed York County Energy Partners Cogeneration Facility. This project would be located adjacent to the P. H. Glatfelter Company Roundwood Facility in North Codorus Township. Cooling water system make-up requirements for the project would be provided by the P.H. Glatfelter facility wastewater treatment plant discharge. These withdrawals would average 4.1 million gallons per day (mgd) with a peak use of 5.4 mgd. Consumptive use would equal 2.8 mgd. Thus the total discharge volume from the P. H. Glatfelter facility would decline from 12.5 mgd to 9.7 mgd.

On December 21, 1994 we provided comments to the Susquehanna River Basin Commission (SRBC) regarding a consumptive use application for the proposed cogeneration facility. As most of our concerns regarding this project are related to the issue of consumptive water loss, we are including the SRBC comment letter as an attachment to this letter and request that it also be considered as comments to the DEIS. The following items are provided as additional comments on the DEIS:

1. Page 3-22 - It is stated that "when flows exceed 3.7 cfs (2.4 mgd), water is pumped by P. H. Glatfelter Company from the diversion dam to Lake Marburg." How is this possible when the minimum flowby at the diversion dam per the SRBC consumptive use permit is 4.9 mgd? Please explain. W-LMY-1/10a

2. Page 3-23; Paragraph 2 - It is stated that low flows have averaged 23.0 (14.9 mgd) for the USGS Spring Grove Station since 1970. Do these values represent stream flow at Spring Grove before or after the P. H. Glatfelter wastewater W-LMY-1/10b

W-LMY-1/10a

KEYWORDS:
Lake Marburg
SRBC
Water use

Response: The minimum flowby at the diversion dam for Lake Marburg is not subject to Susquehanna River Basin Commission (SRBC) approval. The minimum flowby of 3.7 cfs (2.4 mgd) is part of an agreement between the Pennsylvania Department of Environmental Resources (PADER) and the P. H. Glatfelter Company. However, as discussed in Section 3.1.4.1, the minimum water flow over the mill dam is 7.62 cfs (4.93 mgd). As discussed in Section 4.1.4.2.7, this SRBC-required flow would not be jeopardized by the proposed facility.

W-LMY-1/10b

KEYWORDS:
Gage data
Water flow

Response: Section 3.1.4.1 of the FEIS has been modified to clarify the procedures used by the U.S. Geological Survey (USGS) to measure the flow of Codorus Creek at Spring Grove. Because the intake for the P. H. Glatfelter Company is above the USGS gage and the outfall is below it, the USGS adds the average intake of the P. H. Glatfelter Company to the reading of their gage in Spring Grove to determine the flow at Spring Grove.

volume is added, since USGS typically adds these flows in their statistics on stream flow at Spring Grove? (continued)

3. We are concerned with the finding that EPA and DER chronic fish health criteria for chloride and copper are projected to be exceeded downstream of the discharge due in part to the effects of the consumptive loss during low flow conditions. EPA acute fish health copper levels will be approached (16.29 ug/l compared to EPA criterion of 18 ug/l - See Table 15 of June 23, 1994 Codorus Creek Water Resource Study prepared by ERM). In addition, lead concentrations were found to exceed DER water quality standards downstream of the P. H. Glatfelter discharge during a 1990 SRBC study (Table 3.1-9, Page 3-29). Since the SRBC study was not conducted at Q_{7-10} conditions, it would seem that greater exceedances in the lead concentration could result as a result of consumptive losses. (This finding conflicts with the information reported in Table 15 of the June 23, 1994 Codorus Creek Water Resource Study prepared by ERM which shows that chronic fish health concentrations of lead will not be exceeded.) Please explain the reason for the discrepancies in the various reports regarding lead. Also, we request that both the USEPA and Pennsylvania DER be consulted for an opinion on how these violations of state and federal water quality criteria will be addressed. W-LMY-1/10c1 W-LMY-1/10c2 W-LMY-1/10c3

4. Pages 3-26, 3-27, 3-29 and Table 3.1-9 - Related to comment 3 above, the 1990 SRBC data on which estimates of lead and copper concentrations were based represent only a single monitoring event and were not adequate to allow determination of the frequency and duration of the various water quality criteria exceedances. Was this lack of data remedied in any way in the preparation of the EIS? It would seem that additional preproject water quality monitoring may be necessary to address this issue. W-LMY-1/10d

5. Page 3-41; last paragraph - It is stated that in July 1994, the Pennsylvania DER and PFBC lifted a consumption advisory for green sunfish in Codorus Creek. The Pennsylvania Department of Health is also involved in the lifting of consumption advisories.

6. Page 4-87; Section 4.1.4.2.8, Paragraph 1 - It is stated that Marburg Lake drawdowns as low as 188.6 m (619 ft) have been demonstrated to have little effect on recreation in Codorus State Park. We would comment that though the data is not definitive, we feel there may be a connection between drawdowns in Lake Marburg and poor yellow perch spawning success and periodically low year class strength. As such, this could represent a potential impact to recreation in terms of angling. W-LMY-1/10e

W-LMY-1/10c1

KEYWORDS:
Chloride
Consumptive effects
Copper
Criteria

Response: A discussion of the expected increase in concentrations of copper (Cu), lead (Pb), and chloride has been added to Section 4.1.5.1. See also the Table of Exceedances in Chapter 9 of the FEIS for more information.

The criteria reported by Environmental Resources Management, Inc. (ERM) (*1994a*) are based on a standard hardness of 100 mg/L which is too low for the existing hardness conditions, thereby giving the appearance of an exceedance. When the water hardness is measured, the criteria for lead (Pb) and copper (Cu) should be calculated from the measured hardness. For example, using the Susquehanna River Basin Commission's (SRBC's) (*1991*) data, copper's (Cu) chronic and acute exposure limits for aquatic organisms, properly adjusted for the measured water hardness [224 mg/L at a flow of 45.3 mgd (70.1 cfs)], are 23.5 μg/L and 37.9 μg/L, respectively. These limits are higher than the expected copper (Cu) concentration of 12.0 μg/L at a flow of 65.8 cfs [adjusting for the expected consumption by York County Energy Partners, L.P. (YCEP)]. Likewise, if one volumetrically adjusts the measured water hardness to a flow of 26 mgd (40.7 cfs) (ERM's estimate of the "low-flow" including YCEP's expected water consumption), copper's (Cu) chronic and acute exposure limits for aquatic organisms are 37.5 μg/L and 63.3 μg/L, respectively. ERM's estimate of the copper (Cu) concentration (16.29 μg/L) at this flow rate are below these limits. With these examples, it can be seen that an exceedance is unlikely, provided the SRBC (*1991*) data do not represent atypically low concentrations in Codorus Creek. Environ (*1994a*) provides a current assessment of the chloride exceedance. This analysis is summarized in the FEIS.

W-LMY-1/10c2

KEYWORDS:
Consumptive effects
Criteria
Lead

Response: The perceived differences in the lead (Pb) concentrations discussed in the 1994 Environmental Resources Management (ERM) study and in the 1991 Susquehanna River Basin Commission (SRBC) study are due, in part, to differences in the locations under consideration. The SRBC study evaluated water quality at several locations along Codorus Creek, including RM (river mile) 5.03 and RM 6.60, where lead (Pb) concentrations exceeded applicable water quality criteria for chronic exposure of aquatic organisms. These two exceedances occurred 28 km (18 mi) or more downstream from P. H. Glatfelter Company's discharge with several major dischargers located in between.

ERM used the SRBC data to evaluate lead (Pb) concentrations at two locations, RM 13.27 and RM 21.5, located near P. H. Glatfelter Company's discharge. The SRBC study found no exceedances immediately downstream from P. H. Glatfelter Company's discharge where the proposed York County Energy Partners, L.P. (YCEP) consumptive water use could have the greatest effect. Lead (Pb) concentrations were low enough immediately below P. H. Glatfelter Company's outfall for DOE to conclude that no lead (Pb) exceedances would occur as a result of YCEP's action, assuming that the SRBC data is representative of normal conditions.

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P. H. Glatfelter Company is one of several major water users and dischargers that affect water quality in Codorus Creek. The SRBC data suggests that far downstream, other dischargers may cause frequent exceedances. YCEP's contribution to those exceedances should be negligible because the 2.8 mgd (4.3 cfs) water loss is such a small fraction (< 3.7 percent) of the total water flow in those sections of the Creek.

Please note that the SRBC data represents a single sampling event and are insufficient for a determination of the frequency, duration, or degree of exceedances.

W-LMY-1/10c3

KEYWORDS:
General

Response: These issues could be addressed during meetings between the Pennsylvania Department of Environmental Resources (PADER) and P. H. Glatfelter Company as part of the National Pollutant Discharge Elimination System (NPDES) permit process. Please see the response to Comment D-82/1.

W-LMY-1/10d

KEYWORDS:
Copper
Criteria
Lead
Water data

Response: The apparent lack of data was remedied. A biodiversity study *(Environ, 1994a)* was conducted to evaluate the effect of P. H. Glatfelter Company's discharges on Codorus Creek. This study reviewed several biological studies, and it specifically addressed the toxicological characteristics of P. H. Glatfelter Company's wastewater and receiving waters. Environ referenced and attached a toxicologic study *(EA, Inc. 1989)*. The toxicologic study revealed, based on bioassays and two ambient toxicity assessments, that undiluted and diluted P. H. Glatfelter Company effluent showed neither acute nor chronic toxicity. Based on this finding, EA, Inc. predicted "minimal to nonexistent" in-stream toxicity resulting from discharge of the wastewater. In 1986, the Pennsylvania Department of Environmental Resources (PADER) (*1987*) conducted a toxicologic study that found toxic effects of the whole effluent and diluted effluent generated at that time, although the specific toxic constituents were not identified.

PADER's 1986 study included measurements of lead (Pb) and copper (Cu) concentrations in Codorus Creek. The two nearest sample sites downstream from P. H. Glatfelter Company's discharge had concentrations below the limits for these two metals.

The apparent exceedance reported by Environmental Resources Management (ERM) (*1994a*) for copper (Cu) and the near exceedance reported for lead (Pb) result from ERM's use of a standard water hardness of 100 mg/L for criteria determination. Water quality criteria calculated with the measured water hardness are higher so that no exceedance occurs (please see the response to Comment W-LMY-1/10c1 for the correct criteria). Volumetric adjustments to water hardness (yielding 683 μg/L) and to lead (Pb) and copper (Cu) concentrations (yielding 12.2 and 34 μg/L, respectively) to match ERM's estimation of minimum flow conditions (15 mgd or 23 cfs) suggest that no exceedance is likely (chronic exposure criteria = 36.7 and 61 μg/L, respectively), unless the Susquehanna River Basin Commission (SRBC) (*1991a*) data represent substantially below-normal concentrations of these metals in Codorus Creek.

7. Page 4-94; Section 4.1.5.1; Paragraph 1 - It is stated that the P. H. Glatfelter Company discharge is not currently adversely impacting the aquatic community structure. However, we would note that the most recent (1992) fisheries data compiled by Dr. Robert Denoncourt (See Table 1 of November 1992 Report, Appendix D of SRBC consumptive use permit application) showed depressed fauna downstream of the P. H. Glatfelter discharge with IBI values in the "poor" to "fair' range. W-LMY-1/10f

8. Page 6-15; Section 6.4.4 - We disagree with the statement that since the water used for the proposed project would be drawn from wastewater from the P. H. Glatfelter discharge it would not constitute an additional withdrawal from Codorus Creek. Since the P. H. Glatfelter water is withdrawn from Codorus Creek and then returned, any withdrawal of water from the return flow constitutes an additional withdrawal from Codorus Creek with respect to the discharge point. W-LMY-1/10g

9. Appendix E - We would note that our September 20, 1993 letter regarding the Notice of Intent to Prepare an EIS was not included in this appendix. We are attaching another copy of this letter for your reference. W-LMY-1/10h

Thank you for the opportunity to comment on the DEIS. Please feel free to contact me if you have any questions concerning the above comments.

Sincerely,

Leroy M. Young, Fisheries Biologist
Division of Environmental Services

LMY:dms

cc: Arway, M. Hartle, Snyder, Kaufmann, Creyer - PFBC
Kostmayer - EPA, Region III
Oberdick - DER
Kulp - USFWS
J. Klunk

Attachments

Given this information, DOE decided not to collect additional measurements of lead (Pb) and copper (Cu) concentrations as part of developing the EIS. However, DOE will consider incorporating the monitoring of P. H. Glatfelter Company effluent at its National Pollutant Discharge Elimination System (NPDES) discharge point and upstream/downstream of the Codorus Creek at the discharge point in the development of its Environmental Monitoring Plan for the proposed project. If selected as a monitoring action in the Record of Decision, DOE would monitor for chemical species of interest [e.g., phenol, chloroform, lead (Pb), copper Cu)].

W-LMY-1/10e

Response: The comment is noted and has been incorporated into Section 4.1.12.3 of the FEIS.

KEYWORDS:
Drawdown
Lake Marburg
Perch

W-LMY-1/10f

Response: It is noted that some stations in the Denoncourt 1992 study had low index of biological integrity (IBI) values. However, the conclusion that P. H. Glatfelter Company is not adversely impacting the aquatic community structure is based on a review of several studies, as compiled in the Biodiversity Study for Codorus Creek (*Environ 1994a*) and summarized in the EIS in Section 4.1.5. Also, one should note Denoncourt's own conclusion in his 1992 report: "A diverse community of fishes was found at most stations. Differences in particular species or numbers can be expected between stations, seasons, or years. However, at stations above and below P. H. Glatfelter Company-treated effluent discharge, there were fishes representative of trophic levels to be found in a balanced aquatic ecosystem." In addition, the IBI value of the station just below the P. H. Glatfelter Company (42) is higher than the worst values downstream [W. Br. at Sunnyside (32) and W. Br. at Graybill (34)], indicating that other sources of pollution are degrading water quality downstream of the P. H. Glatfelter Company.

KEYWORDS:
Biodiversity

W-LMY-1/10g

Response: The comment is noted. As described in Sections 4.1.4.2.7 and 6.4.4, the proposed facility would evaporate an average of 3.9 cfs (2.5 mgd), 4.3 cfs (2.8 mgd) maximum of water that ultimately would have been returned to Codorus Creek without the proposed facility. However, the term "additional withdrawal" is intended to alert the reader to the fact that the cooling tower make-up is not physically withdrawn from Codorus Creek via an additional intake.

KEYWORDS:
Water use
Withdrawals

W-LMY-1/10h

Response: The September 20, 1993, letter from the Pennsylvania Fish and Boat Commission sent to DOE is now included in Appendix E of the FEIS.

KEYWORDS:
Omissions

COMMONWEALTH OF PENNSYLVANIA
December 21, 1994

SUBJECT: York County Energy Partners, L.P.
Consumptive Use Application
Codorus Creek

TO: Paul Swartz, Executive Director
Susquehanna River Basin Commission

FROM: Leroy M. Young, Fisheries Biologist
Division of Environmental Services
Pennsylvania Fish and Boat Commission

The Pennsylvania Fish and Boat Commission has reviewed the subject permit application for the consumptive use of up to 2.8 million gallons per day (mgd) of the treated wastewater from the P. H. Glatfelter facility by the York County Energy Partners (YCEP) proposed cogeneration plant. We have the following comments regarding this application.

1. The consumptive water losses related to the YCEP proposal have the potential to improve water quality downstream of the Glatfelter facility by removing wastewater load from the stream. While these improvements are welcome, it would seem that the best approach to protecting water quality in Codorus Creek would be to properly treat the discharge. Information such as that provided in the most recent (1992) fisheries data compiled by Dr. Denoncourt show depressed fauna downstream of the Glatfelter discharge with IBI values in the "poor" to "fair" range (See Table 1 of November 1992 Report, Appendix D). We note that the proposed wastewater effluent flow of 9.7 mgd exceeds the SRBC required stream flow upstream of the discharge by a factor of 2. Without the YCEP withdrawal, wastewater flow exceeds permitted stream flow by a factor of 2.5. Improvements of the water quality and protection of the aquatic life should be thoroughly reevaluated through the NPDES permitting process. We are currently discussing this issued with the Department of Environmental Resources (DER). Regarding the SRBC permit, will instream water quality monitoring be required to verify that the predicted improvements in water quality will indeed occur? W-LMY-12/21a

2. Changes in physical habitat related to the proposed consumptive use would be limited to the area downstream of the Glatfelter discharge. The additional reductions in flow are relatively small and the augmented flow from Lake Marburg appear adequate to protect habitat in this reach. We have greater concern, however, with the 1.8 mile section of Codorus Creek between the taking point and the discharge. Although impacts in this region are unrelated to the current permit, we would like to request the following information to improve our understanding of the impacts of flow reductions on this section of the stream: W-LMY-12/21b

Note: Although Comments W-LMY-12/12a through W-LMY-12/21d are in response to a review by the Pennsylvania Fish and Boat Commission of a consumptive use application submitted by YCEP to the Susquehanna River Basin Commission, the Pennsylvania Fish and Boat Commission requested that this comment letter be treated as additional comments to the DEIS.

W-LMY-12/21a

KEYWORDS:
Attenuation
Biodiversity
Consumptive effects
SRBC
Water quality

Response: Please see the response to Comment W-LMY-1/10f for a discussion of the index of biological integrity (IBI) values presented by Denoncourt. The commenter is correct in discussing aspects of P. H. Glatfelter Company's National Pollutant Discharge Elimination System (NPDES) permit with the Pennsylvania Department of Environmental Resources (PADER), the permitting agency, as DOE does not participate in the permitting process. The terms of the York County Energy Partners, L.P. (YCEP's) Susquehanna River Basin Commission (SRBC) Consumptive Use Permit do not require in-stream water quality monitoring.

The proposed project, under worst case conditions (lowest possible flow), would increase most of the chemical constituents in Codorus Creek by approximately 20 percent due to evaporative losses (e.g., sulfates in Codorus Creek immediately below the P. H. Glatfelter Company's outfall would increase by 20 percent). This occurrence would be a rare event. Under normal flow conditions, the evaporative impact translates to an increase of 4.9 percent. These evaporative losses in flow (and their effect of in-stream concentrations) are attenuated downstream. Given the rather small amount of constituent increase in the stream (at both low and normal flows) and the short duration of these increases along the length of Codorus Creek due to attenuation, no additional wastewater treatment is planned at this time.

W-LMY-12/21b

KEYWORDS:
Consumptive effects
Flow duration

Response: These requests are not within the scope of this EIS. The proposed facility would have no impact on any section of Codorus Creek above P. H. Glatfelter Company's outfall. Furthermore, because York County Energy Partners, L.P. (YCEP) consumptive use comes from P. H. Glatfelter Company's secondary effluent, the proposed facility would not cause P. H. Glatfelter Company to increase withdrawals from Codorus Creek. DOE suggests that these requests be submitted to the Pennsylvania Department of Environmental Resources (PADER) as part of the National Pollutant Discharge Elimination System (NPDES) permitting process. Please see also the response to Comment W-LMY-12/21a.

a. A flow duration analysis of Codorus Creek upstream of the taking point prior to the construction of Lake Marburg
b. A flow duration analysis of Codorus Creek upstream of the taking point subsequent to the construction of Lake Marburg
c. A flow duration analysis of Codorus Creek downstream of the taking point subsequent to the construction of Lake Marburg. This analysis should not include the discharge flows from Glatfelter, which are ow included in the USGS records for the Spring Grove gage.

(continued)

We request that calculations of average daily flow be provided for each of the above analyses.

3. Page 4 of the application states that the currently permitted consumptive use for the Glatfelter facility is 0.9 mgd; Page 5 states "The proposed net consumptive use will be 0.67 mgd after completion of the Pulp Mill Modernization Project in August 1994; and Table 7 of Appendix C lists current consumptive use as 2.5 mgd. Which is correct? W-LMY-12/21c

4. Although loading of a number of contaminants will decrease as a result of the YCEP proposal, we note that copper concentrations will increase to levels which are above Chronic Fish Health criteria (Table 15 of Appendix C). Will these impacts be mitigated by improved treatment of wastewater? W-LMY-12/21d

Thank you for the opportunity to review this application. We plan to also provide comments to the Department of Energy (DOE) regarding this project proposal. There is a considerable amount of additional information we have been provided by DOE which we are in the process of reviewing. Additional concerns may come to light as a result of that review. We will be sure to inform you of any such concerns at the time this review is completed.

LMY:dms

cc: Arway, Snyder, Kaufmann, Creyer - PFBC
Schott - DER
Wachter - DOE
John Klunk

W-LMY-12/21c

KEYWORDS:
Water use

Response: The last value is correct. On January 12, 1995, the application (No. 19950104) for the consumptive water use of up to 4.3 cfs (2.8 mgd) (3.9 cfs or 2.5 mgd average) by the proposed York County Energy Partners, L.P. (YCEP) Cogeneration Facility was approved by the Susquehanna River Basin Commission, subject to the conditions specified. The 0.9 mgd refers to an increase in consumption by P. H. Glatfelter Company following the start-up of a new power boiler in the late 1980s. The 0.67 mgd refers to another increase in consumption by P. H. Glatfelter Company following the August, 1994, start-up of the Pulp Mill Modernization Project.

W-LMY-12/21d

KEYWORDS:
Copper
Criteria
Water quality

Response: Available data indicate that exceedances of water quality criteria for copper are unlikely; therefore, no plans have been made to further treat P. H. Glatfelter Company's wastewater. Briefly, copper (Cu) toxicity to aquatic life is mitigated by the hardness of the P. H. Glatfelter Company effluent and the presence of a copper (Cu)-tolerant community. Please see also the responses to Comments W-LMY-1/10c1 and W-LMY-1/10d for further explanation. A discussion of the effects of these slight exceedances of the chronic fish health criteria is included in Section 4.1.5.1 of the FEIS. In addition, please see Table 9-4 of the FEIS which discusses the issues of exceedances in Codorus Creek for water quality parameters.

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA FISH & BOAT COMMISSION
Division of Environmental Services
450 Robinson Lane
Bellefonte, PA 16823-9616
(814) 359-5147

September 20, 1993

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Morgantown, WV 26507-0880

Re: York County Cogeneration Facility
Notice of Intent to Prepare EIS

Dear Dr. Van Ooteghem:

The Pennsylvania Fish and Boat Commission has reviewed the "Notice of Intent to Prepare an Environmental Impact Statement and Conduct a Public Scoping Meeting for the Proposed York County, Pennsylvania, Cogeneration Facility" which was published in the July 29, 1993 Federal Register. The proposed 250 MW facility would be located on a 36 acre site in North Codorus Township along State Route 116. The site is situated approximately 40 miles southwest of York and adjacent to the P. H. Glatfelter Company paper mill. We have the following recommendations regarding issues which should be addressed in preparation of the Environmental Impact Statement:

1) Wastewater from the P. H. Glatfelter Company has historically degraded water quality within Codorus Creek. Furthermore, according to a July 1984 Pennsylvania Department of Environmental Resources report "... the main stem of Codorus Creek from York to the mouth is impacted by a large number of industrial waste and treated sewage discharges which have a total design flow of 105 cubic feet per second (cfs) which is 2.84 times the stream's critical low flow of 37 cfs." We understand that the proposed project will consume approximately 2.4 million gallons of water per day. How will this loss of stream flow affect downstream water quality in light of the above concerns?

2) Reductions in stream flow could also impact the physical amount of fish and other aquatic life habitat of the stream. The effect of significant changes in stream flow should be evaluated using such methodologies as the Instream Flow Incremental Methodology (IFIM) which is the state-of-the-art instream flow study methodology.

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3) As required by Susquehanna River Basin Commission regulations, any consumptive water losses would have to be mitigated. What would be the source of this make-up? Additional releases from Lake Marburg could affect the fishery of the reservoir, recreational use of the reservoir, and the fishery of downst eam areas which are currently stocked with trout by the PFBC. The implications of any changes in water management to each of these issues should be thoroughly evaluated.

4) Would the siting of the proposed facility have impacts to ground water, wetlands, or the flood plain of Codorus Creek?

5) How far would the coal be transported and by what means? We have historically seen the need to construct new highway facilities to accommodate excess truck traffic to coal-fired power generation stations.

6) How does the proposed facility and the P. H. Glatfelter Company fit into the Acid Deposition Control provisions of the Clean Air Act Amendments of 1990?

7) There is presently an advisory on Codorus Creek green sunfish for dioxin. Will pre-t eatment handle dioxin which is a known contaminant of paper processing?

Thank you for the opportunity to comment on the EIS scope. We request the opportunity to be kept fully informed of the EIS process. Please feel free to contact me if either further information or clarification of the above comments is needed.

Sincerely,

Leroy M. Young, Fisheries Biologist
Division of Envi onmental Services

LMY:dms

cc: Arway, Spotts, Snyder, Kaufmann, Creyer - PFBC
Franklin, Hoffman, Schott - DER
Swartz - SRBC

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The Department of Energy is interested in obtaining your written comments on the Draft EIS for the proposed York County Energy Partners Cogeneration Facility in York County, Pennsylvania. Please provide your comments in the space below and print your name and address on the reverse side of this card. Your cards can be deposited in the boxes provided at the public hearing or mailed directly to the address on the reverse side.

WITH THE PROPOSED UTILITY LINE UP AT THE BAIR SUB-ST. W-MAR-01/12

WE ARE CONCERNED ABOUT EMFS AND THE SAFETY OF OUR FAMILY ALSO WE ARE CONCERNED ABOUT OUR PROPERTY VALUE IN BAIR. W-MAR-01/12

TABLE 2.2-6 ON PAGE 2-25 IS NOT CORRECT OUR HOME IS LOCATED WITHIN 100 METERS OF THE END OF THE PROPOSED ELECTRIC LINES. OUR NEIGHBOR MR WHITLOCK'S PROPERTY IS EVEN CLOSER NOTE: HIS WIFE DIED OF CANCER LAST YEAR AND HE HAS CANCER. ALSO THE # OF BUILDINGS IN USE OF THE LINES IS MUCH GREATER THAN 5. W-MAR-01/12a

WOULD IT BE POSSIBLE TO RELOCATE THE EXISTING SUB-STATION AND THE PROPOSED EXPANSION OUT INTO THE OPEN FIELDS AWAY FROM EXISTING (RESTRICTED UNITS) HOMES) W-MAR-01/12

I DO NOT WANT THE BAIR SUBSTATION EXPANDED BECAUSE OF THE REASONS I HAVE STATED.

ALSO NOTE THAT OUR TOWNSHIP WEST MANCHESTER IS NOT LISTED IN TABLE 9-1 PAGES 9-2 - 9-5 FOR PERMIT REQUIREMENTS W-MAR-01/12

Michael A. Roth Dec.

Name: Michael and Vivian Roth
Address: 925 Smith Dr.
York, Pa. 17404

HAPPY NEW YEAR (1762) 01/09/95

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Department of Energy
Morgantown Energy Technology Center (METC)
P.O. Box 880
3610 Collins Ferry Road
Morgantown, West Virginia 26507-0880

W-MAR-01/12a

KEYWORDS:
Electromagnetic fields
Electric switchyard
Residences
Set-backs
Utility corridor

Response: The FEIS (Sections 3.1.14.6 and 4.1.14.6) contains an expanded discussion of electromagnetic fields (EMFs), including summarized results of the most recent epidemiological studies relating to EMFs and their potential to adversely affect human health. In addition, York County Energy Partners, L.P. (YCEP) enlisted the assistance of highly qualified specialists to model the maximum or "worst case" potential EMF intensities that could be expected from the proposed electric transmission line and switchyard near the existing Bair Substation.

The proposed electric transmission line would terminate at the proposed switchyard near the Bair Substation in the community of Bair. To accommodate the proposed transmission line connection to the Metropolitan Edison Company (Met-Ed) system, a switchyard would be constructed approximately 120m (200 ft) southwest of the existing Bair Substation and over 60m (400 ft) from the Whiteleather residence. Short electric transmission lines would connect the switchyard to the existing Met-Ed 115-kilovolt (kV) transmission line.

Although a 100-meter setback could be achieved along the entire proposed corridor from the York County Energy Partners, L.P. (YCEP) Cogeneration Facility site to Bair, the comment is correct; several homes are within 100 meters (328 ft) of the existing Bair Substation. The comment regarding Mr. Whiteleather's residence is also correct; this home is within 35m (115 feet) of the existing Bair Substation. However, the location of the proposed switchyard facility would be over 120m (400 ft) from the nearest (Mr. Whiteleather's) residence, exceeding the 100-meter (328-ft) setback requirement.

Information contained in Table 2.2-6 on page 2-79 in the DEIS related to the proposed line is correct, if understood in the context of viewing the transmission line along the proposed route. However, there are more than five residential dwellings within view of the existing Bair Substation, which is adjacent to the site of the proposed switchyard facility and therefore within the project viewshed. Table 2.2-6 has been updated in the FEIS to include additional information regarding the proposed switchyard near the Bair Substation. Please see also the responses to Comments D-48/23, D-49/14, and D-52/23 for EMF concerns, and the response to Comment D-51/3 for Bair Substation concerns.

W-MAR-01/12b

KEYWORDS:
Property values
Utility corridor

Response: A discussion of the impacts from the utility corridors on local real estate values has been added to Section 4.1.14.12 of the FEIS.

W-MAR-01/12c

KEYWORDS:
Electric switchyard
Relocation
Utility corridor

Response: The proposed electric transmission line would terminate at the proposed switchyard near Bair Substation, in the community of Bair. To accommodate the proposed transmission line connection to the Metropolitan Edison Company (Met-Ed) system, a switchyard would be constructed approximately 60m (200 ft) southwest of the existing Bair Substation and over 120m (400 ft) from the Whiteleather residence (in the open field area referred to in the comment). Short electric transmission lines would connect the switchyard to the existing Met-Ed

Revised 6/14/94

PENNSYLVANIA NATURAL DIVERSITY INVENTORY
REVIEW RESPONSE

REQUESTER: Ms. Jan K. Wachter
U.S. Department of Energy
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26505

PROJECT: North Cordorus Township Project Site and Associated Optional Transmission Line Rights-of Way, York County

QUADRANGLE: *Abbotstown, Hanover, Seven Valleys, West York*

In response to your request of January 6, 1995, an area was reviewed for the presence of natural resources of special concern using the Pennsylvania Natural Diversity Inventory (PNDI) information system. We do not anticipate any impact on rare, threatened or endangered species at this location.

W-PNDI-01/17

PNDI staff

1/10/95
Date

PNDI is a site specific information system which describes significant natural resources of Pennsylvania. This system includes data descriptive of plant and animal species of special concern, exemplary natural communities and unique geological features. PNDI is a cooperative project of the Department of Environmental Resources, The Nature Conservancy and the Western Pennsylvania Conservancy. This response represents the most up-to-date summary of the PNDI data files. However, an absence of recorded information does not necessarily imply actual conditions on-site. A field survey of any site may reveal previously unreported populations. PNDI is funded through contributions to the Wild Resource Conservation Fund.

Be advised that legal authority for Pennsylvania's biological resources resides with three administrative agencies. The enclosure titled PNDI Species List, outlines which species groups are managed by these agencies. If you have questions concerning this response or the PNDI system, please contact our office at 717/787-3444 or write:

DER - Bureau of Forestry - PNDI
P.O. Box 8552
Harrisburg, PA 17105-8552

115-kilovolt (kV) transmission line. Appropriate information has been included in the FEIS (Section 4.1.14.9) to describe this facility, and figures have been included to provide a representative picture of the proposed development. Also, please see the response to Comment D-51/3.

W-MAR-01/12d

Response: The comment is correct; the location of the Bair Substation modifications is sited within West Manchester Township, and therefore, is subject to West Manchester Township zoning requirements. Table 9-1 has been corrected in the FEIS to include these requirements. Please see also the response to Comment D-51/3.

KEYWORDS:
Electric switchyard
Permits
Zoning

W-PNDI-01/17

Response: Comment is noted.

KEYWORDS:
Biodiversity
Endangered species

PENNSYLVANIA NATURAL DIVERSITY INVENTORY

SPECIES LISTS

The statutory authority for Pennsylvania's animals and plants resides with three separate agencies. The Pennsylvania Department of Environmental Resources has the responsibility for management of the Commonwealth's native wild plants. The Pennsylvania Fish and Boat Commission is responsible for management of fish, reptiles, amphibians and aquatic organisms within the Commonwealth. The Pennsylvania Game Commission has the responsibility for managing the state's wild birds and mammals.

For information on current species status, please consult the appropriate agency. Requests for information should be directed to:

Plants and PNDI - general

Plant Program Manager
PA Department of Environmental Resources
Bureau of Forestry
Forest Advisory Services
P.O. Box 8552
Harrisburg, PA 17105-8552
(717) 787-3444

FISH, REPTILES, AMPHIBIANS, AQUATIC ORGANISMS

Endangered Species & Herpetology Coordinator
Pennsylvania Fish & Boat Commission
Bureau of Fisheries and Engineering
450 Robinson Lane
Bellefonte, PA 16823
(814) 359-5113

BIRDS and MAMMALS

Pennsylvania Game Commission
Bureau of Wildlife Management
2001 Elmerton Avenue
Harrisburg, PA 17110-9797
(717) 787-5529

For information on species listed under the federal Endangered Species Act of 1973 occurring in Pennsylvania, contact:

Endangered Species Biologist
U.S. Fish and Wildlife Service
315 South Allen Street, Suite 322
State College, PA 16801
(814) 234-4090

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Jan 16, 95

Dr Suellen Van Ostenhem

Once again I am responding to your invitation for written comments concerning the proposed coal generation facility in Spring Grove PA. While I admit I am not qualified to respond to the enviromental effects it will have on all of York County, common sense would dictate that the residents in the immediate area would see a slow deterioration in their quality of life. This is a populated residential area with the local schools well within the immediate fallout range. My concerns lie in the size of the project and the age of the design, not with the general idea of a local power plant. In essence, this Hugh facility is a calculated gamble with our lives while only a business venture for the investors. W-PB-01/16a W-PB-01/16b

Respectfully

Pat Brown

Pat Brown
RD5 Box 5590
Spring Grove Pa 17362

W-PB-01/16a

KEYWORDS:
Air emissions
Children

Response: The proposed facility is not expected to adversely affect the quality of life in the community. A net reduction in particulate matter (PM_{10}), sulfur dioxide (SO_2), and oxides of nitrogen (NO_x) would be expected to result from the proposed project [although increases in carbon monoxide (CO) and volatile organic compounds (VOCs) would result]. The increase in noise due to operation of the proposed Cogeneration Facility is expected to be no more than 3 decibels, and exposure to hazardous substances emitted by the facility would not be expected to adversely affect human health. In addition, the tax and sales revenues expected to be generated by the proposed plant could improve the infrastructure of the community, such as the school system.

W-PB-01/16b

KEYWORDS:
Commercialization status
Project size

Response: The plant size proposed by the York County Energy Partners, L.P. (YCEP) is necessary to fulfill the needs of DOE's Clean Coal Technology Program, the needs of P. H. Glatfelter Company, and, ultimately, to meet the economic considerations of YCEP. The facility size is closely tied to cost efficiency, power purchase agreements, and the ability to deliver steam to P. H. Glatfelter Company.

It takes several years for a plant to go from the design stage to the operation stage; however, the proposed Foster Wheeler utility-scale atmospheric circulating fluidized bed (ACFB) would represent a design innovation more advanced (i.e., larger) and efficient than most technologies currently being used. Other clean coal technologies being developed by DOE also represent improvements over existing technologies and are in various stages of demonstration.

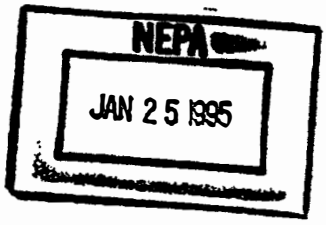
Adherence to regulations and guidelines, including public involvement and risk analyses conducted as part of the National Environmental Policy Act process, help ensure that the construction and operation of projects would not jeopardize citizens' lives.

Please refer to the response to Comments D-100/9 and D-39/13 for more information about the unique aspects of ACFB technology (especially at this scale).

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
P.O. Box 8552
Harrisburg, PA 17105-8552
January 20, 1995

717/787-3444

Bureau of Forestry



Mr. John Garland
Department of Energy, Morgantown Energy Technology Center
P.O. Box 880, Collins Ferry Road
Morgantown, WV 26507-0880

Dear Mr. Garland:

Re: Threatened and Endangered Species Review of the York County Energy Partners Cogeneration Project North Codorus Township Site and Associated Transmission Line Rights-of-Way, York County, Pennsylvania.

This letter documents our phone conversation of January 20, 1995, in response to a letter from Mr. Jan Wachter of your agency, dated January 6, 1995. The historic record of an endangered plant species, *Sparganium androcladum*, Branching bur-reed near the referenced site, cited in a letter from the Pennsylvania Fish & Boat Commission dated July 13, 1994, was investigated during our reviews of the site conducted at the Bureau of Forestry in April 1992, August 1993, and December 1994, using the Pennsylvania Natural Diversity Inventory (PNDI) information system. PNDI is a site specific information system which describes significant natural resources of Pennsylvania. PNDI includes data descriptive of plant and animal species of special concern, exemplary natural communities and unique geological features.

The only record of Branching bur-reed in this vicinity is an herbarium specimen collected in 1938 from a reservoir northeast of Hanover. More recent field work has failed to relocate the species in this area. PNDI has no record of suitable habitat for *Sparganium androcladum* at or near the referenced site, therefore, we do not anticipate any impact on this or any other species of special concern due to this project.

W-DER-01/20

Sincerely,

Edward T. Dix
Botanist
Forest Advisory Services

An Equal Opportunity/Affirmative Action Employer

Recycled Paper

W-DER-01/20 *Response:* Comment is noted.

KEYWORDS:
Biodiversity
Endangered species

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

P.O. Box 2063
Harrisburg, PA 17105-2063
January 11, 1995

Secretary's Office of Policy

Dr. Suellen Van Ooteghem
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Dear Dr. Ooteghem:

The Pennsylvania Department of Environmental Resources (DER) has reviewed the Draft Environmental Impact Statement (DEIS) involving York County Energy Partners Proposed Cogeneration Facility. We have the following comment:

W-FGC-01/11

Regional staff from the Air Quality Program, Water Management Program and Waste Management Program as well as the Regional Permit Coordinator will be involved in the required permit application reviews. Permit requirements are listed on Table 9-1 of the DEIS.

If you have any questions, please feel free to contact Michael R. Steiner at DER's Southcentral Regional Office at (717) 541-7969.

We appreciate the opportunity to comment on this proposal.

Sincerely,

Frederick G. Carlson
Director
Secretary's Office of Policy

An Equal Opportunity/Affirmative Action Employer

Recycled Paper

W-FGC-01/11

KEYWORDS:
Permits

Response: Table 9-1 in the FEIS has been revised to include Regional Staff of the Air Quality Program, Water Management Program, Waste Management Program, and the Regional Permit Coordinator as well as the state headquarters staff.

COMMONWEALTH OF PENNSYLVANIA

PENNSYLVANIA GAME COMMISSION

2001 ELMERTON AVENUE
HARRISBURG, PA 17110-9797

ADMINISTRATIVE BUREAUS:
ADMINISTRATION.....717-787-5670
AUTOMOTIVE AND PROCUREMENT DIVISION.....717-787-6594
LICENSE DIVISION.....717-787-2084
PERSONNEL DIVISION.....717-787-7836
WILDLIFE MANAGEMENT.....717-787-5529
INFORMATION & EDUCATION.....717-787-6286
LAW ENFORCEMENT.....717-787-5740
LAND MANAGEMENT.....717-787-6818
REAL ESTATE DIVISION.....717-787-6568
MANAGEMENT INFORMATION SYSTEMS.....717-787-4076

January 18, 1995

Dr. Suellen A. Van Ooteghem
U.S. Department of Energy
Environmental Project Manager
3610 Collins Ferry Road
Morgantown, WV 26505

In re: York County Energy Partners
Cogeneration Site and Transmission Line Corridors
North Codorus Township, York County, PA

Dear Dr. Van Ooteghem:

This is in response to Mr. Synoracki's letter of January 16, 1995, requesting information concerning endangered and threatened species of birds and mammals as related to this project.

W-DAM-01/18

Our office review has determined that no state listed endangered or threatened species are known to occur within the proposed project area. Except for occasional transient individuals, this project should not impact any endangered or threatened species of birds or mammals recognized by the Pennsylvania Game Commission. However, should project plans change or if additional information on endangered or threatened species becomes available, this determination may be reconsidered.

If you have any questions, please contact Roland Bergner of my staff at (717) 783-4919.

Very truly yours,

Denver A. McDowell, Chief
Division of Environmental Planning
and Habitat Protection
Bureau of Land Management

An Equal Opportunity Employer

W-DAM-01/18 ***Response:*** Comment is noted.

KEYWORDS:
Endangered species

The Department of Energy is interested in obtaining your written comments on the Draft EIS for the proposed York County Energy Partners Cogeneration Facility in York County, Pennsylvania. Please provide your comments in the space below and print your name and address on the reverse side of this card. Your cards can be deposited in the boxes provided at the public hearing or mailed directly to the address on the reverse side.

YORK COUNTY DUE TO IT'S EXCELLENT ECONOMY AND JOB MARKET HAS ALREADY ACCEPTED SEVERAL NEW TECH. ENVIRONMENTALLY INVOLVED INDUSTRIES. I BELIEVE OUR PRESENTS CONSIDERED THIS IN THEIR CHOICE OF YORK COUNTY. WE HAVEN'T BEEN MUCH ASSISTANCE FROM THIS AREA'S POPULATION OR POLITICIANS. I RESPECTFULLY REQUEST YOU CONSIDER THIS IN YOUR DELIBERATIONS ON THIS PROJECT.

OUR REPORT HAS INDICATED THAT THERE IS A SURPLUS OF ELECTRICITY IN THIS AREA. THERE IS CONFUSION WHETHER OUR ELECTRIC BILLS WON'T INCREASE IF THIS PLANT IS BUILT. I'M SURE CONSERVATION MEASURES WOULD INCREASE THE SURPLUS OF ELECTRICITY CONSIDERABLE MORE. NEW PRODUCTS NEED THIS BUSINESS, BUT WE DON'T NEED THE ELECTRICITY.

SOME ENVIRONMENTALIST HAVE PREDICTED THAT WE WILL HAVE DONE IRREPARABLE DAMAGE TO OUR ENVIRONMENT WITHIN 40 YEARS IF WE DON'T CHANGE OUR WAYS FROM A STRICTLY ENVIRONMENTALLY PROTECTIVE COAL BURNING IS A STEP BACKWARDS. ENVIRONMENTAL CONCERNS NEED TO OUTWEIGH BUSINESS VENTURES IF WE ARE TO REVERSE OUR DESTRUCTIVE COURSE.

WE ARE 1/6 OF THE WORLD'S POPULATION THAT IS USING 30-40 PERCENT OF THE WORLD'S NATURAL RESOURCES. THIS CAN'T CONTINUE. WE NEED TO ACCEPT OUR RESPONSIBILITY BUILDING ADDITIONAL POWER PLANTS THAT PROMOTE OUR CURRENT STATUS QUO OF EXCESSIVE MATERIALISM ARE HAVE FUL ON BOTH THE SHORT AND THE LONG TERM.

EPA Public Hearing 1-26-95

W-M36-1/26a

W-M36-1/26b

W-M36-1/26c

W-M36-1/26d

Name: _____

Address: _____

Mr. Jeffrey S. Lears
Rt 1 Box 760
New Freedom PA 17349

BALTIMORE, MD
PM
25
DEC

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Department of Energy
Morgantown Energy Technology Center (METC)
P.O. Box 880
3610 Collins Ferry Road
Morgantown, West Virginia 26507-0880

W-M36-1/26a

KEYWORDS:
General

Response: Sections 4.1.12 and 4.2.12 of the EIS analyze the socioeconomic impact of the proposed project at the North Codorus site. No major adverse or beneficial socioeconomic impacts are associated with the proposed project, with the possible exception of the increase of 276 construction jobs during the three years of construction for the proposed project, the $6.3 million in annual state and local tax revenue resulting from operation of the proposed project, and the $500,000 in property taxes, directly benefitting the Spring Grove School District and York County. Reasons for YCEP selecting York County for the proposed demonstration project are discussed in Section 2.2.1.1 of the EIS.

W-M36-1/26b

KEYWORDS:
Electric utility rates
Need for power

Response: Please see the response to Comment D-83/5.

W-M36-1/26c

KEYWORDS:
Cumulative effects

Response: The National Environmental Policy Act process helps to ensure that environmental concerns are factored into the Federal government's decision-making process related to the expenditure of government funds and/or the use of public lands. In particular, Chapter 6 of the EIS, Cumulative Effects, analyzes the effect of the proposed project with respect to past, present, and reasonably foreseeable future actions that may affect the same resources as the proposed action.

W-M36-1/26d

KEYWORDS:
General

Response: There are a number of programs that DOE is investigating and promoting in order to conserve natural resources (e.g., conservation, use of renewables). However, DOE also believes that a multi-faceted program of research, development, and demonstration projects encompassing a range of energy management strategies to meet the current and future United States energy needs would best support the interests of the Nation in terms of national security.

Please see also the response to Comment J-97/5.

SFA Pacific, Inc.
444 Castro Street, Suite 920
Mountain View, California 94041

Telephone: (415) 969-8876
FAX: 415-969-1317

January 25, 1995

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Subject: Public comments on the Draft EIS for the York County Energy Partners circulating fluidized bed combustion (CFBC) boiler cogeneration project.

Dear Dr. Van Ooteghem:

I was shocked to see that several people made technically incorrect statements in public comments regarding the size and commercial experience with large CFBC boilers of the above projects. W-SFA-1/25

Enclosed is a listing of the ten largest CFBC boilers in the world. This includes planned, under construction, and operating units. The list was generated from our company's (SFA Pacific, Inc.) FBC database. The York County CFBC project represents the largest CFBC boiler in the world.

The York County CFBC project clearly deserves DOE Clean Coal Technology (CCT) support due to the technical risk of building the largest CFBC boiler in the world. Please note that SFA Pacific has never done work for the CFBC vendor for the York County project (Foster Wheeler), and we have no vested interest in this project.

For completeness, I have also enclosed the following:

- A December 7, 1994 letter to Pennsylvania State Representative Todd Platt's staff from me, which included output data from our FBC database clearly showing the York County CFBC project represented the largest CFBC boiler in the world.
- Brochure about SFA Pacific, Inc., which includes my professional biography.
- A recent paper we presented on our FBC Database.

W-SFA-1/25

KEYWORDS:
Commercialization status

Response: The list mentioned further confirms the significance of the scale at which the proposed project would be demonstrated. Please also refer to the additional information provided in response to Comment D-39/13. Section 1.3, "Purpose and Need," in the FEIS has been revised to address more thoroughly the public's interest in other fluidized bed combustor (FBC) projects, both existing and proposed, and has been updated to incorporate the latest developments of new FBC projects.

SFA Pacific, Inc.

The York County CFBC project deserves everyone's support as it is a "win-win." It will benefit the local York County environment and economy while also helping the overall U.S. environment and economy by assisting an American developed CFBC technology to become the world leader.

Sincerely,

Dale R. Simbeck

Dale R. Simbeck
Vice President, Technology

DRS:ba

Enclosures

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SFA Pacific, Inc.
444 Castro Street, Suite 920
Mountain View, California 94041

Telephone: (415) 969-8876
FAX: 415-969-1317

December 7, 1994

Mr. Bryan Tate
c/o State Representative
Todd Platt's office
1998-C Carlisle Blvd.
York, PA 17404

Dear Bryan:

I greatly enjoyed our telephone discussion on Friday, December 2 regarding fluidized bed combustion (FBC) boiler technology. I hope the information I sent you about large FBC boiler installations is useful.

I believe the York 250 MW FBC project is a very worthwhile effort that deserves everyone's support. As we discussed, this project is much like the many anthracite waste-fired FBC projects in Pennsylvania, as it is a "win-win." The York project will benefit both the local environment and local economy.

Please contact me if I can be of additional assistance. Being from Pennsylvania and a Penn State graduate, I am always willing to help with efforts that improve Pennsylvania.

Sincerely,

Dale

Dale R. Simbeck
Vice President, Technology

DRS:ll

cc: Gary Kinsey, York County Energy Partners

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SFA Pacific Fluidized Bed Combustion Boiler Database
10 Largest CFBC Boilers in the World

Date Printed
1/20/96

Project Owner / Location	Vendor / Combustor Type (Trade Name)	No. of Boilers	Unit Steam Flow, Mlb/hr Main/Reheat	Steam Conditions: Press., psig Main/Reheat	Steam Conditions: Temp., °F Main/Reheat	Power Output MW (net)	Fuel	Application	Start-up Date	Operating Status
York County Energy Partners Spring Grove, PA USA	Foster Wheeler Energy Corp. Circulating Fluidized Bed Combustion	1	2,100 / 1,400	2,500 / 622	1,005 / 1,005	225	Bituminous coal	Cogeneration	1998	Planning
Electricite de France/Soprofil Gardanne, France	Lurgi Circulating Fluidized Bed Combustion	1	1,540 / 1,435	2,465 /	1,050 / 1,050	225	Lignite	Utility	1995	Construction
Turow Power Station Bogatynia, Poland	Ahlstrom Pyropower Circulating Fluidized Bed Combustion (Pyroflow)	2	1,472 / 1,319	1,965 / 368	1,005 / 1,005	410	Lignite	Utility	1998	Planning
AES - Warrior Run Cumberland, MD USA	ABB Combustion Engineering Systems Circulating Fluidized Bed Combustion	1	1,297 / 1,005	1,890 /	1,005 /	180	Bituminous coal	Cogeneration	1998	Planning
Nova Scotia Power Corporation Point Aconi, Nova Scotia Canada	Ahlstrom Pyropower Circulating Fluidized Bed Combustion (Pyroflow)	1	1,163 / 1,025	1,854 / 602	1,005 / 1,005	165	Bituminous coal	Utility	1998	Operating
Wisconsin Public Service Rhinelander, WI USA	ABB Combustion Engineering Systems Circulating Fluidized Bed Combustion	1	1,100 / 0	1,890 /	1,005 /	90	Subbituminous coal	Cogeneration	1998	Engineering
Texas-New Mexico Power Co. Bremond, Robertson County, TX USA	ABB Combustion Engineering Systems Circulating Fluidized Bed Combustion	2	1,025 / 922	1,990 / 465	1,005 / 1,005	300	Lignite	Utility	1998	Operating
Tri-State Generation and Transmission Nucla, CO USA	Ahlstrom Pyropower Circulating Fluidized Bed Combustion (Pyroflow)	1	925 / 0	1,510 /	1,005 /	110	Bituminous coal	Utility	1987	Operating
ACE Cogeneration Trona, CA USA	Ahlstrom Pyropower Circulating Fluidized Bed Combustion (Pyroflow)	1	910 / 0	1,825 /	1,005 /	98	Bituminous coal	Cogeneration	1990	Operating
CMEC Neijang, China	Ahlstrom Pyropower Circulating Fluidized Bed Combustion (Pyroflow)	1	905 / 0	1,421 /	1,004 /	100	Bituminous coal	Utility	1996	Construction

Total number of units sold = 12 — Total number of reheat units sold = 8
Total number of projects = 10 — Total number of reheat projects = 8
Total primary capacity sold = 16,004 M lb/hr — Total reheat steam flow = 9,347 M lb/hr

Source: SFA Pacific, Inc. Mountain View, CA 415-969-4676 Confidential FBC Database

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BILL GOODLING
19TH DISTRICT, PENNSYLVANIA

TOLL FREE DISTRICT NUMBER:
800-632-1811

RANKING MINORITY:
COMMITTEE ON
EDUCATION AND LABOR

COMMITTEE ON
FOREIGN AFFAIRS

Congress of the United States
House of Representatives
Washington, DC 20515-3819

January 24, 1995

ROOM 2263
RAYBURN HOUSE OFFICE BUILDING
TELEPHONE: (202)-225-5836

DISTRICT OFFICES:

FEDERAL BUILDING
200 SOUTH GEORGE STREET
YORK, PA 17405-7317

CHAMBER BUILDING
212 NORTH HANOVER STREET
CARLISLE, PA 17013-2423

140 BALTIMORE STREET
ROOM 301
GETTYSBURG, PA 17325-2311

2020 YALE AVENUE
CAMP HILL, PA 17011-5456

44 FREDERICK STREET
HANOVER, PA 17331-3598

Dr. Suellen Van Ooteghem
Environmental Project Manager
Morgantown Energy Technology Center
PO Box 880
Morgantown, West Virginia 26507-0880

Dear Dr. Van Ooteghem:

The attached communication sent to me by Harold McFerren has been respectfully referred to you for your review, consideration, and comment.

I ask that you kindly return the enclosed correspondence to Kimberly Strycharz of my staff.

Thank you in advance for your assistance.

Sincerely,

BILL GOODLING
Member of Congress

WFG/ksf
enclosure

THIS STATIONERY PRINTED ON PAPER MADE OF RECYCLED FIBERS

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JAN 4 1995

RD5 Box 5234 Hillside Lane
Spring Grove, PA 17362
December 29, 1994

The Honorable Bill Goodling
Federal Building Room 103
200 S. George St.
York, PA 17405

Congressman Goodling:

I am greatly distressed by the proposed Co Gen plant that is seeking endorsement from the US Department of Energy. As observed by many speakers at the York Fair Ground review session, the Department of Energy's draft report is the product of hurried, incomplete, and, at times, inaccurate information. Personally, I am concerned that the report refers to those of us who live within close proximity of the proposed site as "receptor points." I understand that the men and women who built this draft report are trained to use objective scientific jargon. However, the "receptor points" are our homes (not just houses but our homes) our children's play yards, our place of comfort, laughter and familial identity. Our homes are the outward manifestation of Thomas Jefferson's promise that each of us individual citizens has the "inalienable right to life, liberty and pursuit of happiness." The "receptor points" are our attempt to realize the American Dream. To what extent should objective, clinical language be allowed to discolor the human suffering that will result from this incursion of industry into our homes, our families, our lives? We will live in the shadow of the smokestake and within the noise parameters twenty-four hours a day while the plant's contractors and operators and profiteers will return to their distant homes and families. To what extent can my fears be calmed when I listen to Department of Energy representatives say what the noise level "should be," what the pollution level "should be"? "Should be" is not comforting when I hear the representatives try to second guess what will be. But then, who must deal with the unsuspected consequences of the "should be" projections? What guarantees can we be given? What happens if the blasting causes my water wells to go dry? Where will I get the glass of water for my child to drink? Now my home is a place of conversation? How will the coupling and uncoupling of hundreds of coal cars in an open field affect my family's ability to converse, to read, to relax. I have read my copy of the Department of Energy's report and I know what "should be." But "should be" is of no consequence to the report's writers two years from now when the fact contradicts what "should have been." Not only must we suffer the

W-HLM-12/29a

W-HLM-12/29b

W-HLM-12/29c

W-HLM-12/29d

W-HLM-12/29a

Response: Comment is noted.

KEYWORDS:
General

W-HLM-12/29b

KEYWORDS:
NEPA
Uncertainty

Response: It should be understood that in developing an EIS during the planning phase of any project, authors are dealing with some uncertainty in terms of many of the specific impacts that may occur. Instead of making definitive statements, the authors attempt to be more accurate and state their findings in terminology representative of the degree of uncertainty (e.g., "should," "probably," "it is expected that . . ."). Due to the technological maturity of the proposed technology and the extensive information base available for the design of the proposed project, there would tend to be fewer unsuspected consequences resulting from this action than from other demonstration projects, due in large part to the expected low occurrence of upset conditions and off-specification performance for atmospheric fluidized bed combustor (AFBC) technology.

The proposed project would be required to adhere to all applicable Federal, state, and local laws. This requirement is one mechanism by which the industrial partner would deal with any unsuspected consequences of the proposed project. In addition, during the demonstration phase of the proposed project, DOE would require the generation of an Environmental Monitoring Plan, whereby the status of environmental performance/non-conformance would be reviewed by DOE.

Please see also the response to Comment J-62/20.

W-HLM-12/29c

KEYWORDS:
Blasting
Groundwater wells
Water quality

Response: The preliminary site investigation work completed by York County Energy Partners, L.P. (YCEP) shows that the subsurface site conditions would not require blasting during construction of the proposed facility. Consequently, there is no potential disruption of groundwater supplies.

W-HLM-12/29d

KEYWORDS:
Noise
Rail cars

Response: Lifestyles, personal preferences, and activity patterns vary widely within a population. These affect an individual's perception of noise impacts on the execution of personal activities. Nevertheless, various guidelines and criteria have been established to assess the impact of noise to the average individual. The noise assessment conducted for the proposed project considered the potentially adverse impacts of rail car noise for 7 specific locations which included residences nearest to the proposed facility as well as potentially noise-sensitive locations (e.g., the T&J Breeder Farm and Lions Club pavilion). The predicted noise levels due to rail car coupling and uncoupling are tabulated in Table 4.1-37 of the EIS. At one of these residences, the home of the manager of the T&J Breeder Farm, the maximum coupling noise level is predicted to be 56 decibels.

environmental consequences and loss of our homeland's worth, but now we must assume through our taxes any cost overrun for the project that is lining Air Product's pockets with huge profits. Please, Congressman Goodling, become more aggressive in defending our homes from the Air Products and York County Energy Partners' invasion of North Codorus Township. Please use your political acumen to say to those who will profit from our misfortune that they may not reap profits at our expense. Please work immediately to expel this nightmare from our backyards.

Your constituent,

Harold L. McFerren

Harold L. McFerren

In its 1974 document "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety," the Environmental Protection Agency (EPA) recommended an exterior day-night noise level of 55 decibels as adequate to allow 100 percent intelligibility of human speech indoors at normal distances and volumes. Rail car coupling and uncoupling can produce short duration, impulsive noise, as slack in a string of cars is taken up during starting or stopping. Noise from coal-car coupling and uncoupling for the proposed project would be infrequent (every five days) and would occur during the day when background noise is generally higher.

The maximum noise level from coal-car coupling and uncoupling at the residence of the T&J Breeder Farm manager would be 1 decibel higher than the EPA's 1974 recommendation. However, the expected maximum noise is of short duration, and would not be expected to interfere with normal conversation. For the other residences included in the noise assessment, the predicted noise from coal-car coupling and decoupling would be below the existing daytime noise levels, and would not be expected to adversely affect human conversation. This "human conversation" impact criteria is a standard guideline used to judge generic noise impacts.

4112 Robinhood Dr
York, Pa. 17404
Jan. 25, 1995

Dear Mr. Ostaglem;

I seldom write letters on controversial problems but the cogeneration plant proposed for Spring Grove, Pa. has us greatly disturbed.

I complimented the DOE for ~~setting~~ the hearings on the proposed coal burning plant. It is obvious the Energy Partners want to rush this thru before all the negative facts are shown.

I do not feel that the companies involved are completely honest about the air emmissions and water pollution. I suspect the claims made are exaggerated & not too trustworthy. I am sure they would only divulge the very least figures. W-RDG-1/25a

Further we do not need to spend good government money W-RDG-1/25b

/over

W-RDG-1/25a

KEYWORDS:
Air emissions

Response: York County Energy Partners, L.P. (YCEP) and its contractors have prepared over 25 separate publicly available documents that provide the data and analysis related to the proposed project. These data have been independently analyzed by the staff at DOE and their contractors. The data have been provided to and reviewed by regulatory agencies to support their decision-making processes relative to air emissions and water pollution. There are numerous quality control and information/data validation steps that have been institutionalized in executing the National Environmental Policy Act process for this proposed project that help to ensure the accuracy of the information.

Please see also the responses to Comments D-112/15, D-125/12, D-287/16, and J-93/19.

W-RDG-1/25b

KEYWORDS:
Government funds

Response: Please see the responses to Comments W-MJN-11/29 and W-PNP-12/19.

To support this questionable project, it could well be used more wisely. We also feel someone should look more closely into the controversial letter questioning the validity of pollution data. Where there is smoke there is fire, I mean intended

(continued)

W-RDG-1/25c

Sincerely,
Ralph D. Gilbert

Mr. & Mrs. Ralph Gilbert
4112 Robinhood Dr.
York, PA 17404

Mr. Sweellen Van Ooteghem
U.S. Dept of Energy
P.O. 880
Morgantown, W.Va. 26507

W-RDG-1/25c

KEYWORDS:
General

Response: It is believed by DOE that the Department of Justice or the Inspector General's offices may be conducting investigations to determine whether the allegations in the letter are indeed factual. Other than the "controversial" letter and the allegations it made, no evidence has been provided by third parties to DOE which would substantiate the claims in this letter.

Please see also the responses to Comments D-112/15, D-125/12, D-287/16, J-93/19, and W-RDG-1/25a.

LAW OFFICES
RYAN, RUSSELL, OGDEN & SELTZER
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ALAN MICHAEL SELTZER
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JANET E. ARNOLD

HAROLD J. RYAN (1972)
JOHN S. McCONAGHY (1981)

January 27, 1995

VIA FEDERAL EXPRESS

Suellen A. Van Ooteghem, Ph.D.
Environmental Project Manager
Environment, Safety & Health Program Support Division
Department of Energy
Morgantown Energy Technology Center
P. O. Box 880
Cullins Ferry Road
Morgantown, West Virginia 26507-0880

Re: Draft Environmental Impact Statement for the Proposed York County Energy Partners Cogeneration Facility

Dear Dr. Van Ooteghem:

Thank you for forwarding a copy of the Draft Environmental Impact Statement ("EIS") for the proposed York County Energy Partners Cogeneration Facility in York County, Pennsylvania.

We represent Metropolitan Edison Company ("Met-Ed"), the proposed purchaser of the electric energy and capacity from the above referenced facility. Met-Ed was directed by the Pennsylvania Public Utility Commission ("Commission") to enter into a power purchase agreement ("PPA") with York County Energy Partners ("YCEP"), and did so in April 1992.

This letter provides Met-Ed's comments to the EIS for consideration by the Department of Energy ("DOE").

These comments are intended to clarify certain statements in the EIS in connection with Met-Ed's proposed energy and capacity needs and the alternatives available to it in the absence of the YCEP project. We hope these clarifications to the EIS will be helpful to the DOE and other interested parties.

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On page 1-10 of the EIS, reference is made to certain annual Met-Ed filings with the Commission pursuant to regulations at 52 Pa. Code §§ 57.49 and 57.50. The data and information provided by all electric utilities in Pennsylvania pursuant to these regulations is in a format prescribed by the Commission. These filings do not contain all of the relevant data and information necessary to reach meaningful and accurate conclusions regarding an electric utility's short, intermediate and long-term electric energy and capacity needs. The bulk of the data filed pursuant to these regulations contains 20 year projections of electric demand and capacity - focusing attention on long-term rather than short and intermediate term needs. Met-Ed believes that undue reliance upon the data submitted to the Commission in the referenced filings can provide inaccurate and less than complete information regarding the Company's full array of plans to meet its ever-changing long, intermediate and short term capacity and energy needs. The scant information contained in the EIS does not allow us to reach any definitive conclusions about how the DOE may have used the Commission filings in the report. However, it appears that the DOE may have placed substantial reliance upon public information that does not constitute the entire basis upon which actual energy and capacity planning decisions are made at Met-Ed. W-AMS-1/27a

For example, on page 1-11 of the EIS, reference is made to a document entitled "Electric Power Outlook for Pennsylvania, 1993-2013 (1994)" which is prepared annually by the Commission's Bureau of Conservation, Economics and Energy Planning. Since the interpretation and analysis of this data are not subject to prior review and comment by jurisdictional electric utilities, it is not always reasonable or appropriate to rely upon this document as a definitive resource for Met-Ed's overall energy and capacity needs. While it is true that the investor-owned utilities operating within Pennsylvania provide the data included in the Electric Power Outlook for Pennsylvania, there is little, if any, opportunity to rebut, clarify or change any of the reported material or conclusions relating thereto.

Perhaps the greatest indication that the EIS contains inaccurate and misleading information is the statement set forth on page xxi where the report concludes:

> Met-Ed has indicated that future electricity demands would be met by purchasing power from new non-utility generators. Based on a 1992 Met-Ed solicitation for bidders, it is reasonable to assume the need for power would be met by either a 227 MW natural gas-fired combined-cycle facility or a 227 MW twin boiler coal-fired facility.

W-AMS-1/27a

KEYWORDS:
Energy economics
Energy management
Met-Ed

Response: DOE analyzed another no-action alternative ramification in the FEIS, purchasing electricity in the short-term from the power pool, as a result of the information received from Metropolitan Edison Company (Met-Ed).

The information contained in the DEIS was based on publicly available information, information supplied by Met-Ed, or recent actions taken by Met-Ed in the past at the time of the writing of the DEIS.

The aforesaid quote from page xxi of the EIS is not supported at all. To the best of Met-Ed's knowledge, it was not contacted by the DOE or any parties providing input into the EIS for the Company's assessment of its needs. In any event, it is unreasonable to assume that any need for electric power during the relevant planning horizon for the YCEP Project would be met by a 227 megawatt natural gas-fired combined cycle facility or a 227 megawatt twin boiler coal-fired facility. There are several more preferable options available for economically meeting any projected energy and capacity needs, including short-term energy and capacity purchases from the power pool, purchase transactions outside of the pool with private entities, etc. that are likely to be utilized by the Company in the absence of the proposed YCEP Project. Given the vagaries of the long-term energy supply market, the ready availability of short-term energy and capacity, and the overwhelming changes currently taking place in the electric utility industry, there is a decided preference against (i) entering into long-term power purchase agreements for capacity and electric energy, and/or (ii) utility construction of new power plants. Thus, Met-Ed would not build its own combined cycle facilities as suggested on page xxi of the EIS. (continued)

The EIS does not appear to understand and appreciate the capacity planning process and the current market for energy and capacity. On page 2-71 of the EIS, the report "assumes" that new power generation facilities would be required to meet needs in the region. As discussed above, this is simply not correct. There is ample energy and capacity available on the market from which Met-Ed could (and would in the absence of the YCEP Project) satisfy its needs. Because of excess electric generating capacity presently available in the Mid-Atlantic region, there are abundant supplies of very low cost capacity and energy from which Met-Ed could, and would, meet its needs over the next 2-6 years in the absence of the proposed YCEP Project. W-AMS-1/27b

There is also a common theme in the EIS that the proposed YCEP Project is needed specifically to support electric requirements in the York County area and, absent the project, Met-Ed would construct a power plant there. The location of a power plant is rarely related to the specific electric needs of any particular community within the Company's service territory. Rather, power plants are built based upon the electric capacity and energy needs of the entire Met-Ed electric system, and located on those sites that permit the most cost-effective and environmentally benign construction. It is not correct to assume that if a power plant was built to serve the needs of all of Met-Ed's customers, such a facility would be constructed in York County. W-AMS-1/27c

Met-Ed also takes issue with the unsupported statement on page 2-71 that it would conduct a bidding program "similar" to that conducted in 1992 if it needed capacity under the no-action alternative. The highly structured and prescriptive nature of Met- W-AMS-1/27d

W-AMS-1/27b

Response: Please see the responses to Comments D-83/5 and W-AMS-1/27a.

KEYWORDS:
Energy economics
Energy management
Met-Ed

W-AMS-1/27c

Response: DOE did not assume that if a power plant was built to serve the needs of all Metropolitan Edison Company's (Met-Ed) customers, such a facility would be constructed in York County. On the contrary, it assumed the opposite, as noted in the generic (site) analyses for the two power plant options (gas-fired combustor, coal-fired twin boilers) that could hypothetically be built as a ramification of selecting the no-action alternative.

Please see also the responses to Comments D-205/17 and W-JK-1/28hh.

KEYWORDS:
Energy management
Met-Ed

W-AMS-1/27d

Response: Please see the response to Comment W-AMS-1/27a. Section 2.2.4 of the FEIS has been revised to reflect information received by DOE from Metropolitan Edison Company.

KEYWORDS:
Energy management
Met-Ed

Ed's 1992 competitive solicitation (which was originally filed in June 1989) has not been repeated in Pennsylvania and has been superseded by later bidding programs conducted in New Jersey by Met-Ed's sister company, Jersey Central Power & Light Company ("JCP&L"). None of the winning bids in JCP&L's most recent solicitation was from a non-utility generation supplier, contrary to the statements on page 2-71 of the EIS. In addition, more than 6000 megawatts of capacity was bid in this solicitation for at best a 500 megawatt capacity need, further substantiating the current availability of low cost energy and capacity in this region. (continued)

Finally, and most importantly, Met-Ed cannot agree with the statement on page 4-134 of the EIS that operation of the YCEP Project would provide lower costs to the local area than if Met-Ed built another facility to fill its energy needs. Met-Ed's current economic analyses clearly show that the proposed payments to YCEP are likely to be hundreds of millions of dollars greater than if Met-Ed constructed a new gas-fired combined cycle facility. Met-Ed recently completed an economic evaluation of its entire non-utility generation portfolio, including the proposed YCEP Project. The expected payments to YCEP were compared to the costs of a new gas-fired combined cycle generating facility operating over a similar period. As demonstrated by these studies, the YCEP Project does not provide the long (or short) term economic benefits to Met-Ed and its customers portrayed in the EIS. W-AMS-1/27e

We hope the foregoing comments concerning Met-Ed's energy and capacity needs are helpful in the final review of the EIS.

If you would like us to answer any specific questions in connection with this letter, please do not hesitate to contact me.

Very truly yours,

RYAN, RUSSELL, OGDEN & SELTZER

Alan Michael Seltzer

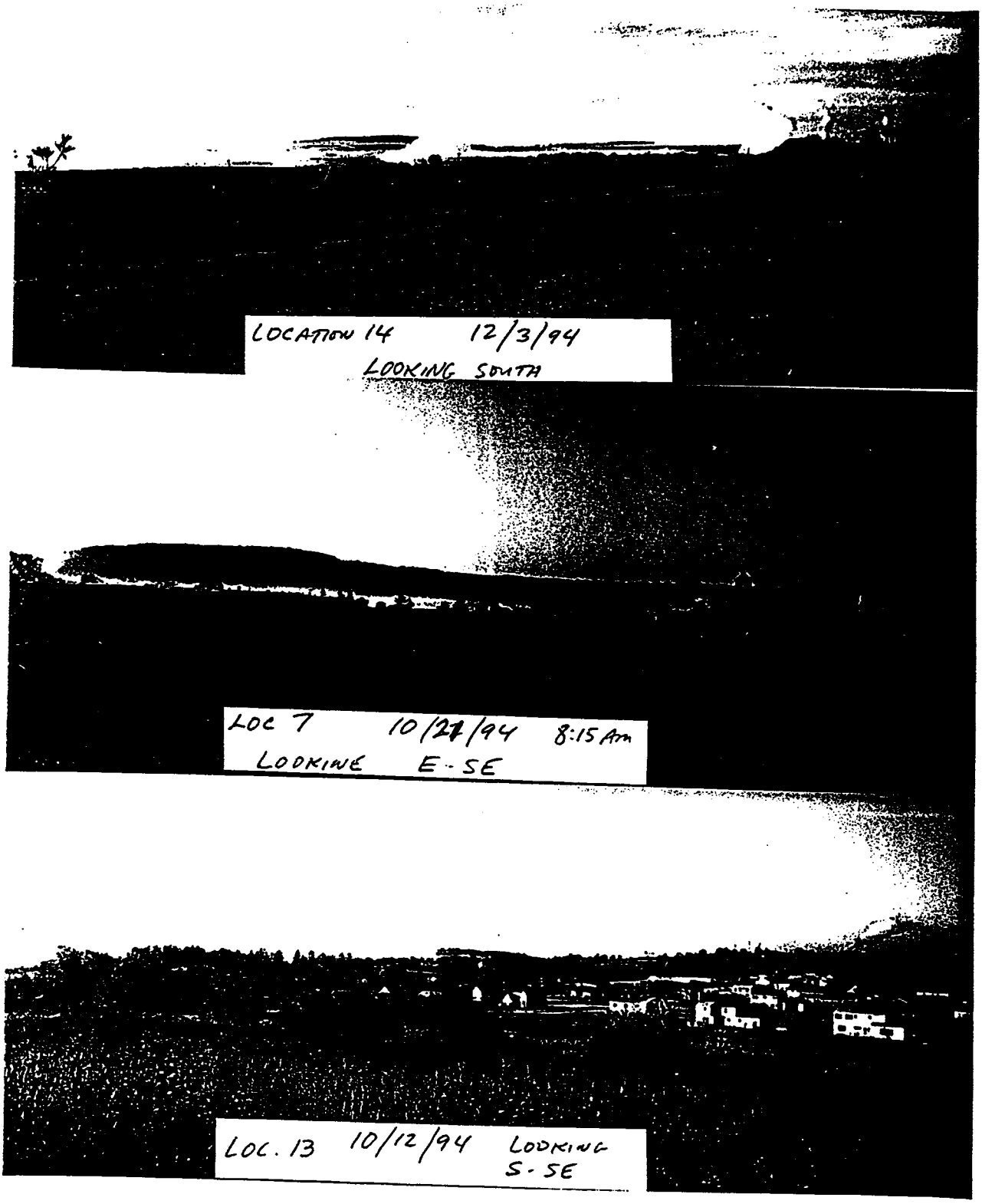
AMS/sae

W-AMS-1/27e

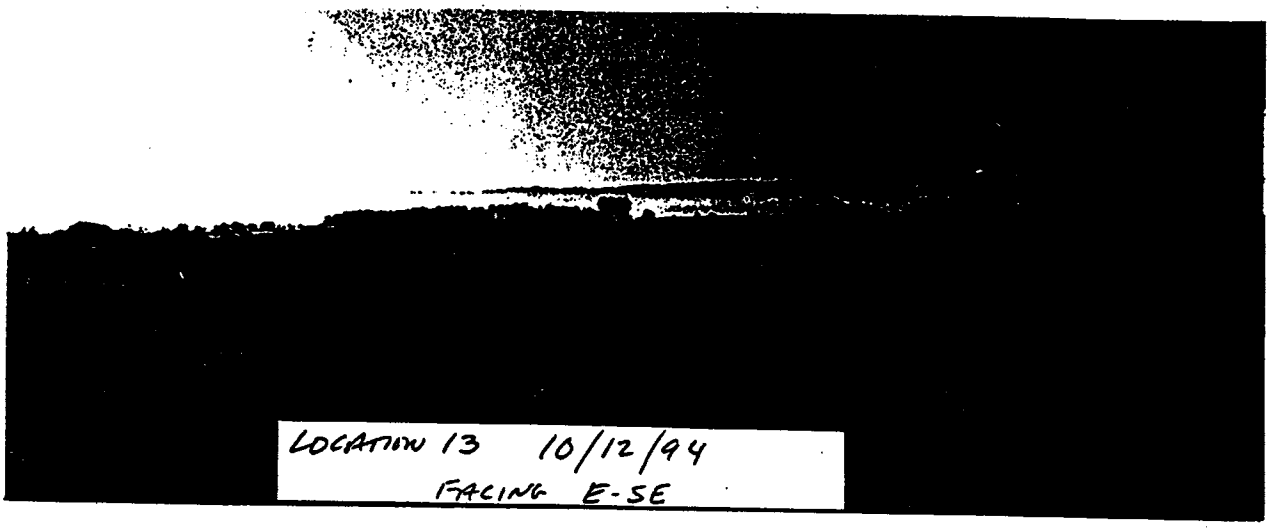
KEYWORDS:
Electric utility rates
Energy economics
Met-Ed

Response: The cited statement in the DEIS (which has been removed from the FEIS) was based on a very generic comparison of costs for the proposed project (which would be co-funded by the Federal government on the order of $75 million) to other new coal-based facilities not having these monies factored into their cost structure. Information from Metropolitan Edison Company (Met-Ed) indicates that there are short-term options (e.g., purchasing excess electricity in the power pool and a gas-fired combined cycle facility) which would provide cheaper energy to the marketplace than the proposed project. DOE has analyzed both of these cited options in the analysis of the no-action alternative (see Section 4.3 of the FEIS).

Please see also the responses to Comments D-83/5, D-119/11, and D-137/17.


LOCATION 14 12/3/94
LOOKING SOUTH
LOC 7 10/27/94 8:15 Am
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LOC. 13 10/12/94 LOOKING
S-SE

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LOCATION 13 10/12/94
FACING E-SE

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The Department of Energy is interested in obtaining your written comments on the Draft EIS for the proposed York County Energy Partners Cogeneration Facility in York County, Pennsylvania. Please provide your comments in the space below and print your name and address on the reverse side of this card. Your cards can be deposited in the boxes provided at the public hearing or mailed directly to the address on the reverse side.

W-M41-1/30

I discovered through a FOIA request that the DEIS was printed by Dynamac Corp. employees from Nov 11 to Nov 18th, 1994. When I see the dates on which the following source documents were finalized, I wonder how seriously DOE scrutinized these documents:

Human Health Risk Assessment Report of the Cooling Tower Emissions prepared by Envicon (9 Nov 1994)

Correspondence from Envicon Corp for Analysis of Childhood and Adult Risks due to YCEP Facility Stack Emissions (9 Nov 1994)

"Errata Volume of Supplemental Information Submitted to DOE during the Preparation of the DEIS (11 Nov 1994)

Wetlands investigation report for the Proposed Roadway Improvements - PA 516 and 116 Interchange Improvements (8 Nov, 1994)

Final EIV T i TT for the proposed YCEP Facility Utility Corridors (8 Nov, 1994)

This DEIS had to be written, organized, proofread, etc. long before the source documents were completed. Very Irregular!

Name: _____

Address: _____

_____

_____

This was received by me via a telephone call from Morgantown. Dr. Van Ooteghem will send a letter.

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Department of Energy
Morgantown Energy Technology Center (METC)
P.O. Box 880
3610 Collins Ferry Road
Morgantown, West Virginia 26507-0880

W-M41-1/30

Response: Please see the responses to Comments D-112/15 and D-115/6.

KEYWORDS:
NEPA
Review
Schedule

Margaret Klunk
RD #4 Box 4624
Spring Grove, PA 17362

January 28, 1995

VIA CERTIFIED MAIL - Z 194 175 300

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Department of Energy
P.O. Box 880 (METC)
3610 Collins Ferry Road
Morgantown, West Virginia 26507-880

Re: York County Energy Partners
Draft EIS - Comments

Dear Dr. Van Ooteghem,

I would like to add one more concern to the list of concerns I submitted at the public hearing held on January 18, 1995. I question the validity of the health risk assessment of the cooling tower drift. According to page 4-55 "... YCEP identified the potential emission of chloroform from the proposed project's cooling towers. Chloroform is identified as a hazardous air pollutant under the CAA Amendments of 1990. Additionally, chloroform is a human carcinogen. To assess the potential effects that the release of chloroform would pose to human health, the DOE requested YCEP to conduct a supplemental risk assessment of the cooling tower drift." If DOE is truly concerned with the health and safety of those living in the immediate area they should have had Environ consider the already existing emissions of VOCs in particular chloroform. Certainly with the close proximity of the two plants there would be a cumulative effect. W-MK-1/28a

For their 1992 Toxic Release Inventory Report, Glatfelter reported chloroform air emissions of 295,000 pounds. In addition the EPA Form R requires completion of Section 8, Source Reduction and Recycling Activities, which asks for projected emissions. Glatfelter's Toxic Release Inventory for 1992 projects an increase in chloroform emissions for 1994 to 299,000 pounds. What would be the cumulative health effect of adding YCEP's projected chloroform emissions of 1,140 lbs. per year to the already huge amount being released by the Glatfelter company? This cumulative impact must be considered in any valid risk assessment. W-MK-1/28b

W-MK-1/28a

Response: Please see the response to Comment W-MK-1/28b.

KEYWORDS:
Carcinogen
Chloroform
Cooling tower
Drift
Health effects

W-MK-1/28b

KEYWORDS:
Chloroform
Cumulative effects
Health effects

Response: The release of toxic substances (in this case, chloroform) does not directly translate to direct risk to human health. It is first necessary to consider the exposure pathways for the toxic substance. For carcinogenic substances, a "no-threshold" exposure assumption is applied. This means that carcinogenic substances are assumed to pose a finite risk, however small, at all exposure levels. This approach was used in the health risk assumptions conducted for the proposed project, and is consistent with EPA recommendations (*EPA, 1989b*). Under the "no-threshold" assumption, it is reasonable to evaluate the incremental health risk from the proposed project separately from the P. H. Glatfelter Company's reported emissions, since such an approach would evaluate the risks which can be rightly attributable to the Federal action being proposed.

Unit risk due to inhalation of chloroform is 2.3×10^{-5}. This means that the risk of incurring cancer from a lifetime exposure to an average daily dose of 1 $\mu g/m^3$ would be approximately 2 in 100,000. The maximum ground-level air concentration of chloroform attributable to the proposed project would be 3.05×10^{-3} $\mu g/m^3$. The additional cancer risk due to this incremental exposure would be 2 in 100 million. For the reasons discussed above, this risk, which is the incremental risk attributable to additional chloroform from the proposed facility, is not dependent on the baseline concentrations in the existing environment.

A discussion on chloroform emissions from the P. H. Glatfelter Company is included in Section 3.1.2 of the FEIS. Please also see the response to Comment J-64/16.

page 2 Comments on DEIS Dr. VanOoteghem

W-MK-1/28c

Glatfelter has a potential release of VOCs totalling 1730.401 tons per year with an actual release of 1400.3 tons per year. The #4 power boiler accounts for only 3.7 of the actual tons per year released.(enclosed- page 4 of letter from Jeffrey J. Moyer, Air Pollution Control Engineer to Leif Ericson, PA DER Southcentral Regional Air Quality Program Manager) What would be the health effects of adding more VOC emissions to this area? This was not addressed by the health risks of stack emission study done by Environ. Again, cumulative impacts should be considered. The health impact from VOCs produced by the proposed YCEP project were addressed in two paragraphs on page 4-62. The conclusion was "... Therefore, VOCs emitted form the proposed project are not expected to adversely effect human health." However, in light of the already existing conditions, the high ambient concentration of VOCs originating from the Glatfelter operation, the health effect could be quite significant.

Thank you for your consideration.

Sincerely,

Margaret Klunk

Margaret Klunk

enclosures: 1992 EPA FORM R for Chloroform
P.H. Glatfelter Co TRI
pages: 1 of 9
4 of 9
9 of 9

Page 4 of Oct 4, 1994 Letter
from Jeffrey Moyer to Leif Ericson
PA DER
Glatfelter VOC emissions

W-MK-1/28c

KEYWORDS:
Air emissions
Cumulative effects
Health effects

Response: The non-cancer and cancer health risks associated with volatile organic compounds (VOCs) of health significance were analyzed in the DEIS, as shown in Tables 4.1-20, 4.1-21, and 4.1-23 in Section 4.1.2.11, as well as the paragraphs contained on page 4-62 of the DEIS.

In addition, as noted in the response to Comment W-MK-1/28b, for carcinogenic substances, the "no-threshold" exposure assumption recommended by the EPA and used in the human health risk assessments for the proposed project make it reasonable to evaluate the incremental cancer risks due to VOCs attributable to the proposed Federal action alone. The estimates of increased cancer risks from exposure to VOCs due to the proposed facility (2 in 100 million for formaldehyde; 5 in 1 billion for benzene) are not dependent on baseline conditions and would not be expected to measurably alter existing air concentrations.

In addition to carcinogenic effects, VOCs, as a class of compounds, can produce noncarcinogenic effects. In the human health risk assessment, non-cancer health risks for three compounds (ethylbenzene, toluene, and mixed xylenes) were evaluated based on expected VOC emissions from the proposed Cogeneration Facility. In assessing non-cancer effects, the "no-threshold" exposure assumption is not used. Rather, risks are based on reference concentrations (inhalation) and reference doses (ingestion) which are empirically derived either from the lowest levels for which an adverse effect is observed [Lowest Observed Adverse Effect Level (LOAEL)], or from the highest level for which no adverse effect is observed [No Observed Adverse Effect Level (NOAEL)]. A margin of safety is factored into these observed levels to allow for uncertainty. These safety factors generally decrease the observed effects levels by orders of magnitude down to a four-fold reduction (1/10,000) based on EPA guidelines. Thus, the dose levels used in estimating non-cancer risks include a significant margin of safety by design.

Risks of incurring non-cancer effects are expressed as a Hazard Quotient, which is simply the Average Daily Dose received divided by the applicable reference concentration. If the resulting fraction is less than one, then the threshold dose (which is represented by the reference concentration) is **not** exceeded, and adverse effects would not be expected. If the resulting fraction is greater than or equal to one, there would be a potential for adverse effects. Because assessing non-cancer risk is based on a threshold dose, existing conditions would normally be considered. However, the additional exposures relative to the applicable reference concentrations are so small for the VOCs emitted from the proposed facility (approximately 1/100,000th of the reference concentrations), including baseline concentrations would not be expected to measurably alter either the Hazard Quotients or the conclusions based on them as applied to the proposed project.

IMPORTANT: Type or print; read instructions before completing form)

Form Approved OMB Number: 2070-0093
Approval Expires: 11/92

EPA
United States Environmental Protection Agency

FORM R

TOXIC CHEMICAL RELEASE INVENTORY REPORTING FORM

Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also known as Title III of the Superfund Amendments and Reauthorization Act

TRI FACILITY ID NUMBER: 17362PHCLT22850

Toxic Chemical, Category, or Generic Name: CHLOROFORM

WHERE TO SEND COMPLETED FORMS:
1. EPCRA Reporting Center
P.O. BOX 3348
Merrifield, VA 22116-3348
ATTN: TOXIC CHEMICAL RELEASE INVENTORY

2. APPROPRIATE STATE OFFICE (See instructions in Appendix F)

Enter "X" here if this is a revision: [ ]

IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.

For EPA use only

PART I. FACILITY IDENTIFICATION INFORMATION

SECTION 1. REPORTING YEAR: 1992

SECTION 2. TRADE SECRET INFORMATION

2.1 Are you claiming the toxic chemical identified on page 3 trade secret?
[ ] Yes (Answer question 2.2; Attach substantiation forms)
[X] No (Do not answer 2.2; Go to Section 3)

2.2 If yes in 2.1, is this copy: [ ] Sanitized [ ] Unsanitized

SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)

I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.

Name and official title of owner/operator or senior management official:
C. NEAL CARTER, PHD,PE, CORPORATE ENVIRONMENTAL MANAGER

Signature: C Neal Carter

Date Signed: 06/18/93

SECTION 4. FACILITY IDENTIFICATION

Facility or Establishment Name: P. H. GLATFELTER COMPANY

TRI Facility ID Number: 17362PHCLT22850

Street Address: 228 S. MAIN STREET

City: SPRING GROVE

County: YORK

State: PA

Zip Code: 173620500

Mailing Address (if different from street address): NA

City:

State:

Zip Code:

PUT LABEL HERE

RECEIVED JUN 24 1993

EPA Form 9350-1 (Rev. 5/14/92) - Previous editions are obsolete.

EPA Automated Form R

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EPA
United States Environmental Protection Agency

EPA FORM R
PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER
17362PHCLT22650
Toxic Chemical, Category, or Generic Name
CHLOROFORM

SECTION 5. RELEASES OF THE TOXIC CHEMICAL TO THE ENVIRONMENT ON-SITE

			A. Total Release (lbs/year) (enter range code from instructions or estimate)	B. Basis of Estimate (enter code)	C. % From Stormwater
5.1	Fugitive or non-point air emissions	☐ NA	109000	O	
5.2	Stack or point air emissions	☐ NA	188000	O	
5.3	Discharges to receiving streams or water bodies (enter one name per box)				
5.3.1	Stream or Water Body Name CODORUS CREEK, WEST BRANCH		1000	M	NA . X
5.3.2	Stream or Water Body Name NA				. X
5.3.3	Stream or Water Body Name				X
5.4	Underground injections on-site	☐ NA	NA		
5.5	Releases to land on-site				
5.5.1	Landfill	☐ NA	5	O	
5.5.2	Land treatment/ application farming	☐ NA	NA		
5.5.3	Surface impoundment	☐ NA	NA		
5.5.4	Other disposal	☐ NA	NA		

☐ Check here only if additional Section 5.3 information is provided on page 5 of this form.

EPA Form 9350-1 (Rev. 6/14/92) - Previous editions are obsolete.

Range Codes: A = 1 - 10 pounds; B = 11 - 499 pounds;

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EPA
United States Environmental Protection Agency

EPAFORM R
PART II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)

TRI FACILITY ID NUMBER
17582PHGLI22830
Trade Chemical, Category, or Generic Name
CHLOROFORM

SECTION 8. SOURCE REDUCTION AND RECYCLING ACTIVITIES

	All quantity estimates can be reported using up to two significant figures.	Column A 1991 (pounds/year)	Column B 1992 (pounds/year)	Column C 1993 (pounds/year)	Column D 1994 (pounds/year)
8.1	Quantity released *	288000	297000	295000	293000
8.2	Quantity used for energy recovery on-site	0	0	0	0
8.3	Quantity used for energy recovery off-site	0	0	0	0
8.4	Quantity recycled on-site	0	0	0	0
8.5	Quantity recycled off-site	0	0	0	0
8.6	Quantity treated on-site	63000	63000	63000	63000
8.7	Quantity treated off-site	0	0	0	0
8.8	Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year)				0
8.9	Production ratio or activity index				1.05

8.10 Did your facility engage in any source reduction activities for this chemical during the reporting year? If not, enter "NA" in Section 8.10.1 and answer Section 8.11.

	Source Reduction Activities (enter code(s))	Methods to Identify Activity (enter codes)		
8.10.1	NA			
8.10.2				
8.10.3				
8.10.4				

8.11 Is additional optional information on source reduction, recycling, or pollution control activities included with this report? (Check one box)

YES ☐ NO ☒

Report releases pursuant to EPCRA Section 329(8) including "any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment." Do not include any quantity treated on-site or off-site.

EPA Form 9350-1 (Rev. 5/14/92) - Previous editions are obsolete.

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VOC

The seven NOx sources listed above are also VOC sources. In addition, Glatfelter has identified seven additional sources. The complete list with potential and actual VOC emissions is in the following table.

Source	Potential Emissions tpy	Actual Emissions tpy
Oxygen Delignification	88.8	0
Hardwood Digesters	0.8	0.7
Kamyr Digester	49.4	0.6
Causticizing Area	7.7	7.7
Hardwood Fiber Line	418	407.9
Softwood Fiber Line	765	715.2
Hardwood Bleach Plant	174	105.6
Softwood Bleach Plant	85	75.1
Paper Machines	9.1	9.1
Coater	11.6	11.6
Wastewater Treatment Plant	37.7	36.7
No. 1,3,&4 Power Boilers	23.6	9.5
No. 5 Power Boiler	38.6	15
No. 3 Recovery Boiler	3	0
No. 3 Smelt Tank	11	0
Lime Calciner	7	5.5
Fuel Oil & Methanol Storage Tanks	0.1	0.1
Chlorine Dioxide Scrubber Vent	0.001	0
Total	1730.401	1400.3

Note Oxygen Delignification, Chlorine Dioxide Scrubber Vent, No. 3 Recovery Boiler, and No. 3 Smelt Tank were not operational in 1993.

Four of these sources are not subject to the RACT analysis requirement. The Hardwood Digesters and Chlorine Dioxide Scrubber Vent have potential VOC emissions < 2.7 tpy and are therefore exempt. The Coater is subject to, and complies with § 129.52, and the Fuel Oil & Methanol Storage Tanks are subject to, and comply with § 129.57 and are therefore exempt.

Boilers

The No. 5 Power Boiler, as discussed before, is a circulating fluidized bed design. The boiler is designed to take advantage of staged combustion air and combustion controls to minimize VOC emissions and therefore increase efficiency. Glatfelter indicates there is only one add on control for reducing VOC emissions from this unit; that control is catalytic oxidation.

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CODORUS MONITORING NETWORK
c/o John Klunk
RD 4, Box 4624
Spring Grove, PA 17362
(717) 225-3769

January 28, 1995

VIA CERTIFIED MAIL - Z 194 175 300

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Department of Energy
P.O. Box 880 (METC)
3610 Collins Ferry Road
Morgantown, West Virginia 26507-880

Re: York County Energy Partners
Draft EIS - Comments

Dear Dr. Van Ooteghem,

I will be including in this correspondence written follow up to my oral comments made at the January 18, 1995 hearing but was unable to provide in writing at that time. They are primarily general points of concern about the DEIS. I will also continue with 29 numbered supplemental comments addressing specific details of the DEIS. Additional comments from my wife, Margaret are also enclosed in letter form and a furnished comment card.

At the 1/18/95 hearing, (not in the public record) you and Dr. Wachter indicated that a few of the 12 photographs which I had sent in March, 1994 have somehow been misplaced. If you have not been able to locate them I would probably be able to get more copies made from the negatives if you would let me know which ones they were by the numbers I used in the 3/5/94 letter. I am enclosing two recent photographs taken with a KODAK panorama camera on October 21, and December 3, 1994. A copy of a USGS Topo map with numbered locations is also included.

YCEP DRAFT EIS - POINTS OF CONCERN:

W-JK-1/28a

(A) Projected emissions figures in the DEIS are based on use of coal as fuel. It can not be assumed that during the expected operating period of the ACFB boiler that other fuels would not be burned. (fuel flexibility cited as an advantage of ACFB technology) The Glatfelter Company produces large volumes of wastewater treatment sludge and has applied to PA DER to burn sludge in their own boiler. There appears to be a high likelihood that sludge or other materials could be burned if the project is built. The DEIS should show the effect this would have on efficiency of the control of expressed emission parameters and what additional emissions would occur.

W-JK-1/28a

KEYWORDS:
Fuel use
Sludge

Response: The impact analysis contained in the EIS was performed based on the use of bituminous coal. The assumptions used to develop the EIS form an operational envelope under which the proposed facility would be allowed to operate (assuming a favorable Record of Decision). If operations were to change that would significantly and adversely alter this impact envelope during the project's demonstration period, then DOE would need to perform a supplemental analysis under the National Environmental Policy Act. Based on conversations held between R. Davis, the Pennsylvania Department of Environmental Resources (PADER), and J. Wachter, DOE, the Prevention of Significance Deterioration (PSD) permit for the proposed project would be based on the use of only bituminous coal (except for propane during start-up). Use of fuel other than bituminous coal would be in violation of the PSD permit.

DOE notes that P. H. Glatfelter Company has applied to the Pennsylvania Department of Environmental Resources to utilize sludge in its Boiler No. 5. This application for permit modification is still pending. The proposed Cogeneration Facility does not involve P. H. Glatfelter Company's Boiler No. 5.

Please see also the response to Comment J-180/16.

(B) The SEWAGE FACILITIES PLANNING MODULE Submitted to York District, PA DER (copy attached) indicates increases in projected flows for the Glatfelter facility. Might the figures expressed represent additional water demand resulting from the proposed YCEP facility? Even if this is not the case, the proposed increases in flows by Glatfelter should be expressed for the expected operating period of the YCEP facility and that information should be included in the final EIS. W-JK-1/28b

(C) Maps showing the proposed utility corridors and features of the Glatfelter property should be updated to show actual land use at present time. Much of the area represented as lagoons is now used for other activities. For example, ash and process waste landfills, mulch processing, ash handling and transfer and inactive or abandoned landfill areas. Also, Hershey Road no longer crosses Codorus Creek. W-JK-1/28c

(D) [This point should be considered as part of comment #2 submitted on 1/18/95] Water supply for the existing Glatfelter and proposed YCEP facility during periods of drought and low flow in Codorus Creek relies heavily on Lake Marburg due to its much greater capacity and the tendency of the Glatfelter Company not to draw from their privately owned lakes Pahagaco and Lehman. A York County resident who testified at the 1/18/95 hearing referred to a severe drought which occurred in 1968, just 2 years prior to completion of Lake Marburg. Rainfall data for 1968 could be compared with data for 1981, indicated as low flow year in Table 8 of Codorus Creek Water Resource Study (ERM, 6/23/94) to determine the possible effect of a serious drought on Lake Marburg and Codorus Creek and the Class A Wild Trout Fishery. W-JK-1/28d

(E) APPENDIX C: POTENTIALLY SENSITIVE VISUAL RECEPTORS - This section would be enhanced by inclusion of a map showing the locations of the receptors. A format such as USGS topographic maps would be well suited to this purpose. W-JK-1/28e

SUPPLEMENTAL COMMENTS, YCEP DRAFT EIS W-JK-1/28f

(S-1) page 3-14, line 2 - This is incorrect

(S-2) page 3-19, line 19 - River mile 0 is at the Susquehanna River, not near lineboro, Md. W-JK-1/28g

(S-3) page 3-22, lines 1-2 - Also water demands of Spring Grove Borough. W-JK-1/28h

(S-4) p. 3-27, Table 3.1-8 - Feb. 1990 PA DER "....all but phenols and chloroform conform...." What about color and temperature? W-JK-1/28i

(S-5) page 3-28, line 2 - Is 75 units the correct standard for color for Codorus Creek? W-JK-1/28j

W-JK-1/28b

KEYWORDS:
Water use

Response: The 6,000 gpd (reported in the Planning Module) does not represent additional York County Energy Partners, L.P. (YCEP) water demand beyond that reported in the DEIS, nor does it represent additional water demand by P. H. Glatfelter Company. The 6,000 gpd figure in the Planning Module represents the maximum sewage flow to P. H. Glatfelter Company's effluent treatment facility. This sewage comes from the maximum 4,500 gpd potable water consumption by YCEP plus the maximum 1,500 gpd sewage discharge from P. H. Glatfelter Company. In the Planning Module, YCEP and P. H. Glatfelter Company are proposing to modify the sewage conveyance system so that P. H. Glatfelter Company could treat both YCEP's and P. H. Glatfelter Company's sanitary waste streams. This information is presented in Figure 2.1-7 (Water Balance Diagram) of the EIS.

W-JK-1/28c

KEYWORDS:
Land use
Maps

Response: The example provided in the comment is correct; Hershey Road no longer crosses Codorus Creek. The bridge has been removed for several years. Maps of the project area included in the DEIS have been reviewed for accurate representation of current conditions. To the extent practicable, maps have been updated to reflect recent changes. In all cases, maps depicting planned improvements or facilities associated with the proposed project have been reviewed for accuracy and completeness, and modified if necessary.

W-JK-1/28d

KEYWORDS:
Codorus Creek
Consumptive effects
Drought
Lake Marburg
Trout
Water use

Response: Please see the response to Comment J-179/19 for a discussion of drought conditions, and the response to Comment J-37/22 for information on the class A Wild Trout Fishery.

W-JK-1/28e

KEYWORDS:
Map
Visual impacts

Response: An updated map showing the relative location of the visual receptors to the proposed site is presented as Figure 3.1-2 in the FEIS. Please note that two additional visual receptors have been added to the analysis of visual impact in the FEIS.

W-JK-1/28f

KEYWORDS:
Fog and ice

Response: Please see the response to Comment D-62/8.

W-JK-1/28g

KEYWORDS:
General

Response: This error has been corrected. River mile 0 represents the mouth of the river, not the point of origin.

(S-6) page 3-28, lines 3-4 - Reference to (ERM, 1994a) Sentence has been recrafted. (edited) W-JK-1/28k

(S-7) page 3-28, lines 5-18 - This paragraph misrepresents several aspects of water quality by the use of vague references, generalizations and assumptions. W-JK-1/28l

(S-8) page 3-28, 3rd para. - This paragraph lists many sources of Dioxin, but omitted chlorine bleaching of wood pulp, a known source. Bioaccumulation and the earlier consumption advisory should be included. W-JK-1/28m

(S-9) page 3-30, line 31 - 600 feet is the minimum elevation allowed. Is this statement correct with reference to the period between Memorial Day and Labor Day. W-JK-1/28n

(S-10) p. 3-31, line 18-19 - Residual sludge has been test-burned and Glatfelter has applied to PA DER to burn it in their boiler. This should be noted. W-JK-1/28o

(S-11) p. 3-36, line 12 - How was the "....approximately 60 ft. wide...." determination made. W-JK-1/28p

(S-12) p. 3-36, line 14 - Whenever flow rates at the Spring Grove gauging station are expressed, for purposes of clarity it should be stated whether the figure is adjusted to include Glatfelter wastewater flows. W-JK-1/28q

(S-13) p. 3-37, lines 4-9 - "....in the vicinity of the P.H. Glatfelter...." is vague and misleading. Upstream of would be more accurate. W-JK-1/28r

(S-14) p. 3-40, Information presented on this page appears contradictory. W-JK-1/28s

(S-15) p. 3-103, lines 9-11 - This statement is misleading because <u>all</u> applicable water quality standards are not included. W-JK-1/28t

(S-16) p. 4-18, 4.1.2.3 - <u>Estimated Emission Rates</u> lines 3-4, Except for VOC's as indicated in Table 4.4-1, which increase at 50% load. W-JK-1/28u

W-JK-1/28h

KEYWORDS:
Kessler Pond
Water use

Response: As stated in the EIS (Section 3.1.4.1), the principal reason for the construction of Lake Marburg was to meet the P. H. Glatfelter Company's demand for process water. The potable water demand for Spring Grove is met through Kessler Pond, which is not directly fed by Lake Marburg.

W-JK-1/28i

KEYWORDS:
Color
Temperature
Water quality

Response: As indicated in Table 3.1-8, the parameters of concern that were investigated in this study did not include color and temperature.

W-JK-1/28j

KEYWORDS:
Codorus Creek
Color
Standard

Response: This error has been corrected. Please see the response to Comment D-271/25.

W-JK-1/28k

KEYWORDS:
SRBC
Water quality

Response: The comment is correct. Section 3.1.4.1 of the FEIS has been corrected to more accurately reflect the Susquehanna River Basin Commission's findings.

W-JK-1/28l

KEYWORDS:
Codorus Creek
Water quality

Response: The FEIS (Section 3.1.4.1) has been changed to more precisely state the conclusions drawn from the available data on Codorus Creek's water quality.

W-JK-1/28m

KEYWORDS:
Advisory
Bioaccumulation
Chlorine bleaching
Dioxin

Response: Chlorine bleaching of wood pulp, which would come under the category of "manufacture of . . . industrial products," is a known source of dioxin, as mentioned in Section 3.1.4.1 of the EIS. Repeated tests at the request of the Environmental Protection Agency (EPA) and the Pennsylvania Department of Environmental Resources (PADER) have never detected dioxin in the P. H. Glatfelter Company effluent at detection limits as low as four parts per quadrillion *(YCEP, 1994a)*. The consumption advisory is discussed in Section 3.1.5.1 of the EIS. The fact that dioxin bioaccumulates in aquatic organisms is acknowledged.

W-JK-1/28n

KEYWORDS:
Lake Marburg
Water use

Response: The comment is correct; 182.9m (600 ft) is the minimum allowed. The phrase "between Memorial Day and Labor Day" has been deleted in the FEIS.

(S-17) p. 4-40, line 26 - This is an inaccurate statement. There are other VOC's present in Glatfelter wastewater such as phenol and acetone which are not listed under Section 112, hazardous air pollutants. W-JK-1/28v

(S-18) p. 4-41, para. 2, - lines 8-11, Did the modeling referred to take into consideration the fact that inversion conditions which occur at the site will trap cooling tower emissions in the valley and limit dispersal? W-JK-1/28w

(S-19) pp. 4-46 to 4-51 - Soil and Vegetative Effects section does not address effect of VOC's or consider combined effects of existing emissions and those which would result from YCEP operation. W-JK-1/28x

(S-20) p. 4-51 to 4-52 - Last sentence on p. 4-51 to end of paragraph on 4-52 contains inaccurate statements about emission reductions from curtailment of power boiler #4. W-JK-1/28y

(S-21) p. 4-83 - Table 4.1-28 - WWF standards should be shown. W-JK-1/28z

(S-22) p. 4-84, lines 23-25 - Average low flow is expressed, what about low flow during a summer drought? W-JK-1/28aa

(S-23) p. 4-87, 4.1.4.2.8 - Lake Marburg - A record of monthly drawdowns in years when lake elevations were below 619 ft., particularly during spring and summer should be provided. W-JK-1/28bb

lines 18 - 20 - References to lake elevations during a low flow year in this section seem to conflict with information on page 30, line 31 noted in comment #S-9. Please explain. W-JK-1/28cc

(S-24) p. 4-88, line 8 - The statement about downstream water quality contradicts information presented earlier relative to increases in concentration due to evaporation. W-JK-1/28dd

(S-25) p. 4-94, 4.1.5.1 - First paragraph is false statement. There is a large difference in the W-JK-1/28ee

W-JK-1/28o

KEYWORDS:
Boiler No. 5
Sludge

Response: The comment is correct. The P. H. Glatfelter Company applied to the Pennsylvania Department of Environmental Resources (PADER) for permit authority to burn sludge in their Power Boiler No. 5. A hearing for this proposal was conducted by PADER in the Borough of Spring Grove in December, 1994, and a permit is pending to cover this activity.

The FEIS has been revised (Section 3.1.4.1 -- Subsection on Water Use and Availability) to reflect this information, indicating that combustion in Power Boiler No. 5 is another option available to P. H. Glatfelter Company to dispose of their sludge from their primary and secondary clarifiers.

W-JK-1/28p

KEYWORDS:
Codorus Creek

Response: Environ Corporation of Arlington, VA, derived the cited information from the various studies completed on the Codorus Creek that were reviewed in their document, Biodiversity Study for Codorus Creek.

W-JK-1/28q

KEYWORDS:
Gage data
Water flow

Response: The adjustment of Spring Grove gaging data (which includes the P. H. Glatfelter Company discharge volume) is explained in Table 3.1-7 of the DEIS, but for consistency and clarity, this information will be repeated throughout the FEIS whenever flow data at the Spring Grove Station are provided.

W-JK-1/28r

KEYWORDS:
Biodiversity
Codorus Creek

Response: "Upstream" would be incorrect. This paragraph, which summarizes data presented by the Pennsylvania Department of Environmental Resources (PADER) in its 1987 Priority Water Body Survey Report, includes species found upstream and/or downstream of the P. H. Glatfelter Company outfall.

W-JK-1/28s

KEYWORDS:
Biodiversity
Codorus Creek

Response: DOE believes the summary of the Priority Water Body Survey Report Water Quality Standards Review supports the statement that "[t]he tests . . . indicate that the P. H. Glatfelter Company effluent does not cause acute or chronic toxicity to aquatic organisms."

W-JK-1/28t

KEYWORDS:
Codorus Creek
Criteria
SRBC
Water quality

Response: The FEIS has been revised to say that the Susquehanna River Basin Commission *(SRBC, 1991a)* measured 10 water quality parameters at 12 sample sites on Codorus Creek. Three sites were sampled twice. Water samples were analyzed in the field for temperature, dissolved oxygen, specific conductance, and pH. Laboratory analyses were performed for free cyanide, total alkalinity, total hardness, total copper (Cu), total lead (Pb), and total zinc (Zn). Water quality criteria do not exist for two of these parameters (specific conductance and total hardness). Of the eight parameters for which water quality criteria currently exist, six parameters [dissolved oxygen (DO), pH, temperature, alkalinity, cyanide, and zinc (Zn)] met their water quality standards at all sample sites. Exceedances were found for the other two parameters [lead (Pb) and copper (Cu)] at two sample sites.

(S-25, continued) - aquatic community structure between upstream and downstream, for which the causes should be thoroughly evaluated. (continued)

(S-26) pages 4-96 to 4-99 - Treatment of issues of aluminum by recalculating criteria is questionable. See second paragraph of my comment #1, 1/18/95. This was also done for cyanide criteria. W-JK-1/28ff

(S-27) - p. 4-197, Environmental Impacts of the No Action Alternative - The claim that the technology would not be demonstrated is questionable, considering the comments made by state representative Todd Platts on 1/18/95 relative to the applicant discussing a project with J.E. Baker Co. prior to the federal monies being available. W-JK-1/28gg

Bottom of page - (1): Why is the assumption made that there would be no associated steam host or air emissions reductions with a natural gas facility? W-JK-1/28hh

page 4-198 - (2): This issue appears to be debatable. W-JK-1/28ii

page 4-200, 4.3.1.4 Water Resources and Water Quality, second paragraph: The reasoning is flawed because evaluation of the project proposed with Glatfelter does not consider the effect of the YCEP thermal discharge if Glatfelter thermal discharges were reduced or eliminated. See comment #1, 1/18/95. W-JK-1/28jj

The greatly reduced cooling water requirement of the gas fired facility is not noted. W-JK-1/28kk

(S-28) - pages 6-12 to 6-16, Water Quality and Quantity : The discussion in this section dealing with Cumulative Effects ignores the very important issue of present impacts to Codorus Creek by the Glatfelter operation. The very large thermal impact due to the 316(a) exemption from WWF standards is ignored and not quantified. The dramatic change in chemical and aesthetic qualities occurring due to Glatfelter are overlooked. W-JK-1/28ll

(S-29) - page 6-17, 6.4.5 Conclusions, line 7-9 : This statement about dilution of contaminant concentration occurring downstream, to the confluence with the Susquehanna River ignores the issue of the condition of the biota in the 10 river miles to Indian Rock Dam which has the potential, as public land, to be a valuable recreational resource. Increased concentration of contaminants as are expected to result from the YCEP operation would decrease the likelihood of much needed improvement in the biological community in that reach of Codorus Creek. W-JK-1/28mm

Respectfully submitted,

John Klunk

W-JK-1/28u

Response: Please see the response to Comment J-49/12.

KEYWORDS:
Air emissions
Loading factors
VOCs

As discussed in Section 4.1.2.3 of the FEIS, the equipment vendor, Foster Wheeler Energy Corporation, has guaranteed to York County Energy Partners, L.P. (YCEP) that when the proposed facility is operated on a unit capacity of 50 to 100 percent, the volatile organic compound (VOC) emissions in the flue gas measured in the stack would not exceed 10 lbs/hr based on a 24-hour average (letter from Foster Wheeler Energy Corporation to YCEP, January 2, 1995). For permitting considerations, YCEP has chosen to use a 11 lbs/hr maximum VOC emission rate. Thus, regardless of the unit capacity conditions, 50, 75, or 100 percent under which the proposed YCEP facility may be operated, the maximum annual emissions of VOCs would be 48 tons.

The commenter's concern for the issue of VOC emissions at turndown resulting in exceedance of the 50-ton limit has been addressed by Pennsylvania Department of Environmental Resources (PADER) in the Prevention of Significant Deterioration (PSD) permit application review process. The PADER has included this information in the draft PSD Plan Approval, and the facility would be required to conduct performance tests of the circulating fluidized bed (CFB) boiler at these operating levels to show permit compliance.

W-JK-1/28v

Response: Phenolics were detected in samples of P. H. Glatfelter Company's effluent (25 μg/L) tested in 1986 by the Pennsylvania Department of Environmental Resources (PADER) (*1987*). Elevated concentrations of phenolics were also found at downstream sample sites. However, phenol, a compound in the Section 112 list of hazardous air pollutants under Title III of the Clean Air Act, was not detected in the analyses conducted on the treated and untreated wastewater samples for use in developing this EIS. If phenol were present in the P. H. Glatfelter Company wastewater, it would have been analyzed as a semi-volatile component in the analyses performed for the Wastewater Reuse Feasibility Report (YCEP, 1994a).

KEYWORDS:
Acetone
Phenol
VOCs
Wastewater

The only volatile organic compound of health significance that was identified in the wastewater at limits above detection levels was chloroform. Although it is not on the list of Section 112 air toxics, analyses were also conducted for acetone in the untreated wastewater. It was not detected at levels above the quantitation limits ($>$ 10 μg/L). It is noted that there were some unidentified compounds contained in the analyzed wastewater samples. However, these were present in the semi-volatile fractions analyzed, and these compounds would not be expected to volatilize in the cooling tower.

W-JK-1/28w

Response: The Seasonal Annual Cooling Tower Impacts (SACTI) modeling performed to help assess the potential for fogging or icing as a result of the proposed cooling tower associated with the York County Energy Partners, L.P. (YCEP) project (see Section 4.1.2.9 of the EIS) predicted that operation of the proposed cooling tower would produce no off-site occurrences of fogging or icing. The best meteorological data available as weather "input" to the SACTI model were assembled by creating a hybrid meteorological data base from the wind speed, wind

KEYWORDS:
Fog and ice
Meteorological data
Modeling

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direction, and stability classifications collected at the West Manchester site, approximately 10 km (6 mi) to the northeast, for the 1-year period, January through December 1992, merged with the data recorded by the U.S. National Weather Service at Harrisburg 40 km (25 mi) to the north-northeast. In addition, coincident mixing heights were derived by merging surface temperatures with the twice daily upper wind data obtained from Dulles Airport in Virginia.

The modeling does not selectively choose weather conditions: it does incorporate the occurrence of inversion under certain meteorological conditions. In addition, the modeling protocol requires that the highest modeled ground level concentration be used to determine the maximum impact. By using the highest concentration level, the computer modeling provides a conservative result. The YCEP cooling tower analysis used to determine the human health effects due to chloroform emissions used this conservative modeling approach.

Please see also the response to Comment D-104/9.

W-JK-1/28x

Response: Please see the response to Comment J-80/16.

KEYWORDS:
Air emissions
Agriculture
Soils
VOCs

W-JK-1/28y

Response: The referenced sentence is "[t]hus, in most instances, in order to generate a worst-case scenario, emissions from the proposed project were not offset by the reduction in air emissions due to curtailment or modification of either the P. H. Glatfelter Company Power Boiler No. 4 or the TGPL [Transcontinental Gas Pipe Line Corporation] facility near Delta, York County, PA." This sentence is accurately stated. Please also see the response to Comment D-35/8.

KEYWORDS:
Boiler No. 4
Emission differentials
Emission reduction

W-JK-1/28z

Response: Table 4.1-28 lists parameters currently covered by P. H. Glatfelter Company's National Pollutant Discharge Elimination System (NPDES) permit. Thus, warm water fishery (WWF) standards would not be appropriate for inclusion in this table. However, Table D-1 lists WWF criteria.

KEYWORDS:
Water criteria

W-JK-1/28aa

Response: Actually, the historic U.S. Geological Survey (USGS) data suggest that the minimum flow during a low-flow year is more likely to occur in January due to freezing conditions than during a summer drought. As presented in Section 4.1.4.2.7, the HEC-3 model projects the average minimum flow in a low-flow year to be reduced by 9.6 percent from 45 to 41 cfs (29 to 26 mgd). Other analyses (using different assumptions) indicate under worst-case low-flow conditions, reduction in flow could be between 17 and 20 percent. Please see the response to Comment J-179/19 for a further discussion of the impact of the proposed facility on water resources under drought conditions.

KEYWORDS:
Codorus Creek
Consumptive effects
Drought
Water use

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It should also be noted that under the requirements of the Susquehanna River Basin Commission (SRBC) permit, minimum flow would not be allowed to fall below 7.62 cfs (4.8 mgd) at the mill pond (during drought conditions). Environmental Resources Management, Inc. (*ERM 1994a*) found that the proposed project would not affect P. H. Glatfelter Company's ability to provide this SRBC required flow. This is because P. H. Glatfelter Company would not have to withdraw additional water from the mill pond to meet the proposed project's water needs. When flow from the mill pond drops to 7.62 cfs (4.8 mgd) during a drought, P. H. Glatfelter Company must either release water from its reservoirs to maintain the required minimum (calculated) flow or must cease withdrawals. The consumptive use by York County Energy Partners, L.P. (YCEP) would reduce the flow downstream of P. H. Glatfelter Company's discharge by the expected amount of YCEP's consumption [3.9 cfs (2.5 mgd)]. Currently, the expected minimum (calculated) flow below P. H. Glatfelter Company's discharge is about 26.9 cfs (17.4 mgd) [19.3 cfs (12.5 mgd) due to P. H. Glatfelter Company discharges + 7.6 cfs (4.8 mgd) maintained flow], assuming P. H. Glatfelter Company's consumption rate remains the same during a drought. If YCEP begins adding to the consumptive use, minimum flow would be expected to be reduced to approximately 22.6 cfs (14.6 mgd) (which represents a ~16.6 percent reduction in Codorus Creek at low-flow conditions). However, based on statistical analysis of daily discharge data from the Spring Grove gage for the period from 1970 through 1990 (*ERM 1994a*), the current minimum flow below P. H. Glatfelter Company's discharge is about 21 cfs (13.6 mgd). The proposed facility could increase consumptive use by a maximum of 4.3 cfs (2.8 mgd) and could reduce the minimum flow of Codorus Creek to as little as 16.7 cfs (10.8 mgd). This reduction translates to 20 percent.

W-JK-1/28bb

KEYWORDS:
Consumptive effects
Drawdown
Lake Marburg
Water use

Response: An EIS strives to be an analytic, rather than an encyclopedic, document. Because, as discussed in Section 4.1.4.2.8, the proposed facility would not affect the level of Lake Marburg, such specific information on the history of drawdowns of Lake Marburg from other sources would not be meaningful when applied to analyzing the impacts from the proposed project, and, as such, are not included in the EIS.

W-JK-1/28cc

KEYWORDS:
Drawdown
Lake Marburg

Response: The sentence previously noted has been amended to eliminate conflict. The information presented in Section 4.1.4.2.8 regarding lake elevations is accurate.

W-JK-1/28dd

KEYWORDS:
Attenuation
Consumptive effects
NPDES
Water use

Response: This sentence has been clarified to indicate that with respect to downstream NPDES dischargers, the proposed facility would have little impact on water quality. As noted in Section 4.1.4.2.7, the impact of increased concentrations of constituents in the P. H. Glatfelter Company effluent would be attenuated downstream. Thus, as the DEIS states, downstream dischargers should not be affected.

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W-JK-1/28ee

KEYWORDS:
Biodiversity
Codorus Creek

Response: The paragraph was not intended to imply there is no difference between the aquatic community structure upstream and downstream of the P. H. Glatfelter Company outfall. The DEIS merely noted that both sections of the creek have community structures indicating good water quality. For clarification, Section 4.1.5.1 has been expanded to include a more detailed description of the different community structures upstream and downstream of the P. H. Glatfelter Company's discharge.

W-JK-1/28ff

KEYWORDS:
Aluminum
Criteria
Cyanide

Response: Many water quality criteria are not fixed numbers and must be determined using: (1) site-specific hydrologic characteristics or faunal assemblages, (2) bioassay tests tailored to site-specific water characteristics and aquatic communities or (3) available data in the literature. For example, Pennsylvania Water Quality Standards (25 Pa. Code § 93) specify a criterion for aluminum as: "Maximum 0.1 of the 96-hour LC_{50} for representative important species as determined through substantial available literature data or bioassay tests tailored to the ambient quality of the receiving waters."

W-JK-1/28gg

KEYWORDS:
Alternative technologies
Commercialization status

Response: Please see the responses to Comments D-139/17 and W-MK-12/21d, which address this issue.

W-JK-1/28hh

KEYWORDS:
Alternatives analysis
Emission reduction

Response: Please see the response to Comment D-205/17. Since the no-action alternative analysis was generic in nature, it would be speculative to assume that a new generation capacity facility, if constructed, would be either: (1) at the P. H. Glatfelter Company site, or (2) at another steam host site where an existing, circa-1950 industrial steam boiler would be curtailed or decommissioned due to the new facility, thereby causing a reduction in air pollutants. It is the specific synergism between the needs and conditions at the P. H. Glatfelter Company site and the proposed project at the North Codorus site which generates the possibility of net reduction in some air pollutants.

W-JK-1/28ii

KEYWORDS:
Alternatives analysis

Response: As the information presented in the response to Comment D-39/13 shows, it appears more reasonable to assume that two 114-MW CFB boiler units would be constructed by an electric utility company, rather than a single 227-MW circulating fluidized bed (CFB). The statement contained in the EIS is still accurate.

W-JK-1/28jj

KEYWORDS:
Codorus Creek
Temperature
Water quality

Response: Please see the response to Comment D-268/11 for an explanation of why it is reasonable to assume that the proposed facility would lower instream temperature. Furthermore, under the no-action alternative, DOE has no information to believe that P. H. Glatfelter Company's thermal discharges would be reduced or eliminated.

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W-JK-1/28kk

KEYWORDS:
Alternatives analysis
Cooling water

Response: As noted in Table 2.3-1 in the EIS, which is a comparison of the potential impacts among alternatives, 1 mgd would be required for cooling in a gas-fired facility (as compared to approximately 4 mgd for the proposed project). This 1 mgd is based on the use of fresh water, rather than wastewater, for the gas-fired facility.

W-JK-1/28ll

KEYWORDS:
Codorus Creek
Cumulative effects
Criteria
Exemptions
Temperature

Response: Chapter 6, Cumulative Effects, recognizes the collective impacts of point and non-point source pollutants within the Codorus Creek drainage basin. The past and present effects of P. H. Glatfelter Company operations are summarized in Chapter 3 of the EIS, and discussed in greater detail in the biodiversity study *(Environ, 1994a)* and in several water quality studies (see Table 3.1-8 of the EIS for a summary). While the effects of P. H. Glatfelter Company's past and present operations were used to determine potential cumulative effects, the information was not repeated in Chapter 6, because P. H. Glatfelter Company is but one of many sources of pollution affecting Codorus Creek. Table 9-4 (Table of Exceedances of Environmental Regulations & Guidelines) has been created to show the possible variances and exceedances associated with the proposed project and P. H. Glatfelter Company.

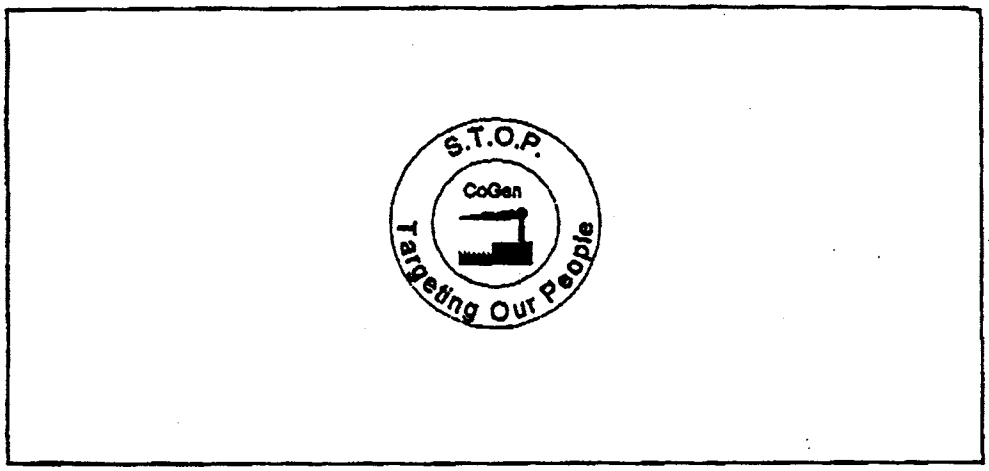
W-JK-1/28mm

KEYWORDS:
Biodiversity
Consumptive effects
Recreation

Response: Chapter 6 of the EIS addresses cumulative effects that are not addressed in Chapter 4. Therefore, regarding water quality issues, this chapter focuses on impacts further downstream where the incremental impact of the proposed project is added to the incremental impacts from other sources. The more direct and significant impacts, which occur near the proposed facility, are addressed in Chapter 4 of the EIS.

It is reasonable to expect that the proposed project (including the Pulp Mill Modernization Project by P. H. Glatfelter Company) would not cause additional impacts on the biota between P. H. Glatfelter Company's discharge point and Indian Rock Dam for the following reasons: (1) The loss of stream flow (~4 cfs or 2.5 mgd) is partially mitigated during conditions of minimum flow, when the ecosystem is most severely stressed, by the SRBC permit-required minimum flow at the mill pond dam and by the need (and ability) of P. H. Glatfelter Company to meet National Pollutant Discharge Elimination System (NPDES) permit requirements, and (2) The P. H. Glatfelter Company Pulp Mill Modernization Project will reduce the loadings of some contaminants to more than offset the concentrating effect of the proposed water consumption (evaporation) by the proposed project's cooling tower.

The need for further improvement in water quality over past conditions and the potential recreational value of Codorus Creek is recognized. DOE believes the activities of the Pennsylvania Department of Environmental Resources (PADER) and other state and Federal regulatory agencies will continue the trend of gradually improving water quality in Codorus Creek.



FAX TRANSMITTAL

DATE: 30 January 1995

TOTAL PAGES: 4 including this cover

TO: Dr. Suellen Van Atta Stephen NOV

FROM: Richard J. Clark

ADDRESS:

PHONE NO.:

FAX #: 304 291 4403

FAX #:

MESSAGE: Supporting documents, nearly all of which are in the Morgantown DOE file follow in the mail.

Regards,

Dick Clark

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COMMENTS SUBMITTED BY STOP (Stop Targeting Our People), Inc.

To

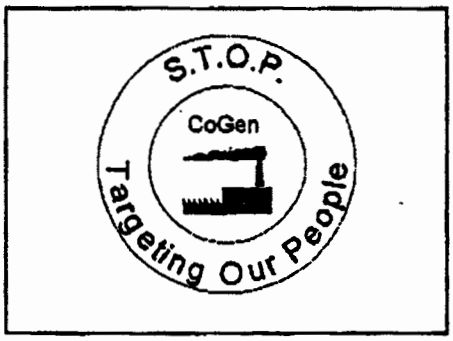
U.S. DEPARTMENT OF ENERGY (DOE)

on the DRAFT ENVIRONMENTAL IMPACT STATEMENT (DOE/EIS-0221)

for the Proposed

York County Energy Partners Cogeneration Facility

York County, Pennsylvania



S.T.O.P.'s Purposes

The purposes shall be to promote a better understanding and appreciation of the life support systems that all living things on the planet Earth require for their continued existence.

Filed with the Commonwealth (Department of State) 12 September 1994

Entity Number: 2598467 Microfilm Number: 09458

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The DOE had originally stated that their decision, with regard to this proposed project, was a binary one; i.e., either they would provide the $75 million of cost-sharing based on the consideration of using a specified technology (atmospheric circulating fluidized-bed combustion) or they would not. In view of the fact that the proposed technology is currently in operation at the "scale-up" capacity it would seem to make their decision a very straight-forward one. We base this statement on the fact that there is currently a unit of the proposed size and technology in operation in France, which DOE has freely admitted to. However, on 15 August 1994 Clark had written Dr. Jan Wachter[1] and he posed the question "has the DOE conducted a search, with regard to this particular technology and this particular scale-up or larger, and as a result of this search can you state unequivocally that there is no other project using this technology of a comparable size or larger in any stage of development anywhere in the World?" Mr. Nelson F. Rekos responded, on Dr. Wachter's behalf, in a letter dated 27 September 1994[2] and he included a summary table covering the World situation (Table 1 of Mr. Rekos' letter). Mr. Rekos made no mention of two 230 MW units scheduled to be installed in Bogatynia, Poland.[3] We think these two units are important because they were sold by a U.S. Corporation and we certainly wonder why that project warranted absolutely no mention in the DRAFT EIS? It seems rather obvious that they did not wish the public to know about them and we view this as a breach of public trust on the part of DOE.

W-RJC-1/30a

W-RJC-1/30b

W-RJC-1/30c

Section 102 (C) of the National Environmental Policy Act calls for a detailed statement on proposals of major Federal actions "significantly affecting the quality of the human environment." This 102 (C) report, now more familiarly known as an "Environmental Impact Statement" requires, among other things, the inclusion of a detailed statement on, "alternatives to the proposed action." The DRAFT

W-RJC-1/30d

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[1] Letter from Richard J. Clark (S.T.O.P.) to Dr. Jan K. Wachter. See copies of supporting documents at the end of this document.

[2] Letter by Dr. Nelson F. Rekos (DOE - METC) to Dr. Richard Clark (S.T.O.P.).

[3] See Gaglia, B.N., Laskawiec, J. and Misztal, Z. 1993. Design of two 230 MWe reheat circulating fluidized bed boilers for Turow Power Station Bogatynia, Poland. Fluidized Bed Combustion - Vol. 1, ASME 1993, pages 17-22.

W-RJC-1/30a

KEYWORDS:
Commercialization status

Response: DOE has proposed to provide cost-shared funding of this project to demonstrate this Foster Wheeler atmospheric circulating fluidized bed (ACFB) technology at utility scale, burning United States bituminous coal. Please see also the response for Comment D-39/13 for more information regarding the need for this project under DOE's Clean Coal Technology Program.

W-RJC-1/30b

Commercialization status

Response: At the time the aforementioned letter was sent, DOE could not confirm if the two units in Poland would be built. Pyropower has since confirmed that these units are planned to be built. Please see also the responses to Comments to D-39/13 and D-73/6, which address this issue.

W-RJC-1/30c

KEYWORDS:
Commercialization status

Response: At the time that the DEIS was written, DOE had no information confirming that the units in Bogatynia, Poland, would be built. Pyropower has since confirmed that these units are planned to be built. The FEIS has been revised (Section 1.3.1) to reflect this newer information. Please see also the responses to Comments D-40/16 and D-42/2.

W-RJC-1/30d

KEYWORDS:
Alternative technologies

Response: DOE's exploration of alternatives for this proposed project is consistent with that of past Clean Coal Technology projects. Please refer to the response to Comment D-37/16 which discusses the consideration of alternative technologies. Also, please see the response to Comment D-137/17 which discusses the economics of electricity generation.

The emissions rates from the proposed York County Energy Partners, L.P. (YCEP) atmospheric fluidized bed combustor (AFBC) project compare favorably with those estimated emissions from a second-generation pressurized fluidized bed combustor (PFBC) recently selected under Round V of the Clean Coal Technology Program.

Environmental Impact Statement DOE/EIS-0221 is incomplete in that it fails to do this. We call your attention to this fact and insist that the DOE meet their responsibilities in doing this. The extent that DOE has failed to do this can be demonstrated by considering two facts; i.e., 1) use of pressurized fluidized-bed combustion would allow additional environmental benefits over the proposed technology; e.g., removal of NOx and 2) it would allow the production of electricity at a cheaper rate.[4] If you examine Table 1,[5] which was compiled from DOE's Programmatic Environmental Impact Statement, for the proposed technology (gray-shaded row) you see that the NRP (NOx Removal Percent) is 60 while that for Pressurized Fluidized-Bed Combustion (row above it) is 70. The 60 percent removal of NOx achievable by using AFCB also reveals how much DOE is willing to allow the proponents to short-change the local residents of the proposed site township, for the DEIS states the control technology that is proposed to be used "would control oxide of nitrogen (NOx) emissions to 0.125 lbs/MMBtu and achieve a 40 percent or greater reduction compared to the potential uncontrolled oxides of nitrogen (NOx) emissions." The second statement, concerning the relative cost of producing electricity by the two technologies, has been compared by Lyons[4] who reported generating costs of $.0585 per kilowatt hour for AFCB and $.0499 per kilowatt hour for PCFB. We find no discussion at all concerning the comparative cost of generation of electricity which is extremely important for Met-Ed ratepayers that are still paying for Unit No. 2 clean-up at the Three-Mile Island generating facility.

(continued)

W-RJC-1/30e

W-RJC-1/30d

W-RJC-1/30f

W-RJC-1/30g

We noted the omission of a letter from Ms. Diane Esher of the Environmental Protection Agency's Region III headquarters to Dr. Suellen A. Van Ooteghem of the Morgantown Energy Technology Center. Ms. Esher was writing as Chief of the Environmental Planning and Assessment Section and the letter is dated 19 October 1993. The letter is regarding scoping comments on the proposed coal-fired cogeneration facility in York County, Pennsylvania. We noted that in the "Agency Coordination

W-RJC-1/30h

[4] Lyons, C. 1993. Current comparison of coal fired technologies to meet today's environmental requirements. Technical Paper.

[5] Based on DOE/EIS0146 Final Programmatic EIS, November 1989.

The following is a comparison of emissions:

Emissions Rates (lbs/MMBtu)

	PFBC Unit (Round V Project)	AFBC Unit (YCEP Project)
Sulfur dioxide (SO_2)	0.30	0.25
Oxides of nitrogen (NO_x)	0.30	0.13
Particulate matter (PM_{10})	0.012	0.011
Carbon monoxide (CO)	0.095	0.15

W-RJC-1/30e

KEYWORDS:
Alternative technologies
Electric utility rates

Response: Please see the response to Comment D-137/17 for more information on the economics of electricity generation. Please see the response to Comment D-37/16 concerning alternative technologies.

W-RJC-1/30f

KEYWORDS:
Air emissions
Oxides of nitrogen

Response: In the Programmatic EIS, in the section describing atmospheric fluidized-bed combustion technology (Section 2.3.2.1), the following statement is made: "With staged combustion, oxides of nitrogen (NO_x) emissions are estimated to be reduced by 60 percent." This percentage represents the maximum theoretical reductions that are believed to be possible using this technology in a staged combustion mode of operation, and not the levels that have necessarily been reduced to practice. For the proposed project, the emissions rate of 0.125 lbs/MMBtu of oxides of nitrogen (NO_x) [which translates to at least a 40 percent reduction in oxides of nitrogen (NO_x) levels] is considered to be best available control technology (BACT) based on data obtained from the BACT/LAER (lowest achievable emission rate) Clearinghouse database. The Pennsylvania Department of Environmental Resources (PADER), through review and issuance of the proposed project's Prevention of Significant Deterioration (PSD) permit, will determine if the oxides of nitrogen (NO_x) emission rate for the proposed project is indicative of using BACT.

Please see also the responses to Comments D-279/14 and W-RJC-1/30d.

Letters" section of the EIS is a letter dated 9 June 1994 written by Dr. Jan K. Wachter and makes reference to Ms. Esher's letter. But we did not find Ms. Esher's letter.[6] It is included here for inclusion in the EIS. We wonder why it was not included in the DRAFT? Was it omitted because it contains some comments that might be thought critical? We found it very constructive. In Ms. Esher's letter General Comments she states "*Review of the estimated emission reductions (e.g., 92% sulfur removal) has raised our concern that these emission reductions appear conservative when considering proven emissions reductions at other cogeneration facilities. We are providing you with several reports (see attachments) which suggest that sulfur, nitrogen dioxide, particulates, mineral matter, and heavy metal emissions could be greatly reduced through the "washing" of the coal before it is burned. By demonstrating the value of using cleaned coal in addition to demonstrating large scale circulating fluidized bed cogeneration technology, this project would go one step further in satisfying the objectives of the Department of Energy's clean coal technology program.*" It should be noted that washed coal is proposed to be used. The DOE also minimized or ignored several of her Specific Comments, specifically under Purpose and Need she suggested the "Assessment of current and future energy needs in the region." This goes to the justification of the project, with regard to the "need" of the electrical energy. The reason the utility would not sign the purchase agreement when approached by York County Energy Partners initially was they had a program before the PUC which would enable them to fill a 200 MW block of capacity that they had projected to need in 1995-1996 through a competitive bidding process (Competitive Procurement Program [CPP]). In rejecting the proponents request (then Air Products) at that time the utility official stated,[7] "We believe we have a commitment of all parties in the proceeding to procure the 200 MW block of capacity through the CPP process", he further stated that "we have determined that it would be best to return your proposal without our review, pending resolution by the Commission of the CPP." Thus, the utility wished to use a competitive process in acquiring

(continued)

W-RJC-1/30i

W-RJC-1/30j

W-RJC-1/30k

[6] Letter by Ms. Diane Esher (Chief, Environmental Planning and Assessment Section, U.S. Environmental Protection Agency, Region III) to Dr. Suellen A. Van Ooteghem (U.S. DOE, Morgantown Energy Technology Center).

[7] Letter from Mr. Harold S. Webber (Met-Ed/GPU) to Mr. Thomas P. Wendahl (Air Products and Chemicals, Inc.).

W-RJC-1/30g

KEYWORDS:
Electric utility rates

Response: Since the purpose of the Federal action is to demonstrate this particular technology, other alternative technologies would be inconsistent with the purpose and need of the Federal action. Consequently, a comparison of the cost of electricity from various types of power production technologies is beyond the scope of this EIS. However, information provided by the Metropolitan Edison Company on the possible effects of the proposed project on short-term electric utility rates is discussed in Section 4.1.12.3 of the FEIS. Please see also the responses to Comments D-37/16 and D-137/17.

W-RJC-1/30h

KEYWORDS:
Omission

Response: Please see the responses to Comments D-70/25 and D-72/3.

W-RJC-1/30i

KEYWORDS:
Air emission
BACT
Coal washing
Emission reductions

Response: Please see the responses to Comments D-70/25 and D-71/13.

W-RJC-1/30j

KEYWORDS:
Energy management
Need for power

Response: DOE analyzed the need for power in the EIS (Section 1.3). In addition, the FEIS contains a more detailed analysis for the need for power in Appendix K. However, it is important to note that the issue of the need for power is relevant primarily to the industrial partner. The need for power on the Metropolitan Edison Company (Met-Ed) system has provided a market for the electrical output of the York County Energy Partners, L.P. (YCEP) project, thus making this proposed project economically viable to the industrial partner. DOE's purpose and need for this project is not to generate power, but rather to demonstrate technology. This difference has been communicated to the EPA both in writing, phone conversations, and during meetings, and has impacted the depth of analysis of this topic in the EIS.

Please see also the response to Comment D-83/5.

W-RJC-1/30k

KEYWORDS:
Need for power

Response: Comment is noted. DOE notes that the Pennsylvania Public Utility Commission ultimately ordered Metropolitan Edison Company (Met-Ed) to purchase the electrical output from the proposed York County Energy Partners, L.P. (YCEP) project.

electricity, presumably to give them the opportunity to provide their ratepayers electricity at a competitive cost, but YCEP petitioned the PUC to order them to enter into the purchase agreement without that benefit and that order was granted. We believe it within the purview of the socioeconomics of the EIS to exam the rate at which electricity would be provided, should this plant be built, versus the rate at which it probably would be obtained via a competitive process. The question is not whether the utility needs electricity but rather how much, when and whether this proposed action is apt to be able to provide it more cheaply than through the purchase put through the CPP. Ms. Esher further suggests that "Alternative sites considered" be addressed. The treatment of this topic contrasts with a comment entitled "Sufficiency Review Comments" (on the Draft Environmental Information Volume for the cogeneration facility then sited at West Manchester) dated November 1992 and accompanying a cover letter by Dr. Suellen A. Van Ooteghem dated 24 December 1992. This document carried the following critique concerning discussion of alternate sites, "the discussion of alternatives is very superficial, especially with regard to alternative site selection. Sufficient detail must be provided to support the statement in the EIV that an 'exhaustive' site selection process was conducted." The EIV for the project sited for North Codorus Township states, "Alternative sites in the Metropolitan-Edison region were comparatively assessed by York County Energy Partners, L.P. according to a review of screening criteria.[8] On September 10, 1994 Clark (C/O S.T.O.P.) sent Dr. Wachter a letter[9] and enclosed the formal Withdrawal of Application by YCEP for the West Manchester Township site. Please note the extent that YCEP had gone to in order to try to force the project into West Manchester Township. Can just any site, real or hypothetical, serve as the alternative site? Also under "Alternative Analysis" was the suggestion that "Description of all reasonable design and technology alternatives which could result in further avoidance of impacts, especially regarding reductions in air emissions" be included.

W-RJC-1/301

W-RJC-1/30m

[8] Final Environmental Information Volume for the Proposed York County Energy Partners Cogeneration Facility prepared by ENSR Consulting and Engineering (Document Number 0040-010-901).

[9] Letter to Dr. Jan K. Wachter by Richard J. Clark.

W-RJC-1/30l

Response: Please see the responses to Comments D-137/17 and D-137/21.

KEYWORDS:
Electric utility rates
Need for power

W-RJC-1/30m

Response: Prior to selection of the North Codorus site, York County Energy Partners, L.P. (YCEP) conducted an extensive site search over a 1½ year period. The site search spanned Metropolitan Edison Company's (Met-Ed) service territory. Selection criteria and the background for the North Codorus selection are described in Section 2.2.1.1 of the EIS. DOE believes that the information contained in the EIS satisfies the Department's initial request for information related to YCEP's site selection criteria and review process.

KEYWORDS:
Alternative sites
Site selection

Under the Clean Coal Technology (CCT) Program, DOE is not the responsible party for selecting the project site, but DOE does evaluate the initial suitability of a site proposed by the Industrial Participant from an environmental perspective during the negotiation process.

In both the West Manchester and North Codorus site moves, YCEP proposed only one location to DOE. In each case, DOE found the site sufficiently acceptable to proceed with preparation of an EIS. For further information on alternative site locations, please see the responses to Comments D-121/14, D-285/8, and J-177/14. Please see also the response to Comment D-37/16, which addresses the consideration of alternative technologies. Please note that DOE's exploration of alternatives for this project is consistent with that which has been conducted for other CCT and research and development (R&D) projects.

In a letter dated 30 June 1994 Clark wrote the Regional Director of the Environmental Protection Agency posing the question--"Because the DOE is the lead agency on this project, what does that do to EPA's authority over matters involving the NEPA process?" The response can be seen in Mr. Peter Kostmayer's letter dated 20 August 1994.[10] There are many shortcomings in the Draft EIS including inaccuracies and unsubstantiated statements. These, however, are of a subjective nature.

W-RJC-1/30n

Objectively it can be seen that the DEIS fails to make comparisons with alternative technologies, hence, should be deemed incomplete. Following the production of a supplement that will address these NEPA mandated comparisons as well as a discussion of the economics of the local electrical generation versus other means of Met-Ed acquiring electricity, this supplement should then be made available to those that received the DEIS. Following that and the conduction of a hearing to address matters included in that supplement, the Draft EIS will be complete and the process can then move forward. While this document is a DRAFT document, it is abundantly clear that DOE is not meeting its reponsibilities in the NEPA process.

W-RJC-1/30o

[10] See Question #1 and Response:

W-RJC-1/30n

KEYWORDS:
NEPA
Quality

Response: For the reader's benefit, Mr. Kostmayer's response (in a letter dated August 30, 1994, from Kostmayer to Clark) to the question posed by Dr. Clark was "Nothing." DOE takes comments received from the Environmental Protection Agency (EPA) very seriously and has responded to their issues and comments through meetings, correspondence, responses to their comments contained in the FEIS, and revisions to the FEIS (especially in Section 4.1.2.11, Health Risk Assessments). Please see also the responses to Comments PHK-1/31a through PHK-1/31k for DOE's resolution of EPA's comments.

W-RJC-1/30o

KEYWORDS:
Alternative technologies
Energy economics
Supplemental EIS

Response: Please see the response to Comment D-37/16, which also addresses the consideration of alternative technologies.

Please see also the responses to Comments D-83/5, D-119/11, and D-137/17, which address the analysis of the economics of electrical generation for Metropolitan Edison Company.

January 30, 1995

Dr. Suellen Van Ooteghem
Environmental Project Manager
U. S. Department of Energy
Morgantown Energy Technology Center (METC)
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3610 Collins Ferry Road
Morgantown, WV 26507-0880

Dear Dr. Van Ooteghem:

I appreciate the time that yourself and the Department of Energy spent in York, Pennsylvania for the Scoping Meeting and also the public meetings held in December of 1994 and in January of 1995. Hopefully you all came with an open mind concerning the possible approval of your cost shared funding of seventy-five million dollars towards the proposed building of a cogeneration facility in North Codorus Township, Pennsylvania. I am absolutely and totally opposed to this unnecessary use of public funds for such a project unworthy of my tax dollars. You are certainly aware that the CFB technology to be used in this plant has already been proven not only in the United States but also in other parts of the world. Why on earth would you still be considering spending taxpayers hard earned dollars on an already proven technology? I have followed this project since YCEP initially tried to build the plant in West Manchester Township. When they (YCEP) saw they had an uphill fight there they chose to go to North Codorus Township which had no zoning. Easy pickings they thought. I truly believe that the site they have chosen has to be the worst of all possible sites in the state, let alone York County. It would be right next to one of the largest known polluters in the State of Pennsylvania and situated on admittedly the most polluted creek in the county, and possibly in the state, that is Codorus Creek.

W-WJG-1/30a1

W-WJG-1/30a2

I have read most of the draft environmental impact study for the proposed plan and it does not even begin to discuss the horrific environmental catastrophes that would result to the land, air, water and citizens health in this already polluted area. I cannot believe that the Department of Energy people could spend any time at the proposed site without realizing the environmental degradation that has already been caused by the P H Glatfelter Company and still consider the possibility of becoming a willing partner in the further degradation of this area. From everything I have read and most of what I have heard at

W-WJG-1/30a1 ***Response:*** Please see the response to Comment D-39/13.

KEYWORDS:
Commercialization status
Government funds

WJG-1/30a2 ***Response:*** Please see the response to Comment W-RJC-1/30m.

KEYWORDS:
Site selection

the public hearings, the findings in the draft EIS have been consistently refuted by experts in the various areas of contention whether the subject be the amount of various pollutants that would be added to the air, the types and amount of pollution added to the Codorus Creek or the affect of contaminants already added to the polluted air . . . all have convincingly been proven to be greater than the numbers in the draft EIS or in the statements made by YCEP or P H Glatfelter. Hopefully you and the other Department of Energy people at the hearings were listening to the pleas of these people and the interested citizens of York County.

The reason for this letter is to relay my thoughts on all the harmful impacts that this plant would have on all living things, with a focus on one item that seems to be somewhat over looked by most people and that is the dramatic impact that the increase in traffic, especially truck traffic, will have on the immediate area of the proposed plant. I would like to offer my credentials in making the observations and statements that will follow. My trucking experience goes back thirty years. In that time I have driven a truck, I have served as a dispatcher, I have operated many terminals, and I have been the Vice President of our Southern Division which includes all the Middle-Atlantic, South and part of the Southwest for 12 years. At the present time I am the Executive Vice President of Administration for the second largest trucking company based in the State of Maryland. We operate over 600 trucks throughout the United States. This thirty years experience has allowed me to achieve a keen insight on trucks and the problems that they can create on the roadways especially in already congested areas. The traffic impact study and its addendum to the study are woefully lacking in any real attempt to consider the impact to the increased truck traffic to the admittedly unacceptable traffic levels that already exist in the area.

The U.S. Department of Energy's draft environmental impact statement for the proposed facility only contains 14 pages that address the transportation and traffic problems. This is a dreadfully inadequate review of what certainly is to be a major concern and a major problem for the people that utilize the highways in the area of the proposed plant. First of all, the study utilized 1992 traffic count data and also utilized population numbers from studies done around the same time. If the plant gets the approval to be built, it will not be operating for another two or three years. This will make the traffic study data and population study data obsolete by that time. The traffic impact study generated by YCEP uses figures that contend that the population of North Codorus Township and the Townships of Heidelburg, Jackson, Codorus and Springfield increase about 2.9% per year. This study did not take into account the Borough of Hanover whose population utilizes Route 116 on a daily basis. The latest census figures show the Hanover Area in a ten mile radius with a population of almost 51,000. Even though the census figures show a very slight decrease in the Borough the population is

W-WJG-1/30b

W-WJG-1/30c1

W-WJG-1/30b

KEYWORDS:
Transportation

Response: As explained in Section 4.1.8, the Traffic Impact Study conducted by Herbert, Roland, and Grubic used 1993 existing traffic count data to project 1998 traffic volumes. Using a 2.9-percent growth rate, these projections allow substantial room for error, considering that the affected area's actual annual growth rate from 1980 to 1990 was 1.2 percent and that the Pennsylvania Department of Transportation (PennDOT)-approved growth rate is 1.75 percent. Consequently, by accounting for reasonably expected growth, the conservatism built in to the Traffic Impact Study helps to ensure that projected traffic volumes are reasonable.

W-WJG-1/30c1

KEYWORDS:
Transportation

Response: The study included several municipalities adjacent to the proposed site that are representative of the vicinity. Although somewhat paradoxical at first, omission of the Borough of Hanover from the Traffic Impact Study actually *increases* traffic volume projections for 1998. Because Hanover had a decreasing population, if its negative growth rate had been factored into the regional 20-year average growth rate, the multiplier would have been slightly less than 2.9 percent. Hanover's citizens daily use of Route 116 was accounted for because their vehicles were registered in the 1993 traffic counts that served as the basis for the 1998 projections.

increasing rapidly in York and Adams Counties. This area is the fastest growing area in the state. I wonder why that was not in the study.

In the draft environmental impact statement and also in the traffic study addendum traffic operations are described in terms of level of service. LOS-A is the best condition where LOS-F represents a condition deemed unacceptable. The best LOS in the entire area of the proposed site is a D with most of the LOS being either E or F. These levels already indicate either unacceptable or very nearly unacceptable conditions at all intersections near the proposed site utilizing what I consider very conservative figures by the engineering companies that did the study. The number of additional vehicles that would be generated both during and after construction of the site would make an already unacceptable level of service dangerous. Having lived in the North Codorus Township for the past 18 years, I have noticed a dramatic increase in vehicular traffic, both autos and trucks during that time. On Page 618, Section 6.52 in the draft EIS you use figures from a study that indicate an increase of vehicle miles of travel of 27.3% between 1983 and 1989. With the increase in population in the surrounding area the daily vehicle miles of travel from 1990 through 1995 should approach twice that percentage of increase. The figures used in the draft EIS talk about the addition of 125 vehicles per day added to the already crowded Route 116. Approximately 70 of these vehicles will be trucks. According to figures all seventy of the trucks will arrive and depart during the eight hour work day which includes the two peak times of the day. These figures do not include such items as the 40 to 70 coal trucks a day that would be delivering coal in a coal supply emergency. It also does not include the many trips that would be made into and out of the plant by vendors, by visitors, and by sales people. These figures are the numbers that are used only after the plant is up an operating. The number of vehicles that would be added to the routes during construction are much, much worse. According to Section 4.8 on Page 4120 of the draft EIS the figure of 712 vehicles accessing the project site each and every day is staggering to say the least. The amount of traffic and congestion that occurs every day at the peak hours in the Borough of Spring Grove is at the present time extremely frustrating for those that have to endure it every day. This includes a large number of school buses and children making their way from the various schools within the borough. When you add to this confusion all the trucks, tractors and trailers that are either going through town, that are delivering to P H Glatfelter, that are picking up from P H Glatfelter and the many trips that are made by trucks from the staging yard to the loading docks of the P H Gladfelter Company it becomes a nightmare. To add the number of vehicles to the roadways not only during the operation of the proposed facility but especially during the construction period would cause an impossible gridlock in the Borough of Spring Grove on a daily basis. Both the traffic study and the addendum to the traffic study virtually ignore the problems that would be created by the vast increase in truck traffic that would occur during the construction and the operating phase of the proposed plan. I am sure that this was done for a reason. To have discussed the problems

W-WJG-1/30c2

W-WJG-1/30c3

W-WJG-1/30c4

W-WJG-1/30c5

W-WJG-1/30c6

WJG-1/30c2

KEYWORDS:
Transportation

Response: The Institute of Transportation Engineers (ITE) considers level of service (LOS) D to be an acceptable intersection level of operation. Of the nine intersection approaches analyzed for the proposed project, two approaches currently operate at LOS E, while one approach operates at LOS F, during the A.M. peak hour. Under future traffic conditions with the proposed project, these three approaches would remain the only intersection approaches to operate at an LOS worse than D. The LOS is an indicator of traffic volume to capacity for a given intersection and does not relate to road safety.

The traffic analysis methodology, assumptions, findings, and recommendations, and the DEIS have been reviewed by the Pennsylvania Department of Transportation. No deficiencies in the traffic study were identified in their review.

WJG-1/30c3

KEYWORDS:
Transportation

Response: The reference to increased vehicle miles traveled (VMT) in the cumulative impact section of the DEIS was provided to show that the transportation area of influence has grown with increased population growth in the region. There is no indication that VMT has increased another 27 percent in the past four years. As noted in Section 6.5.2 of the EIS, growth is likely to slow somewhat in the region.

WJG-1/30c4

KEYWORDS:
Transportation

Response: Table 4.1-38 shows that the traffic analysis factored in the potential use of coal trucks during plant emergency operations. This assumption added an additional 5 trucks entering and exiting the plant during both the A.M. and P.M. peak periods.

WJG-1/30c5

KEYWORDS:
Transportation

Response: Activities at the proposed facility during operations would be consistent with an industrial/power plant setting. Visitors, sales persons, and vendors would not be permitted to freely enter the property without prior arrangements or consent. Vehicular traffic generated from these non-operational activities is considered minimal.

WJG-1/30c6

KEYWORDS:
Construction
Transportation

Response: Construction traffic estimates were based on conservative assumptions related to a peak construction work force. The peak period represents approximately five of the thirty months of total construction. It is assumed that workers would access the site during the A.M. peak (7-9 A.M.) and exit the site during the P.M. peak (4-6 P.M.). As suggested in the traffic study *(ENSR 1994)*, mitigation measures can include busing workers to the site, providing van pools, installing temporary signalization, or providing traffic control by a certified person. Truck traffic has been analyzed using guidelines established by the Institute of Transportation Engineers, and the Transportation Research Board. The results of this study have been provided to both North Codorus Township and the Pennsylvania Department of Transportation. The traffic analysis found that the intersection of York Road (PA Route 116) and the Roundwood Facility Access Drive, currently unsignalized, could become congested during shift changes. During construction, primary A.M. peak hour delays would occur for northbound left turns into the site, while P.M. peak hour delays would occur onsite exiting the

and hazardous situations which would have been shown if a complete study would have been done by the engineers would have certainly created a very negative outlook. Items such as the slowness of a truck to start and stop, the length of a tractor and trailer, the debris and material that could possible fall off a tractor and trailer, the added pollution emanating from a tractor and trailer, the time that it takes a tractor and trailer to make a turn, the weight of a tractor and trailer on the roadways in the surrounding area along with numerous other possibilities would make an already hazardous situation impossible and exceedingly dangerous for those that travel the surrounding highways. The excessive congestion that would occur because of not only the automobile traffic but specifically because of the addition of the problems and hazards created by the extra truck traffic would force many people including myself to try to find other ways around the burrough. This would have the effect of placing many people on narrow farm lanes and surrounding roads that they are not familiar with and that are much more narrow that Route 116 or the major highways they presently use. Winter time or wet periods would dramatically increase the risk of accidents which would include injury and death. The same situation would also cause many of the truckers that presently use Route 116 that are passing through the town to also attempt to utilize the back roads around the borough. Needless to say this would increase the risk of accidents to an even greater extent. These farm lanes and country roads that surround Spring Grove throughout North Codorus Township are traveled on a daily basis by many school buses. These school buses not only pick up and deliver children in the morning and in the evening but because of half day classes for many of the younger students they also pick up and discharge during the middle of the day. Many of these bus stops are in secluded areas that are not visible to either oncoming or rear end traffic. The addition of the traffic trying to get around the intolerable bottleneck in Spring Grove could make these bus stops very hazardous. A loaded truck weighing close to 80,000 pounds takes much longer to stop than an automobile. To my knowledge there are no restrictions on truck traffic on any of the country roads in the North Codorus Township. I believe that the Department of Energy needs to force YCEP and its engineers to do a complete study of the transportation and traffic risks that are truly involved with the construction and operation of this proposed facility. The present study barely even scratches the surface of the problems that could occur if the plant was allowed to be built. It is no doubt an obvious attempt to skirt the real issues involved with the increased traffic along Route 116 and the many intersections close to the proposed construction site. The fact that Route 116 will remain a two lane highway on both the North and South sides of the construction site any additional lanes or signaling would make the area even more congested and confusing than it presently is. The addition of any signaling devices at either the entrance to the roundwood facility or at the intersection of Route 116, Jefferson Road and Lehman Road would only reduce speed, increase travel time, increase traffic interruption, decrease freedom to maneuver and do absolutely nothing for the safety and driving comfort for the people that live and work in the area.

W-WJG-1/30c7

W-WJG-1/30c8

W-WJG-1/30c9

W-WJG-1/30c10

W-WJG-1/30c11

construction site. This intersection was investigated for the possible installation of a traffic signal. The traffic volumes, however, did not meet the traffic signal criteria as set forth in Publication No. 201, "Engineering and Traffic Studies," published by the Pennsylvania Department of Transportation.

The intersection of York Road (PA Route 116), Jefferson Road (PA 516), and Lehman Road (SR 3078) would continue to operate at unacceptable levels during the construction phase unless recommendations made in the traffic analysis are implemented. These include the installation of traffic signals and the construction of additional lanes on the north, south, and westbound approaches.

The intersection of York Road (PA 16) and Colonial Valley Road (SR 3053) would show a degradation in overall operation at the peak of construction. Busing or van pooling of construction workers could mitigate this impact.

See also the response to Comment W-WJG-1/30c11.

WJG-1/30c7

KEYWORDS:
Hazard assessment
Transportation

Response: There is no indication that existing conditions are "hazardous." Vehicle speeds, road carrying capacity, and vehicle turning radii were considered in the traffic analysis. The Federal Highway Administration's Highway Capacity Software, computer model was used to estimate the traffic carrying capabilities of particular roadways over a range of operational conditions. The model considers such factors as speed, vehicle size, and signalization. Pollution emitted from vehicular traffic was considered and factored into the overall impact assessment on air quality (see Section 4.1.2 of the EIS).

WJG-1/30c8

KEYWORDS:
Alternate routes
Transportation

Response: Some utilization of alternate routes may occur as the result of increased traffic on primary routes. However, despite some delays associated with construction traffic, PA 116 would continue to serve as the primary route from Hanover to U.S. 30 and the city of York. The traffic analysis did not indicate that the proposed project would result in the overloading of adjacent roadways. Primary impacts (increased traffic volumes) would occur on PA Route 116.

An accident analysis concluded that operation of the proposed facility would result in an increased accident risk of approximately 2 accidents per year (see Section 4.1.8 of the EIS). Although snow, ice, and rain are factors sometimes associated with traffic accidents, there is no indication that these conditions, combined with increased traffic from the proposed facility, would dramatically increase the risk of accidents. The safety of children riding on school buses over farm and rural roads, is best ensured by proper signage, vehicles operating at posted speed limits, and adherence to state laws requiring vehicles to not pass school buses that are loading or unloading passengers. The forecasted traffic volumes associated with the Cogeneration Facility do not indicate an adverse impact to area traffic patterns other than those noted at existing intersections on PA Route 116 (see response to Comment W-WJG-1/30c6).

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WJG-1/30c9

KEYWORDS:
Transportation

Response: Please see also the responses to Comments W-WJG-1/30c8 and W-WJG-1/30c11. It is the responsibility of the North Codorus Township Board of Supervisors and the Pennsylvania Department of Transportation to investigate and, if necessary, impose truck traffic restrictions on area roads and bridges. The traffic analysis did not identify the need, based on increased traffic volumes, to warrant rural road or bridge restrictions.

WJG-1/30c10

KEYWORDS:
Transportation

Response: PA Route 116 would remain a primary route between Hanover and U.S. Route 30. The Pennsylvania Department of Transportation has designated PA 116 as a Priority Commercial Network (PCN) that provides primary access to economic centers in Pennsylvania and to surrounding states. The criteria for inclusion as a PCN is a through route with a minimum of 500 heavy trucks per day using the roadway. Average daily truck traffic, as determined through vehicle counts taken as part of the EIS, indicate that there are between 650 and 700 trucks that use PA 116 north and south of Spring Grove on a daily basis. Continued regional growth may require road widening, increased signalization, and other road improvements in the future. The Pennsylvania Department of Transportation examines traffic volumes associated with proposed developments in order to ascertain the need for signalization and other improvements, and has reviewed the findings of the traffic study associated with the proposed project. Please see the response to Comment WJG-1/30c11.

WJG-1/30c11

KEYWORDS:
Transportation

Response: The intersection of York Road (PA Route 116) and the Roundwood Facility Access Drive, currently unsignalized, was investigated for the possible installation of a traffic signal. The traffic volumes, however, did not meet the traffic signal warrants as set forth in Publication No. 201, "Engineering and Traffic Studies" published by the Pennsylvania Department of Transportation.

The intersection of York Road (PA Route 116), Jefferson Road (PA 516), and Lehman Road (SR 3078), currently operates at below acceptable levels and has poor geometric design features. This intersection was investigated for the possible installation of a traffic signal. The traffic study proposed the installation of traffic signals and additional lanes on the north, south, and westbound approaches in conjunction with traffic signal installation. The traffic volumes did not initially meet the traffic signal warrants as set forth in Publication No. 201, "Engineering and Traffic Studies" published by the Pennsylvania Department of Transportation, however, implementation of the proposed improvements would bring the operation of the intersection to acceptable levels. York County Energy Partners, L.P. (YCEP) has submitted to PennDOT a highway occupancy permit application, and the recommendation of signalization has been approved by PennDOT (see letter from Hoffman to Van Ooteghem dated January 3, 1995, which is contained in Appendix E of the FEIS).

The installation of traffic signals along PA Route 116 would likely result in increased travel times in the region, but would also result in slower speeds, safer operating conditions, and easier access to primary routes from driveways and lower capacity roads. Continued development adjacent to the Route 116 corridor would contribute to increased traffic and travel times as well. Industrial land uses, such

There is no doubt that YCEP and others that want to see this plant built have only one goal in mind and that is money. It includes the seventy-five million dollars that they expect to get from the Department of Energy and also the proceeds they would get from selling the electricity to Met-Ed. These people have no concern whatsoever for the health and welfare for the people of York County.

I also have no doubt that the people that have taken their time to speak out at the various hearing against the construction of the proposed plant and those that have taken the time to write the many letters to the Department of Energy are seriously concerned about the health and welfare of the surrounding community. None of the people who have spoken out against the plant have done so because of personal or financial gain. They have done so because they know that there is no good reason for the plant to be built now or anytime in the future. The technology to be utilized in the plant is admittedly an already proven technology in both the United States and the World. Met-Ed who because PUC regulations would be forced to purchase the electricity from the plant have already publicly said that they do not now nor in the foreseeable future need the electricity. As a matter of fact Met-Ed has said they would be able to purchase the electric cheaper from other sources than from the YCEP Cogeneration facility. I have only touched upon some of the many many reasons why this plant should not be built anywhere in the United States but especially in the very fragile environment of North Codorus Township. I sincerely hope that the Department of Energy can readily see the uselessness of the building of this plant and the waste of taxpayers money that it would entail and in doing so would not approve the funding for the construction of the plant.

W-WJG-1/30d

W-WJG-1/30e

Respectfully yours,

William J. Gallagher

as the proposed project, are among the lowest traffic generating uses, as opposed to residential and commercial uses which generate high traffic volumes over a greater length of the day.

On October 6, 1993, the North Codorus Township Board of Supervisors passed a motion to approve the preliminary P. H. Glatfelter Cogeneration Subdivision and Land Development plan, conditioned on, among other items, the following transportation improvements (subject to approval and regulation by the Pennsylvania Department of Transportation).

1. Construct off-street parking for tractor trailer storage at the Roundwood Facility.
2. Construct off-street parking for construction personnel.
3. Install permanent signalization at the intersection of Lehman Road, State Route 516, and State Route 116. (The Pennsylvania Department of Transportation indicated in correspondence dated January 3, 1995, that the permit to construct this signalization would be approved. Please see Appendix E.)
4. Install temporary traffic signalization at the Roundwood Facility entrance and at the intersection of Colonial Valley Road and State Route 116.
5. Mark off lefthand turn lanes on Lehman Road and on PA Route 116.

W-WJG-1/30d

Response: Please see the response to Comment D-39/13, which addresses this issue.

KEYWORDS:
Commercialization status

W-WJG-1/30e

Response: Please refer to the responses to Comments D-83/5 and D-137/17. DOE Headquarters assessment of the need for power on the Metropolitan Edison Company (Met-Ed) system is included as Appendix K to this FEIS. Also, please see Comments W-AMS-1/27a-e to obtain the Met-Ed perspective on its need for power and the relative economics of the proposed project.

KEYWORDS:
Energy economics
Met-Ed
Need for power

7160 Roundtop Lane
Wrightsville, PA 17368
January 27, 1995

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Department of Energy
Morgantown Energy Tachnology Center (METC)
P.O. Box 880
3610 Collins Ferry Road
Morgantown, West Virginia 26507-0880

RE: York County Enery Partners Draft EIS

Dear Dr. Van Ooteghem:

I am a resident of York County, Pennsylvania and attended your recent hearings regarding the proposed Cogen plant to be located in North Codorus Township. I have read your Draft Environmental Impact Statement for this proposed Cogen plant and would like you to address several concerns I have with regard to the Air Quality Issue. Specifically, I would recommend the following changes regarding the data and text dealing with the composition and amount of radionuclide emissions.

1) page 2-10, Table 2.1-1: In the interest of full disclosure this Table, which summarizes emissions from the Cogen plant, should also include the total amount of radionuclide emissions (in units of curies/year). These emissions are a major concern of the public and should not be omitted from any summary list of emissions since it suggests they are not significant. **W-WHE-1/27a**

2) page 4-22, Table 4.1-2: Since the new Cogen plant will burn about eight times more coal than the Glatfelter No. 4 Furnace, this table should show whether there will be any increases in the emission of radionuclides (expressed as curies/year), if the Glatfelter No. 4 Furnace is replaced by the Cogen plant. These are primary data and should be clearly summarized in Table 4.1-2, since these data could serve as a direct indications of whether any of these hazardous emissions will increase as a result of the eight-fold increase in tonnage of coal burned by the Cogen plant. **W-WHE-1/27b**

3) page 4-38: The estimated radionuclide emission rates from the YCEP facility shown in Table 4.1-12 are inaccurate, since they are based only on radionuclides associated with untrapped flyash particles and do not include the radionuclides discharged from the burner stack as gases. No quantitative data are presented in the Weston, Inc. Aug. 1994 report (Ref. Weston, 1994b) to support the assumption that these gaseous radionuclides do not significantly contribute to the radionuclide emissions (see page 4-54). These data should be provided. **W-WHE-1/27c**

The calculations for the curies/year data in Table 4.1-12 are missing the factor which converts curies/hour into curies/year. Therefore, the data are inaccurate and produce estimates of radionuclide emission which are too low. The rates must be increased by a factor of 8.76×10^3 (24 hours/day x 365 days/year = 8.76×10^3 hours/year).

4) page 4-55: DOE-METC should wait until after EPA completes its radionuclide emissions study in 1995 before any final decision on the YCEP Cogen Project is made, since EPA may set new rules which prohibit the use of the Cogen plant. **W-WHE-1/27d**

5) page 4-63: The air model analysis using CAP-88 is not accurate, since the input data from Table 4.1-12 are inaccurate (see (3) above). **W-WHE-1/27e**

W-WHE-1/27a

KEYWORDS:
Air emissions
Radionuclides

Response: Both because of the need for an EIS to analyze and discuss all relevant issues, and because of public concern about the potential for impact from radionuclide emissions, Section 4.1.2.8 of the FEIS discusses radionuclide emissions from the proposed York County Energy Partners, L.P. (YCEP) project and quantifies the emission estimates. A list of radionuclide emissions in millicuries per year (mCi/year) is shown in Table 4.1-12. In estimating the overall radionuclide emissions resulting from the proposed YCEP project, no credit has been taken for the curtailment of the P. H. Glatfelter Company's Power Boiler No. 4. This curtailment would result in the maximum of 720 hours of concurrent operation per year and the reduction of the consumption of approximately 90,000 tons/yr of coal—coal that would be burned with older, less efficient fly ash reduction. (Fly ash is the primary source of radionuclides that result from coal burning.) Thus, the estimates are conservative, in that these represent the maximum amount of radionuclide emissions that could occur from the proposed YCEP project during possible simultaneous operation of the proposed YCEP facility and P. H. Glatfelter Company's Power Boiler No. 4 during 720 hours per year.

Section 4.1.2.11 discusses the analysis of the potential for human health effects from such radionuclide emissions. The total cancer risk to the affected population (three in a million) was assessed to be within the range of the generally accepted cancer risk. That is, the risk due to radionuclide emissions was not thought to be significant.

W-WHE-1/27b

KEYWORDS:
Emission differentials
Radionuclides

Response: Please see the response to Comment W-WHE-1/27a.

W-WHE-1/27c

KEYWORDS:
Air emissions
Gases
Radionuclides
Radon

Response: Table 4.1-12 has been corrected in the FEIS, and additional data has been included. Radon-220 and radon-222 are listed [radon (Rn) is the only radioactive gas that is potentially emitted] in Table 4.1-12a.

W-WHE-1/27d

KEYWORDS:
Radionuclides
Regulations

Response: The Environmental Protection Agency (EPA) report (expected in late 1995) referenced in Section 4.1.2.11 of the EIS in a report to the Congress regarding hazardous air pollutants from the combustion of fossil fuels. In informal telephone conversations with the EPA, DOE has determined that the pending report will not substantively change the EPA's 1984 position with respect to radionuclide emissions from coal-fired power plants. Coal, as it is removed from the ground, has

6) page 4-66: The CAP-88 risk summary in Table 4.1-22 is inaccurate, since the input data from Table 4.1-12 are inaccurate (see (3) above). W-WHE-1/27f

7) The DOE-METC should obtain its own data on the estimated emissions from the proposed Cogen plant and not rely on data obtained by YCEP, since they have a vested interest in the outcome of this Cogen project and should not necessarily be expected to produce an unbiased report. Since 75 million dollars of taxpayers' money are at stake in this project, the public deserves a more objective evaluation of the air quality data. W-WHE-1/27g

8) DOE-METC should follow the guideline of the January 14, 1993 memo from the Council on Environmental Quality and not allow any further increase in radionuclide emissions into the air of York County or at least wait until the EPA study of this problem is completed so that the health hazards can be more adequately evaluated. W-WHE-1/27h

8) page 2-73: Discussion of the 227 MW natural gas-fired combined-cycle facility should state that this type of facility, unlike coal-fired cogen plants, not only does not produce ash, but it also does not produce any radionuclide emissions. Table 2.2-3 should include this information. W-WHE-1/27i

9) page 4-17: If carbon monoxide emissions are to be controlled simply by "good combustion control practices", then the qualifications of the operators of the controls should be spelled out in detail and emergency procedures should be in place in case the operators fail to control the combustion process properly and lethal levels of carbon monoxide are released into the air of nearby communities. These emergency procedures should be clearly defined in the EIS to assure public safety. W-WHE-1/27j

State Representative Todd Platts and others have provided adequate documentation that the cogeneration combustion equipment being used in this demonstration project represents technology widely used in the early 1980s which is now obsolete. Clearly, at a time when taxpayers are demanding cuts in Federal spending, there is no excuse for spending public funds on this unnecessary project. The only reasonable alternative is for YCEP to provide their own private capital to build a state-of-the-art gas-fired cogeneration plant that will accomplish their goals without polluting the air in our county which already is laboring under a considerable air pollution burden. Therefore, I strongly oppose this project, as do the vast majority of other residents in York County. W-WHE-1/27k

Thank you for considering these matters. I look forward to your response.

Sincerely,

Warren H. Evans

Warren H. Evans, Ph.D.

P.S. Please note my scientific credentials are as follows:
B.A., Chemistry, Princeton, 1956
M.A., Medical Science, Harvard, 1957
Ph.D., Biochemistry, Harvard 1960
Leukemia research, National Cancer Institute, 1960-1990

cc: Diana Esher, Chief
Environmental Planning and Assessment Section
U.S. EPA, Region III

Peter Kostmayer
Regional Administrator
U.S. EPA, Region III

a significant radionuclide content which, if uncontrolled, would lead to stack emission levels which would require further emission limits. However, modern power plants are already required to control particulate emissions to a high degree (through electrostatic precipitators, fabric filter baghouses, wet scrubbers, etc.). These controls are precisely the types of controls which the EPA would consider effective in controlling radionuclide emissions from coal-fired utilities. Therefore, the EPA considers that radionuclide emissions from coal-fired power plants are already subject to the controls necessary to adequately protect human health. This current position accurately reflects the position first taken by the EPA in 1984 and reaffirmed in 1989.

Unlike criteria pollutants, which are regulated by the National Ambient Air Quality Standards (NAAQS), radionuclides are covered under the Hazardous Air Pollutants (HAPs) section of the Clean Air Act. HAPs are regulated "at the source" in the form of industry-specific emissions standards. If in the future EPA should, through its formal regulatory process, promulgate a NESHAP (New Emission Standard for Hazardous Air Pollutants) for radionuclide emissions from coal-fired industrial and utility boilers, existing sources—including those under construction—would probably be required to comply with the new standard within 90 days following the effective date of the new standards in accordance with 42 U.S.C Section 7412(c)(1)(B)(i).

W-WHE-1/27e

KEYWORDS:
Modeling
Radionuclides

Response: The Clean Air Assessment Package-1988 (CAP-88) modeling study has been redone using both the corrected emissions data for radionuclides and the emissions data obtained from an independent DOE verification of the radionuclide emissions from the proposed York County Energy Partners, L.P. (YCEP) facility. The FEIS reflects these corrected results (See Table 4.1-22 in Section 4.1.2.11).

W-WHE-1/27f

KEYWORDS:
Modeling
Radionuclides

Response: Please see the response to Comment W-WHE-1/27e.

W-WHE-1/27g

KEYWORDS:
Government funds
Oversight
Review

Response: Under the Clean Coal Technology Program, the industrial partner collects environmental data (normally through the use of a contractor) for use by DOE in developing an EIS. The information collected also is used quite extensively for regulatory purposes. There are numerous checks and balances that DOE adopts to ensure that the data collected is valid. Please see also the responses to Comments D-125/12, D-282/13, and D-287/16.

W-WHE-1/27h

KEYWORDS:
Air emissions
Radionuclides
Regulations

Response: DOE must objectively consider the needs of all interested parties in completing its environmental review process. Lifetime excess cancer risks due to exposure to radionuclide emissions from the proposed facility would be approximately 3 in 1 million. This level is in the acceptable range recommended by the Environmental Protection Agency (EPA). No unacceptable affects to human health due to radionuclide emissions would be expected. With respect to

Roy E. Denmark, Jr.
NEPA/309 Coordinator
U.S. EPA, Region III

State Representative Todd Platts

U.S. Representative William Goodling

George Trout
Chairman, York County Commissioners

radionuclide emissions from coal-fired power plants, the position of the EPA, as stated in its Final Rule on New Emission Standards for Hazardous Air Pollutants: Radionuclides (54 FR 51654), is that ". . . current levels of radionuclide emissions from coal-fired boilers represent a level of risk that protects the public health with an ample margin of safety." Moreover, in telephone conversations with the EPA, DOE has determined that the pending report will not substantively change the EPA's position with respect to radionuclide emissions from coal-fired power plants. Therefore, DOE does not consider the lack of a finalized report from EPA to be adequate justification for not completing its environmental review.

Please see also the response to Comment W-WHE-1/27a.

W-WHE-1/27i

Response: The suggested information has been included in the FEIS (See Table 2.3-1 in Section 2.3).

KEYWORDS:
Air emissions
Alternatives analysis
Radionuclides

W-WHE-1/27j

Response: A discussion on training requirements is provided in the response to Comment D-298/8. Emergency procedures would be described in the Plant Safety Manual that would serve as a guide for providing a safe environment for employees and the community. This manual would be developed before the plant becomes operational, but it is not yet written. As stated in Section 4.1.6 of the EIS, the proposed facility would be subject to Occupational Safety and Health Administration (OSHA) General Industry Standards (29 CFR Part 1910). It was also noted that the injury rate for Air Products employees has been well below the average reported for all Chemical Manufacturers Association (CMA) members in each of the last 6 years (1989-1994).

KEYWORDS:
Carbon monoxide
Safety
Training

As stated in Section 4.1.2.11 of the EIS, the maximum levels of carbon monoxide (CO) for a 1-hr period that would released to the community at ground level would be 97 $\mu g/m^3$. This level is considered to pose little health risk to the community. As a comparison, the 1-hr standard for carbon monoxide (CO) is 40,000 $\mu g/m^3$.

W-WHE-1/27k

Response: Please see the responses to Comments D-39/13 and D-100/9 for information related to CFB boiler technology.

KEYWORDS:
Alternative technologies
Commercialization status
Government funds

If the proposed project (based on government cost-shared funding) does not proceed (e.g., due to an unfavorable Record of Decision), it is difficult to predict the alternatives (e.g., gas-fired cogeneration plant), if any, that York County Energy Partners, L.P. (YCEP) would continue to pursue. YCEP has repeatedly stated that without government funds, the proposed project (or any alternative) would not be feasible at the proposed site due to economic and timing considerations. The P. H. Glatfelter Company has stated that its Power Boiler No. 4 would indefinitely remain on-line in the absence of the proposed project operating at the North Codorus Township site.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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JAN 30 1995

Dr. Suellen Van Ootegham
Department of Energy
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26507-0880

RE: York County Energy Partners (YCEP) Cogeneration Project, York County, Pennsylvania.

Dear Dr. Van.Ooteghem:

In accordance with the requirements of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, EPA has reviewed the Draft Environmental Impact Statement (DEIS) for the above referenced project. EPA has rated the DEIS, "EC-2" (Environmental Concerns- Insufficient Information) based on our concern that the air emissions and solid waste stream could be further reduced and based on deficiencies in the Health Assessment conducted for this project. A copy of EPA's rating system is attached.

Reductions in the proposed YCEP coal-fired cogeneration facility's emissions are feasible using new commercially available control technology. These reductions can be achieved by the following: W-PHK-1/31a

1) use of an inert material (e.g., sand) to stabilize the fluidized bed operation;
2) use of Selective Catalytic Reduction (SCR) technology for the control of nitrogen oxides (NO_x);
3) use of ammonia scrubbing to reduce sulfur dioxide (SO_2) emissions;
4) use of more efficient fabric filters to reduce emissions of particulate matter under 10 microns in size (PM_{10}).

These changes would also result in substantial reductions in the quantities of solid waste produced by the facility. Incorporation of these recommended emission control technologies in the YCEP project will substantially improve its expected environmental performance. W-PHK-1/31b

EPA also recommends that the Health Assessment for the proposed project be revised in light of recent studies which have demonstrated strong associations between mortality and fine-particulate air pollution. The 1992 Health Assessment does not provide adequate treatment of the potential health effects from particulate emissions, their toxic components, and acid aerosols. W-PHK-1/31c

W-PHK-1/31a

KEYWORDS:
Alternative technologies
BACT
Emission reduction
Fluidization
Oxides of nitrogen
Particles
Sulfur dioxide

Response: (1) The use of inert material such as sand to stabilize fluidized bed operations is not technically feasible for the circulating fluidized bed (CFB) boiler operation. The fundamental design of the CFB boiler is based on effective sulfur dioxide (SO_2) control in the combustion chamber using limestone injection. The use of sand instead of limestone in the CFB boiler operation in order to accommodate the installation of an alternative back-end sulfur dioxide (SO_2) control system (e.g., ammonia scrubbing) results in a fundamental design change to the CFB boiler operation and would have negative operational impacts, such as reduced performance within the heat exchanger (due to the much heavier specific gravity of the sand). In addition, up to 200,000 tons/yr of solid waste would be created due to the injection of sand. Any methods to compensate for the heavier specific gravity would increase the erosion index (by increasing velocity). Foster Wheeler Energy Corporation in a letter to Mr. David Wolfson, York County Energy Partners, L.P. (YCEP), dated February 15, 1995, has provided information in support of the above conclusions.

(2) YCEP has evaluated the use of Selective Catalytic Reduction (SCR) technology for control of oxides of nitrogen as part of their Best Available Control Technology (BACT) analysis in their Prevention of Significant Deterioration (PSD) permit application. The use of SCR technology is not economically or technically feasible for application on a CFB boiler. The high-dust, alkaline concentration in the flue gas inherent in CFB system, even following a hot cyclone separator, renders a hot-side, high-dust SCR arrangement technically infeasible for a CFB under the current stage of technology development. The SCR catalyst is known to be blinded by calcium sulfate ($CaSO_4$) which is abundant in CFB ash as a result of limestone-based sulfur dioxide (SO_2) control. Employing a hot-side, low-dust SCR would also require a hot-side electrostatic precipitator for particle removal located upstream from the SCR catalyst, thereby precluding the baghouse. A relatively low-temperature [138°C (280°F)] baghouse is an integral part of the CFB boiler system since it performs two important emission control functions in addition to removing particulate matter: it provides additional opportunity for sulfur dioxide (SO_2) in the flue gas to react with unused sorbent that is present in the filter cake on the bags, and it acts as a mercury (Hg)-removal device whereby trace quantities of mercury (Hg) vapor in the flue gas can condense or adsorb onto solid ash/sorbent/sulfate particles in a relatively cool environment where gas velocity is relatively low. In the case of the YCEP CFB boiler design, the temperature of the flue gas after discharge from the baghouse would be below the lower limit of the reaction temperature range [299°C to 449°C (570°F to 840°F)] of the SCR catalyst.

(3) The General Electric (GE) ammonia scrubbing process is a very interesting, novel process for removing sulfur dioxide (SO_2) from a flue gas stream, as shown during a presentation that GE representatives made to the Environmental Protection Agency (EPA), the Pennsylvania Department of Environmental Resources (PADER), and DOE on February 17, 1995, at EPA Region 3 Offices in Philadelphia, PA.

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However, there are several issues associated with the application of this technology to the proposed circulating fluidized bed combustor (CFBC) facility: (a) It is not economical to utilize the ammonia scrubbing process as a polishing step on the "tail-end" of the proposed project. The cost of adding this technology to the YCEP facility would result in additional construction costs of $45 to 59 million and additional operating costs of approximately $4 million each year; (b) If the ammonia scrubbing process were to be utilized as the only sulfur cleanup technology to be employed (rather than the use of in-bed sulfur capture using limestone), an inert material (e.g., sand or ash) would be required to be added to the reactor bed in order to achieve proper fluidization and heat transfer characteristics. There are major technical feasibility and economic issues related to this concept of using another (inert) material in the fluidizing bed. In addition, this concept goes against the core of CFB technology, which is the achievement of sulfur control using the addition of limestone to the fluidizing bed; (c) The ammonia scrubbing process has never been demonstrated on a coal-derived flue gas stream. There are potential problems related to the effects of chloride released from coal and fine particle carryover from the de-mister incorporated into this process; and (d) There is some concern with the shipment and amounts of anhydrous or liquid ammonia that would be required at the North Codorus Township site for use in the ammonia scrubbing process due to the potentially lethal impacts that could result from a shipment accident or spill/uncontrolled release in the populated area of Spring Grove, PA.

(4) The current outlet particulate emission (PM_{10}) guarantee for the proposed YCEP project at 0.011 pounds lbs/MMBtu is the lowest emission guarantee ever offered by Research-Cottrell Co. (RC) utilizing proven fabric filter bag materials and construction. To repeatedly achieve this guarantee level, RC has selected the use of heavyweight (18 ounces per square yard) Ryton Felt bags which have been proven through a number of installations to be highly efficient and long lasting for this type of application. Although the use of more efficient fabrics such as P-84 or PTFE membranes in theory could reduce the amount of PM_{10} emissions from the fabric system, RC is not prepared to guarantee such low emissions levels due to lack of sufficient full scale operating installations with such fabrics with actual measured emissions levels evaluated. In RC's experience, PTFE membranes have produced mixed results in the few combustion installations for which they have utilized. Problems encountered included high operating pressure drops, cracking of the membrane, and frequent replacement. RC has stated that other fabrics, such as P-84 fabrics, tend to be sensitive to the operating conditions from the boiler and must be carefully applied. This fabric, in the form of a composite P-84/Ryton fabric, holds promise for the future; however, few operating systems have installed this particular filter design, especially at the scale required for this proposed project. In summary, the current emission level guarantee of 0.011 lbs/MMBtu represents one of the lowest emission level guarantees ever provided for a fabric filter system for the proposed application. This fabric is a field-proven, state-of-the-art material whose performance can be guaranteed by the vendor.

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W-PHK-1/31b

KEYWORDS:
Pollution prevention
Solid wastes

Response: The incorporation of the recommended emission control technologies on a CFB boiler is not feasible due to several technical reasons as outlined in the response to Comment W-PHK-1/31a.

It is expected that approximately 200,000 tons/yr (270,000 tons/yr as a maximum theoretical value) of ash by-product would be generated by the proposed project. This by-product would be used as backfill material for Harriman Coal Corporation's existing anthracite surface mine area in Schuylkill County, PA. The impact from disposal of this ash byproduct (which has the capability of neutralizing acid mine drainage) would be positive and long term due to its beneficial use in mine reclamation. The application of calcium-based ash by-product for mine reclamation has been encouraged by the Bureau of Mining and Reclamation.

W-PHK-1/31c

KEYWORDS:
Health effects
Particles

Response: Section 4.1.2.11 of the FEIS (Health Risk Assessments) was extensively revised to incorporate the results of recent epidemiological studies that have shown strong and consistent associations between mortality and fine-particulate air pollution (especially for six United States cities). It should be recognized, however, that there is a lack of scientific or epidemiologic knowledge showing similar associations between health effects and specific toxic components (e.g., polyaromatic hydrocarbons or acid aerosols) contained in or comprising fine particulates.

However, the inclusion and extrapolation of the results of recent epidemiologic studies in Section 4.1.2.11 have not changed the main conclusions of the health risk assessment. Due to the curtailment of P. H. Glatfelter Company's Power Boiler No. 4, particle (and sulfate) levels are still expected to be reduced during 11 months of the year when compared to the current baseline (and, thus, should not contribute to adverse health impacts). During the 720 hours of concurrent operation in which there could be an increase in particle concentrations when compared to the baseline, the highest modeled 24-hr particulate matter less than 10 microns in diameter (PM_{10}) would be 1.1 $\mu g/m^3$. This concentration is below the levels (10 $\mu g/m^3$ to 375 $\mu g/m^3$) that have been associated with physiological or health effects as shown in recent medical reports provided by the York County medical societies and the Environmental Protection Agency (EPA) that were reviewed for incorporation into the FEIS. In terms of the relevance of the 1.1 $\mu g/m^3$ concentration with respect to the recent epidemiologic studies that were provided by EPA to DOE for review, the associations with particle loadings and mortality (i.e., a 6- to 17-percent rise in death rates for each 100 $\mu g/m^3$ increase in PM_{10}) were based on mean particle loadings ranging from 28 to 111 $\mu g/m^3$ in six United States cities. It is difficult to extrapolate the results of these various epidemiologic studies down to 1.1 $\mu g/m^3$ increments due to the lack of sensitivity and validity of these associations at these small "delta" levels.

The attached technical comments identify commercial technologies that would allow significant reductions in air emissions. EPA will provide a final review of the BACT issues upon review of the Pennsylvania plan approval (PSD permit). To resolve these issues in a timely manner, we would like to establish a meeting with the Department of Energy, the YCEP technical staff, the Pennsylvania Department of Environmental Resources (PADER), and selective pollution control technology representatives to discuss means to reduce air emissions from the proposed facility. Please contact William G. Browne of my staff at 215-597-9858, and John Slade, Chief, Permits Division at PADER to establish an acceptable meeting date.

EPA raised additional concerns about this project during our January 3, 1995 meeting with representatives from the Department of Energy and York County Energy Partners, L.P. These concerns were in regard to the possibility of threatened and endangered species occurring in the project area, reported fogging and icing events, cooling tower emission impacts, wastewater discharge characteristics, and the depletion of area coal reserves. Subsequent concerns were also raised regarding the description of the no-action alternative.

These additional concerns have all been resolved based on information provided to us by the Department of Energy. Since the additional information provided to us concerning some of these issues was either absent or unclear in the Draft EIS, we recommend that the Final EIS include this information to clarify the issues. The Final EIS should include: recent letters from Pennsylvania resource agencies regarding threatened and endangered species, a re-evaluation of the assumptions used in the model chosen for fog/ice analysis, discussion of existing fog/ice events, statistics on the impacts to state and national coal reserves, and the rationale for not including associated air emission reductions in the no-action alternative.

W-PHK-1/31d
W-PHK-1/31e
W-PHK-1/31f
W-PHK-1/31g

We appreciate the many opportunities we have had to discuss this project with the Department of Energy and YCEP. We look forward to resolving the remaining issues with this project.

Sincerely,

Peter H. Kostmayer
Regional Administrator

Attachments

W-PHK-1/31d

KEYWORDS:
Biodiversity
Endangered species
Omission

Response: The FEIS now contains a comprehensive compilation of coordination letters received from Federal and state agencies, including the letters received on threatened and endangered species.

W-PHK-1/31e

KEYWORDS:
Assumptions
Fog and ice
Modeling

Response: Please see the response to Comment D-155/11.

W-PHK-1/31f

KEYWORDS:
Coal reserves
Statistics

Response: The statistics on impacts of the proposed project on state and national coal reserves is contained in Section 2.1.3 of the EIS. Please see also the response to Comment D-139/24.

W-PHK-1/31g

KEYWORDS:
Alternatives analysis
Assumptions
Boiler No. 4
Emission reductions

Response: The rationale for not including associated emissions reductions in the no-action alternative has been included in Section 2.2.4, No-Action Alternative, in the FEIS. The primary reason that air emission reductions were not incorporated into the analysis of impacts from the no-action alternative was that the specific course of action that Metropolitan Edison Company (Met-Ed) would pursue in order to either generate or purchase the 227-megawatt (MW) electricity that was associated with the proposed action was highly speculative. Since the air emissions reductions were specific to the synergistic operation of the proposed project with P. H. Glatfelter Company's paper mill operations at the Spring Grove site (i.e., the curtailment of the P. H. Glatfelter Company's Power Boiler No. 4 due to receipt of steam from the proposed project), these air emission reductions would not be "transferable" to the generic site at a different location than that which was analyzed under the no-action alternative.

Please see also the response to Comment J-89/7.

York County Energy Partners Cogeneration Facility
Draft Environmental Impact Statement[1]
Technical Comments

William G. Browne, Environmental Engineer
U.S. EPA Region III

Chapter 4. Environmental Consequences - analyzes the potential impacts to human and environmental resources that would be expected to result from construction and operation of the proposed York County Energy Partners (YCEP) Cogeneration Facility at the North Cordorus Township site. Health risk assessments have been made of potential air emissions from the proposed project to persons in the affected communities.

A health assessment study[2] conducted when the project was initially proposed to be located in West Manchester Township was issued in 1992. his study provides a detailed discussion of the potential effects to human health of expected emissions, including particulate matter (PM_{10}), based on a review of the scientific literature.

Chronic human health risks from the acid gases SO_2 and NOx from the boiler stack emissions were assessed. The findings from human epidemiology studies on sulfur dioxide (SO_2) effects were summarized[3] as follows:

> "Excess mortality has been clearly associated with historic air pollution episodes, where sulfur dioxide (SO_2) exposures have been ~ 3,100 $\mu g/m^3$ with correspondingly high concentrations of acid aerosols. Modern epidemiologic studies concentrate on respiratory illness rather than excess mortality. Communities with mean (annual) aerosol concentrations of 105-325 $\mu g/m^3$ usually experience more asthma, bronchitis, and upper respiratory infections than communities with 18-21 $\mu g/m^3$ exposures. In a study conducted in Pennsylvania, community increases in respiratory disease were not detected in mean annual exposures of 92 $\mu g/m^3$."

The finding from human epidemiology studies on oxides of nitrogen (NOx) effects was summarized[4] as follows:

> "Respiratory symptoms were not observed with outdoor exposures of 12-80 $\mu g/m^3$ in a Chestnut Ridge, PA study; a California 7th Day Adventist study did not correlate any symptoms with NOx exposure. An indoor air quality study related to gas stove use indicated an excess of infection at NOx levels of 31-216 $\mu g/m^3$; however, many other studies did not correlate increased respiratory symptoms with gas stove use. Others believed that results from indoor exposure to NOx levels from gas stoves is difficult to extrapolate to outdoor environments."

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The findings of research studies on particulate emissions was reported[5] as follows:

> "Particulate matter (PM_{10}) is not considered to be a toxic substance, per se. Therefore, the EPA has not published any chronic toxicity values for particulate matter. There is uncertainty concerning the physiologically active component of particulate emissions. Acid aerosols (measured as hydrogen ion concentrations [H^+], sulfuric acid [H_2SO_4], or sulfate [SO_4] may be the most important. Most of the research studies conducted on health effects due to particle exposure have dealt primarily with sulfuric acid (H_2SO_4) exposures."

Health risk assessments for particulate matter (PM_{10}) and acid aerosol were summarized[6] as follows:

> "Particulate matter (PM_{10}) would increase background concentration by 0.0059 $\mu g/m^3$ according to the Ducatman study. Associated aerosol increase would be less than 0.035 $\mu g/m^3$. These concentrations would be far below any measured or modelled level that resulted in an adverse health impact found in studies. Particulate concentrations would be more than 300 times below the level at which health effects have been attributed (Ducatman, 1992)."

W-PHK-1/31h

The health assessment study[2] associated with the proposed YCEP project is seriously flawed. Recent studies[7-15] have reported associations between particulate air pollution and daily mortality rates in certain U.S. cities. Mortality was most strongly associated with air pollution with fine particulates, including sulfates. Although the effects of other unmeasured risk factors cannot be excluded with ce tainty, it was concluded that fine-particulate air pollution, or a more complex pollution mixture associated with fine particulate matter, contributes to excess mortality in certain U.S. cities.

Dr. Joel Schwartz, EPA Headquarters-Washington, DC, has estimated[8] that as many as 60,000 U.S. residents per year may die from breathing particulates at or below legally allowed levels. Table 1 summarizes the data from Philadelphia, Detroit, Steubenville, St. Louis, Kingston, TN and Utah County, UT. The New York Times review[16] cites that little is spent on particles that harm mostly young, elderly and those with asthma and calls for a redirection of air pollution control funds. Fine particulate pollution has also been associated with mortality rate in England[17], France[18] and Beijing, China.[19]

A downward revision in the particulate ambient air quality standard is under consideration.[20] The U.S. District Court for the District of Arizona has ruled in a suit filed by the American Lung Association that the EPA must finish its review of the adequacy of the air quality standard for particulate matter by January 31, 1997.[21]

W-PHK-1/31h

Response: Please see the response to Comment W-PHK-1/31c.

KEYWORDS:
Health effects
Mortality
Particles

The recent studies cited in the EPA letter have been incorporated into the FEIS for analysis purposes. The incorporation of the information has not significantly changed the findings within the health risk assessment section of the FEIS (Section 4.1.2.11).

Coal-fired power plants generate more than half of the electricity in the United States, combining with oil-fired power plants, they generate about 60% of electricity in the U.S. Coal- and oil-fired power plants are the largest anthropogenic sources of the acidic deposition precursor, SO_2; the second largest sources of NOx; the major sources of fine particles, and the greenhouse gas CO_2 in the atmosphere.

Particles emitted from power plants and other high temperature sources are typically <2 microns (μm) in diameter, and can be efficiently deposited in the lungs where they are not efficiently removed. In addition, fine particles often carry components known to be toxic or mutagenic.[22]

Atmospheric monitoring and modelling across Maryland by the University of Maryland[22] identified secondary sulfate (mostly from power plants) as the dominant source of aerosol mass at all sites in spring and summer. The mass of SO_2 emitted from typical plants is so enormous relative to that of primary particles, that secondary sulfate and associated NH_4 completely overwhelm that of primary particles, whenever as little as 5% of the SO_2 is converted to sulfate.[22]

With regard to acid deposition, both dry and wet, species to be included are H_2SO_4, HNO_3, SO_2 and NH_4HSO_4. It is recognized that NOx and VOC emissions are precursors to ozone/photochemical smog formation. Significant regional atmospheric pollution reductions are needed in SO_2, NOx, PM_{10} and VOC emissions.

W-PHK-1/31i

Reductions in the proposed YCEP coal-fired cogeneration facility's emissions are feasible using new commercially available control technology. With regard to CFB boiler practice, Foster Wheeler[23] and others[24] have described using inert material such as sand for the bed media when a sorbent like limestone is not used. Stabilizing the fluidized bed operation with an inert material provides several substantial environmental benefits.

W-PHK-1/31j

Without calcium compounds present in the flue gas from the CFB boiler, NOx emissions can be reduced to the maximum degree using SCR, and ammonia scrubbing will allow SO_2 emissions reductions of 98%. PM_{10} emissions can be substantially lowered using more efficient fabric filters, such as gore-tex, P84 polyimide, etc., in a baghouse located between the SCR unit and the NH_3 absorber.

W-PHK-1/31k

Ammonia scrubbing of the flue gas generates an ammonium sulfate byproduct which has substantial commercial value. Allowing for the byproduct value, the General Electric economic analysis for a 250 MW plant burning 2% S coal shows ammonia scrubbing to be more cost effective than the use of limestone. An additional advantage of NH_3 scrubbing is that the quantity of solid waste is substantially reduced. The coal ash from CFB boiler operation using an inert bed material would be available

W-PHK-1/31i

KEYWORDS:
BACT
Emission reduction
Fluidization

Response: Foster Wheeler Energy Corporation (FWEC) has stated in a letter to Mr. David C. Wolfson dated February 15, 1995: "Inert materials have been used to augment Fluid Bed Boilers whenever the quantity or quality of the limestone combined with the fuel sulfur is inadequate to provide a stable environment for combustion. Bubbling Bed Boilers often use an inert material such as sand to stabilize their bed. However, Circulating Fluidized Bed (CFB) Boilers are based upon a different operational philosophy. To the best of our knowledge, there are only two or three of FWEC's competitors' CFBs using an inert material on an intermittent basis to augment their needs. FWEC is not aware of any supplier which has experience firing 100 percent sand as an inert material. In general, FWEC would not recommend any owner operate a CFB using 100 percent sand in lieu of limestone."

Please see also the response to Comment W-PHK-1/31a for more information.

W-PHK-1/31j

KEYWORDS:
Emission reduction
Oxides of nitrogen
Particles
Sulfur dioxide

Response: Please see the response to Comment W-PHK-1/31a. Also, it should be noted that the only major facility being constructed that would utilize this ammonia scrubbing technology is a synfuels plant in North Dakota. The air permit for the North Dakota synfuels facility is set at 92 percent, based on the facility using a 4.5-percent sulfur content fuel. As a comparison, the air permit application for the proposed York County Energy Partners, L.P. (YCEP) plant is based on a similar 92- percent sulfur dioxide (SO_2) reduction; however, the sulfur content of the design coal is 2.0 percent.

W-PHK-1/31k

KEYWORDS:
Ammonia scrubbing
Pollution prevention
Solid wastes

Response: With use of this ammonia-scrubbing technology on circulating fluidized bed combustor (CFBC) technology, York County Energy Partners, L.P. (YCEP) projects that additional construction costs would be $45-59 million and additional operating costs would be $4 million per year.

Please see the responses to Comments W-PHK-1/31a and W-PHK-1/31b.

(continued)

for local use in road construction, etc.

Incorporation of these recommended emission control technologies in the YCEP project will substantially improve the expected environmental performance of the project.

Table 1.

Particulate Air Pollution and Daily Mortality PM_{10} standard 150 $\mu g/m^3$, 24 hour 50 $\mu g/m^3$, annual							
Site	Period (years)	Total Days	Daily Mortality Range, deaths/day	Gravimetric Data	Range ($\mu g/m^3$)	Mean ($\mu g/m^3$)	Increased Mortality per 100 $\mu g/m^3$ Increase
Philadelphia, PA	1973-1980	2922	35-64	TSP	37-132	77.2	7%
Detroit, MI	1973-1982	3650	39-68	TSP*	46-137	87	6%
Steubenville, OH**	1974-1984	4018	1-5	TSP	36-209	111	4%
St. Louis, MO	1985-1986	365	31-81	PM_{10}	1-97	27.6	16%
Kingston, TN	1985-1986	365	5-29	PM_{10}	4-67	30.0	17%
Utah County, UT	1985-1989	1736	0-12	PM_{10}	1-365	50	16%

* Daily TSP predicted from concurrent measurements of TSP and airport visibility from every sixth day sampling for 10 years to fit a predictive model for TSP.

** Steubenville Standard Metropolitan Statistical Area includes Steubenville, the remainder of Jefferson Co. OH, and Brooke and Hancock Counties, WV.

PM_{10} in American cities is ~50-60% of TSP.

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3. DEIS - Table 4.1-17 Summary of sulfur dioxide (SO_2) effects, p.4-57.

4. DEIS - Table 4.1-19 Summary of oxides of nitrogen (NOx) effects, p. 4-60.

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6. DEIS - p. 4-163.

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20. Friedlander, S.K. and Lippmann, M. "Revising the Particulate Ambient Air Quality Standard" Environmental Science & Technology 28, 148A-150A. (1994).

21. "Group Forces EPA to Review its Standard for Particulate Matter" Chemical and Engineering News, October 17, 1994 p. 38.

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23. Abdulally, I.F. and Libal, A. "CFB Boiler Meets Pollution Standards, Cuts Operating Costs," Power Engineering, August 1992, pp. 35-37.

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TOTAL P.10

SUMMARY OF RATING DEFINITIONS AND FOLLOW UP ACTION*

Environmental Impact of the Action

LO--Lack of Objections
The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC--Environmental Concerns
The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO--Environmental Objections
The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU--Environmentally Unsatisfactory
The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1--Adequate
The EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2--Insufficient Information
The draft EIS does not contain sufficient information for the EPA fully assess the environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3--Inadequate
EPA does not believe that draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640 Policy and Procedures for the Review of the Federal Actions Impacting the Environment.

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Robin Sigworth
Rockery Road • Old Forge Heights
Spring Grove, PA 17362

January 27, 1995

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Dept. of Energy
Morgantown Energy Technology Center (METC)
P.O. Box 880 • 3610 Collins Ferry Road
Morgantown, West Virginia 26507-0880

Dr. Van Ooteghem:

I am writing concerning the proposed York County Energy Partners Cogeneration Facility in Spring Grove, PA. after attending two scoping meetings and numerous town meetings, I still have many unanswered questions. First, I am alarmed by the vagueness of the DOE's literature and responses to questions. There are far too many uses of words such as "slightly", "minor", "some", "may", etc. A project of this magnitude, with such far-reaching ramifications, deserves language that is clear, not euphemistic.

Contradictions abound as well, only adding to the confusion. Those for the plant say one thing, those against, another. Who do I believe? It seems the proponents of the cogen all have something to gain — namely money from its construction. Whereas the opponents are only concerned for the well-being of their community. If you could answer the following questions, perhaps it would help me to make an informed decision.

- AIR QUALITY & CLIMATE TESTING.
  Where were these tests conducted? I've read reports that claim they were based on data gathered from Harrisburg, PA. How can information from an area 40 miles from Spring Grove be accurate or even applicable to Spring Grove? I've already been driving through Spring Grove when the town is enveloped in a dense fog, only to reach the outskirts and realize that it is a clear day everywhere else and that the "fog" was steam from the paper mill. Won't this type of "weather" only increase if the proposed co-gen is built? If so, won't this create hazardous driving conditions? W-RS-1/27a

- YORK COUNTY'S NEED FOR POWER.
  Is it true that Met-Ed would prefer to purchase their power on the open market (i.e. at more competitive rates), than be forced to buy from YCEP? W-RS-1/27b

- WATER.
  It sounds like the proposed plant will use tremendous amounts of water. How will this effect the Codorus Creek? W-RS-1/27c

- HEALTH EFFECTS.
  Have there been any long-range studies done on the health effects from a coal burning facility like the proposed plant for Spring Grove? If so, what were the results and where was it conducted? If not, why? The health aspect of this project are a crucial part of the puzzle. W-RS-1/27d

W-RS-1/27a

Response: Please see the response to Comment D-104/9.

KEYWORDS:
Fog
Meteorological data

W-RS-1/27b

Response: It would be inappropriate for DOE to speculate on Metropolitan Edison Company's (Met-Ed) preferences concerning power supply options. However, Met-Ed has communicated to DOE that it could purchase lower-cost power during the short-term.

KEYWORDS:
Energy management
Met-Ed

W-RS-1/27c

Response: As stated in Section 4.1.4.2.2 (Water Supply and Capacity Issues) of the EIS, the proposed York County Energy Partners, L.P. (YCEP) facility would obtain the required water for its operation from three existing sources: P. H. Glatfelter Company's wastewater treatment system, P. H. Glatfelter Company's boiler feedwater and condensate system, and the Spring Grove Water Co. No direct groundwater or surface water withdrawals would be made by YCEP during normal operating conditions. Back-up supplies would be directly withdrawn from the mill pond. Section 4.1.4.2.7 (Effects on Codorus Creek) of the EIS describes expected quantitative effects from an increase in consumptive use. Model results indicate that the greatest effect from increased consumptive use would be downstream of P. H. Glatfelter Company's discharge, which would, on the average, be reduced 4.9 percent for normal years, and 9.6 percent for low-flow years. However, this impact is expected to be attenuated downstream. At the York gage, Environmental Resources Management (ERM) estimated that the decrease in flow would be 1.7 percent for normal years and 3.7 percent for low-flow years. Little additional impact to the aquatic ecosystems is expected from any change in Codorus Creek flows.

KEYWORDS:
Codorus Creek
Consumptive effects
Water use

W-RS-1/27d

Response: Long-term effects (i.e., those due to operation of the proposed facility over its expected operational life of 25 years) are assessed in Section 4.1.2.11 of the EIS. The human health risk assessment conducted for the proposed project assessed the impacts to human health due to continuous exposure to emissions over the operational life of the facility. The results of that study indicated that the proposed facility would not have an adverse impact on human health as measured by carcinogenic and noncarcinogenic risk values.

KEYWORDS:
Health effects

Long-range studies for the proposed technology to be demonstrated have not been conducted due to the lack of existing similar facilities at the proposed scale. However, the Electric Power Research Institute (EPRI) *(Lamarre, 1995)* has conducted an extensive risk assessment of over 500 fossil-fueled power plants. The results of this study are summarized in Section 4.1.2.11 of the FEIS.

• ADEQUATE RESEARCH.
This project was first proposed to site in Spring Grove in June 1993. It's only been 1 1/2 years. Again, for a project this large, that seems like an inadequate time for proper study of the impact this project could have. Also, I understand this plant was first slated for construction in Tallahassee, Florida in 1991, then in York, Pennsylvania in 1992. Why was it rejected from both these communities?

W-RS-1/27e

York County is already home to many larger industrial polluters whose effects are unknown. I can't understand how the DOE could even consider locating another heavy industry right in our area — it's an insult. I recognize the needs for jobs and for energy, but can't we think ahead? Let's look at all the possible effects — the good and the bad— that this proposed coal-burning plant could cause 10-20 years from now. Let's not act hastily and leave our children another costly environmental problem to clean up.

I welcome your comments and answers to my questions.

Sincerely,

Robin Sigworth

W-RS-1/27e

KEYWORDS:
Schedule
Site change

Response: There were various reasons why the proposed project was moved from the Tallahassee, FL, and West Manchester Township sites. These are outlined in Section 1.4 [National Environmental Policy Act (NEPA) Strategy] of the EIS. Reasons why the project was moved from Tallahassee, FL, site included economic and environmental issues; the move from West Manchester Township to North Codorus Township was based in part on receiving increased emissions reductions, decreasing fresh water consumption amounts, and zoning issues.

DOE policy requires the completion of the NEPA process (i.e., issuance of Record of Decision) within 15 months, where feasible, after issuance of the Notice of Intent (NOI) to prepare an EIS. The NOI for the proposed project at the North Codorus site was published at the end of July, 1993. The 15 months elapsed on October 31, 1994. DOE was not able to meet its general schedule goals due to time allocation required to resolve the public scoping and hearing comments obtained for this proposed project.

OVERALL POLLUTION REDUCTION????

P.H. Glatfelter #4 boiler- actual 1993 criteria pollutant emissions vs. YCEP Cogen- permitted criteria pollutant values according to the Jan. 1994 PSD application

POLLUTANT	PSD January 1994	#4 boiler 1993	TOTAL
SO_2	2,891	3,588.4	-697.4
NOx	1,437	1,113	324
CO	1,726	28.4	1,697.6
VOC	48	3.7	44.3
PM-10	127	136.7	-9.7
TOTALS	6,229	4,870.2	1,358.8

There will be a net gain of 1,358.8 Tons/year of pollutants overall. Only 2 pollutants will decrease for a total of 707.1 Tons/year (see negative numbers). These figures assume total shut down of boiler #4 (only a curtailment has been promised). In July of 1994 to comply with RACT regulations, Glatfelter's boiler #4 was retrofitted with a low NOx burner and separate overfire air. No revised emissions figures for NOx are available at this time. These figures represent, therefore, the very best case senario for YCEP.

W-RJC-1/27

27 Jan 95
To: Dr. Guillermo Ostchega
From: Dick Clark
Re: material requested - attached is the one item that is not in the DOE files - so I presume that is what is needed
Regards

W-RJC-1/27

Response: Please see the responses to Comments D-34/1, D-35/8, and D-36/7.

KEYWORDS:
Air emission reduction
Boiler No. 4
Emission differential
Oxides of nitrogen
RACT

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

January 31, 1995

Jan K. Wachter
Environment, Safety and Health Program
Support Division
Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, WV 26507-0880

RE: ER 93-2386-133-J,K & L
Jackson/North Codorus/West Manchester Townships, York County
U.S. Department of Energy: York County Energy Partners Cogeneration Facility, Draft Environmental Impact Statement

Dear Ms. Wachter:

The Bureau for Historic Preservation (the State Historic Preservation Office) has reviewed the above named project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

The Bureau has reviewed the Draft EIS for the proposed York Energy Partners Cogeneration Facility. We are unable to comment on the effect of this project on historic resources at this time, as a full identification of historic resources in or near the project area has not been undertaken. To date, only previously identified or evaluated properties have been considered by the Department of Energy (DOE), which does not fulfill a federal agency's responsibilities for identification of resources. W-KC-1/31a

Therefore, a Pennsylvania Historic Resource Survey Form, for all properties constructed prior to 1945, must be completed for all properties in or near the project area viewshed. This viewshed should be defined by DOE to include the viewshed surrounding the proposed cogeneration facility site, the site of the proposed substation expansion (including the town of Bair), and a 3000 foot corridor along the proposed electric interconnect route. W-KC-1/31b

W-KC-1/31a

KEYWORDS:
Historic resources

Response: The requested forms for properties included in the cited viewshed were completed, analyzed, and submitted for review to the Pennsylvania Bureau for Historic Resources on March, 17, 1995 (see letter from S. Van Ooteghem to B. Barrett, dated 3/24/95 in Appendix E of the FEIS).

W-KC-1/31b

KEYWORDS:
Historic resources

A Historic Sites Survey was designed and completed by Historic York, Inc., which conformed to the specifications outlined in this comment. DOE submitted this survey to the Pennsylvania Bureau for Historic Preservation on March 17, 1995. The Bureau has reviewed this survey and provided DOE with its decision regarding eligible resources. Also please see the responses to Comments W-KC-1/31a and W-KC-1/31c.

In addition, DOE should evaluate the presence of a rural historic district in the area along the route of the proposed electric interconnect and a historic district in Bair. Once this resource data is compiled, it must be submitted to our office for evaluation of its eligibility for the National Register of Historic Places. W-KC-1/31c

Previous submissions regarding archaeological resources are currently being reviewed by our staff. Comments on these reports will be forthcoming under separate cover.

If you need further information regarding archaeological resources please contact Dorothy Humpf at (717) 772-4520. If you need further information concerning historic structures please consult Caroline Hall at (717) 783-6099.

Sincerely,

Kurt Carr, Chief
Division of Archaeology & Protection

KC/ch
cc: Advisory Council on Historic Preservation
Karen Winegardner, York County Energy Partners
Melinda Higgins, Historic York, Inc.

TOTAL P.03

W-KC-1/31c

KEYWORDS:
Electric switchyard
Historic resources

Response: The requested evaluation (Historic Sites Survey) was completed, analyzed, and submitted to the Pennsylvania Bureau for Historic Preservation for review on March 17, 1995. The Bureau reviewed the Historic Sites Survey and determined that four districts, including Bair, and 11 individual resources are eligible for listing on the National Register of Historic Places (see correspondence from B. Barrett to S. Van Ooteghem dated 3/27/95 and 4/14/95 in Appendix E of the FEIS). Sections 3.1.11.1, 3.1.14.11, 4.1.11.1, 4.1.14.1, and Table 4.4-1 of the FEIS have been updated to reflect this new information. Please see also the response to Comment W-KC-1/31a.

Via EXPRESS US Mail EF 288354903

Dr. Suellen Van Ootegem
Environmental Project Manager
United States Department of Energy
Morgantown Energy Technology Center (METC)
P.O. Box 880, 3610 Collins Ferry Road
Morgantown, WV 26507-0880

January 29, 1995

Subject: DOE/EIS-0221 and NEPA Non-compliance

Dear Dr. Van Ootegem:

We are writing as private citizens in response to the Draft Environmental Impact Statement (DOE/EIS-0221 [DEIS]) pertaining to the construction and operation of a coal fired atmospheric circulating fluidized bed plant in York County, Pennsylvania and issues relative to the compliance of the DEIS with the National Environmental Policy Act (Public Law 91-190, 91st Congress, S. 1075 January 1, 1970 [NEPA]).

According to NEPA, alternatives to the proposed action are required to be considered. The programmatic environmental impact statement (PEIS) and the notices for hearings the Department of Energy (DOE) initially claimed that the proposed action need only be compared to the denial of federal participation in the project (no action). Discussion with DOE officials indicates that it is the legal opinion of the agency that the NEPA alternate technologies comparison requirement need not be complied with due to the demonstration aspect of the CCT program in general.

While the DEIS makes some limited comparisons of the proposed technology to that of gas fired and two mini-ACFB boilers, it fails to take a hard, reasonable look at other coal based technologies the agency is promoting and that, if operated in place of the proposed ACFB plant, would yield millions of pounds of emission reduction and a lessening of environmental impact to the community over the course of the plant's life. W-FM-1/31a

We believe the failure of the DOE to consider appropriate alternatives, in this case, is action taken without observance of procedure required by NEPA law. The DOE's failure to consider appropriate alternatives in this case prevents us from engaging in a thorough and reasonable discussion with the DOE of significant mitigation aspects of probable environmental consequences and fails to provide information to us which is sufficient to encourage our informed public participation that would enable the DOE to consider environmental factors and make a reasoned decision as to the benefits, or lack thereof, of this project. Further, we believe the failure of the DOE to consider appropriate alternatives to the proposed project is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. As remedy, we request that the proposed action be compared to appropriate alternative technologies - both proven and experimental - and that would lead to the achievement of the goals of the Clean Coal Technology Program. W-FM-1/31b

Please communicate your response to our attention at the addresses appearing below. Thank you for your kind consideration in this matter.

Sincerely,

Richard Clark, PhD.
RD 7, Box 7238
Spring Grove, PA 17362

Francis McKee
2442 Wedgewood Way
York, PA 17404

W-FM-1/31a

KEYWORDS:
Alternative technologies
Emission reduction

Response: The Programmatic EIS analyzes other advanced coal-based technologies to be considered under the Clean Coal Technology Program. The York County Energy Partners proposed project's EIS tiers from this document. Please see also the responses to Comments D-37/16, D-100/9, and D-201/4 for further information.

W-FM-1/31b

KEYWORDS:
Alternatives analysis
Alternative technologies
Mitigation

Response: Please see the responses to Comments D-37/16, D-39/13, D-100/9, and D-201/4.

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House of Representatives
COMMONWEALTH OF PENNSYLVANIA
HARRISBURG

COMMITTEES

AGING AND YOUTH
EDUCATION
HOUSE LOCAL TAX REFORM CAUCUS
PA FIRE FIGHTER'S LEGISLATIVE CAUCUS

TO: Dr. Suellen A. Van Ooteghem

FROM: Representative Todd Platts T.R.P.

DATE: January 31, 1995

Attached please find written comments to be included in the Department of Energy's formal Environmental Impact Statement review of York County Energy Partners' proposed cogeneration project at North Codorus Township, York County, Pennsylvania.

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Written Comments, Including and Supplementing Comments Made at the Public Hearings, Regarding the Proposed York County Energy Partners' Cogeneration Project at North Codorus Township, PA

As State Representative in the 196th District and as a resident of York County, I certainly appreciate the opportunity to comment on the Department of Energy's (DOE) Draft Environmental Impact Statement (DEIS) concerning York County Energy Partners' (YCEP) cogeneration project proposed for North Codorus Township, York County. Given the time restraints placed on speakers participating in the public hearings, I plan to focus my comments tonight on two primary areas - the projected emissions associated with this project and the no-action alternative/alternative technologies issue.

First, however, I want to place on the record my strong objections to these hearings being held this week. The minimum amount of notice required under NEPA for such hearings is fifteen days. Although this requirement was met in the technical sense, the actual amount of notice provided, approximately three weeks, certainly did not fulfill the spirit of NEPA when several factors are considered. W-TP-1/31a

First, the DEIS is approximately 600 pages in length without including the hundreds of pages of documents incorporated by reference. This length is more than twice the stated limit for EISs. NEPA regulations state that EISs should not exceed 150 pages in most situations and no more 300 pages in extreme cases. I am not objecting to the length of the EIS nor the breadth of information included. Rather, I am only stating that the length of time given to prepare for W-TP-1/31b

W-TP-1/31a *Response:* Please see the response to Comment D-32/13.

KEYWORDS:
Document length
NEPA
Schedule

W-TP-1/31b *Response:* Please see the response to Comments D-32/5 and D-32/13.

KEYWORDS:
Document length
NEPA
Schedule

these hearings should have been equally lengthened. Additionally, one of the three reading rooms identified by DOE for reviewing the documents incorporated by reference did not exist and not all of the documents incorporated by reference were initially available in the two reading rooms in operation. W-TP-1/31c

Although the public hearings are going forward as originally scheduled, I do want to commend DOE Deputy Secretary Patricia Godley for directing that, in light of the above stated concerns, the deadline for submitting written comments be extended from January 10, which would have barely fulfilled the mandatory 45 day comment period, to January 31.

Emissions Analysis

I respectfully object to the manner in which the projected air emissions from YCEP's proposed plant were compared to P.H. Glatfelter's (PHG) current air emissions of sulfur dioxide (SO_2), oxides of nitrogen (NO_x), particulate matter (PM_{10}), carbon monoxide (CO), and volatile organic compounds (VOCs). W-TP-1/31d

First, given the health risks associated with exposure to CO and the role VOCs play in creating ozone (0_3), along with the fact that emissions of both CO and VOCs will increase dramatically if this project moves forward, I found it troubling that Table 4.1-2 found on page 4-22 only compares PHG's and YCEP's emissions of SO_2, NO_x, and PM_{10}. I found your exclusion of CO and VOCs from this comparison especially interesting when I noted that you included these two emissions in Tables 4.3-1 and 4.3-2 when you compared YCEP's projected emissions with the "no-action" alternatives of building a 227-MW natural gas-fired combined cycle facility and a 227-MW coal-fired facility. W-TP-1/31e

W-TP-1/31c

Response: Please see the responses to Comments D-59/22 and D-60/2.

KEYWORDS:
Document availability
NEPA
Reading rooms

W-TP-1/31d

Response: Please see the response to Comment D-34/1.

KEYWORDS:
Air emissions
Emission differentials

W-TP-1/31e

Response: Please see the responses to Comments D-34/7 and D-34/19.

KEYWORDS:
Air emissions
Alternative analysis
Carbon monoxide
Emission differentials
VOCs

It is important to note that when proponents of this project claim that its construction will eliminate millions of pounds of air pollutants in York County that such data only refers to SO_2, NO_x, and PM_{10} emissions. Such data does not include the tremendous increases in CO and VOCs emissions that will result from this project. In fact, when CO and VOCs emissions are included in the comparison, the net amount of air pollutant emissions from this project **increases** by more than one and one half million pounds. W-TP-1/31f

My second objection concerning the air emissions analysis of the DEIS is the manner in which the worst case scenario for YCEP and PHG emissions was determined. Rather than comparing YCEP permitted air emissions levels versus PHG permitted air emission levels, it seems more appropriate, and more likely to result in a realistic analysis, to compare PHG's actual air emissions with YCEP's requested permit levels. Given that DOE and YCEP want to fund this project because this technology (CFB) has supposedly never been proven at this scale it seems appropriate and logical to use YCEP's requested air emissions permit levels as evidence of the worst case scenario. As to PHG's air emissions levels, however, there is much documented data to rely on. Using this manner of determining the worst case scenario will better ensure a realistic comparison. If this manner of comparison was used, the more realistic analysis of the five main air pollutants discussed above would show a net increase in these air emissions of approximately 1.77 million pounds per year. W-TP-1/31g

Alternative Technologies

Other clean coal technologies should be considered, not just identified as available by the W-TP-1/31h

W-TP-1/31f

Response: Please see the response to Comment D-35/8.

KEYWORDS:
Air emissions
Emission differentials

W-TP-1/31g

Response: Please see the response to Comment D-36/7.

KEYWORDS:
Air emissions
Emission differentials

DEIS. Specifically, DOE should conduct a thorough analysis of the environmental impact of using Pressurized Circulating Fluidized Bed and Integrated Gasification Combined-Cycle technology instead of the planned Atmospheric Circulating Fluidized Bed technology. An in-depth review of other clean coal technologies is imperative if the spirit and letter of the National Environmental Policy Act is to be fully and accurately complied with in reference to reviewing all reasonable alternatives. This request is supported by the EPA's request for other technologies to be considered (i.e. Diana Esher's 10/19/93 letter to Dr. Suellen Van Ooteghem and EPA Regional Administrator Peter Kostmayer's and Roy Denmark's 10/23/94 published comments). (continued)

DOE's past conduct shows flexibility is allowed regarding technology selection (i.e. Tallahassee project was alternative, YCEP project is variation of Tallahassee).

No Action Alternatives

The DEIS inaccurately states that ACFB technology at this scale will not be commercialized if this funding is not provided. First, we said ACFB is proven the world-wide. In fact, PHG continues to cite the proveness of ACFB technology as grounds for wanting it. DOE's response: not at this scale. Next, we identified projects such as the 250-MW ACFB plant in operation in France as proof that this technology does not deserve federal funding. DOE's response: not American technology at this scale. Next, the DEIS mentions the Pt. Aconi ACFB plant in Nova Scotia (Pyropower - 201 mw gross/165 net), but fails to identify the Warrior Run ACFB project underway in Cumberland, MD (ABB-CE - 208 mw gross/180 net). Both of these plants are using American technology. Finally, the DEIS fails to discuss projects such the Turow Power Station in Poland (Pyropower - 2 boilers at 235 mws each) and ABB-CE's new project W-TP-1/31i

W-TP-1/31h ***Response:*** Please see the responses to Comments D-37/16 and W-RJC-1/30d.

KEYWORDS:
Alternative technologies
Energy management
Need for power

W-TP-1/31i ***Response:*** Please see the responses to Comments D-37/16, D-39/13, and D-40/16.

KEYWORDS:
Alternative technologies
Commercialization
status

planned for Korea (220 mw gross/200 net). (continued)

American ACFB technology at this scale is already occurring whether DOE wants to admit it in the DEIS or not. The $75 million under consideration for this project will serve as a reward not as an incentive.

Additional Points to be Addressed

The PA Public Utility Commission's condition regarding the $75 million being an imperative factor concerning the PUC's order for Met-Ed to purchase electricity generated at the cogeneration plant should be irrelevant as to the DOE's review of the appropriateness of federal funds being provided to this project. W-TP-1/31j

In order to review the worst case environmental impact of the proposed project's emissions of volatile organic compounds, the EIS should assume that the plant will only operate at 50% capacity since Met-Ed is contractually bound to purchase only half of the plant's potential electricity production. Under this scenario, the plant's projected VOC emissions would be approximately 52 tons per year and would require VOC offsets. W-TP-1/31k

Any analysis of the impact this plant will have on the electric rates paid by Met-Ed customers should be based on 1995 data, not 1991 or 1992 figures. See attached news article. W-TP-1/31l

W-TP-1/31j

KEYWORDS:
Government funds
Met-Ed

Response: Comment is noted. The power purchase agreement between Metropolitan Edison Company (Met-Ed) and YCEP makes the proposed project feasible from the industrial partner's point of view. DOE did not enter into the decision-making process with respect to the Pennsylvania Public Utility Commission (PUC) and its ordering of a power purchase agreement, and DOE is not in any way influenced in its decision-making process by the existence of the PUC's Federal funding condition.

W-TP-1/31k

KEYWORDS:
Air emission
Loading factors
VOCs

Response: Please see the responses to Comments J-49/12 and W-JK-1/28u.

W-TP-1/31l

KEYWORDS:
Electric utility rates

Response: Please see the response to Comment D-137/17.

York Sunday News 11/27/94

Report key to plant's future

Analysis

A federal Energy Department report could decide the fate of the proposed coal-burning power plant in North Codorus. The report itself raises questions.

By JEFF KRALOWETZ
Dispatch/Sunday News

The scuffle over plans to build a $380-million cogeneration plant near Spring Grove has shifted to whether a potentially show-stopping federal report presents a true picture of the project's environmental effects.

The U.S. Department of Energy report, issued in draft form last week, could determine if the project gets $75 million in federal funding it needs to stay alive.

UPDATE
Cogeneration In North Codorus

In its present form, the environmental impact statement contends that the 227-megawatt steam- and electricity-generating project could lower local electric rates and improve both the local economy and overall air quality.

But a wide range of others — from doctors and environmentalists to utility officials — are questioning those conclusions.

In fact, they say, the coal-burning project would add tons of toxic substances to the air, further degrade the Codorus Creek and possibly force Metropolitan Edison to increase rates to its customers.

Having the final report to reflect some of those concerns —and contesting some of its assumptions — will be part of the mission for local opponents of the plant plans when they

See REPORT *Page A7*

■ Plant facts, hearing information
A6-7

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FROM PAGE ONE

■ REPORT

Key to plant's future

Continued from Page A1

eak at DOE hearings next onth.

Public hearings have been heduled Dec. 14-16, and are ıe indication that the DOE is ying to limit public involve-ent, said Richard Clark, okesman for the opposition oup, Stop Targeting Our ople.

"(The report) weighs four unds with pages printed on th sides," Clark said. "To go rough that (in three weeks) d verify everything is impossi-."

Clark said he has asked U.S. p. William F. Goodling, R-anchester, to intervene with DOE to get the hearings de-ed until after the holidays. Other project opponents in-ude the York County Medical iety, York County Osteopa-c Medical Society, the Ameri-n Lung Association of stheentral Pennsylvania and mbers of Clean Air, Safe Envi-ment (CASE), formed when project earlier was targeted a site in West Manchester wnship.

et-Ed questions

One of the key assumptions in draft report is that without proposed new plant, local electric rates could increase.

But Met-Ed officials say the assumption is not necessarily right.

They say the federal officials failed to account for changing market forces when they assumed that Met-Ed customers would have to pay for the company to build a new power plant or to have a private company build one if the plan by developers York County Energy Partners falls through.

In fact, Met-Ed spokeswoman Judith Botvin said that Met-Ed rates could be lowered if the project is not built.

The utility could replace the electricity it would have bought from the proposed new plant with potentially cheaper electricity on the short-term market or from other sources, she said.

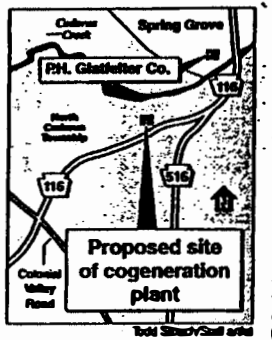
"What we would look for would be the most economical supplier at the time we need the energy," Botvin said.

It's already in use

Another assumption in the federal report is that if the project is not built, utilities across the country will use older, dirtier technology in their new coal-burning boilers.

The reason: They will not have the project to look to as proof that the cogeneration technology works on a utility scale.

The problem with that argument, project opponents say, is that in the eight years it took the proposal to relocate from



Todd Strasdy/Staff artist

Tallahassee, Fla., to West Manchester Township and finally to North Codorus Township next to the P.H. Glatfelter Co. paper mill, the technology has become widely accepted.

There are now more than a dozen boilers currently operating in Pennsylvania using the same technology.

And although the Pennsylvania boilers are all smaller than the local project would be, DOE acknowledged last week that boilers of the same scale or larger are now being sold commercially elsewhere.

Taken together, those facts make the DOE's assumption that the technology won't be commercialized tough to accept, opponents say.

And they say that increasingly rigid environmental rules will make it virtually impossible for utilities to return to pre-1980s technology for their new boilers.

Bottom line, opponents say, if the technology is going to be on the market anyway, there is no reason for the federal government to spend $75 million subsidizing a demonstration of the technology.

Balky boiler

A third conclusion reached in the federal draft report is that without the new power generator, a key opportunity to shut down P.H. Glatfelter's 1950s vintage boiler No. 4 would be lost.

But provisions in the report for boiler No. 4 to continue operating for part of each year call those environmental savings into question.

Glatfelter officials have said they could shut down the older boiler if the new cogeneration project is built because the new boiler would generate steam for the papermaker at the same time it generates electricity for Met-Ed.

Glatfelter would buy 400 pounds of steam per hour from the new boiler, which York County Energy Partners plan to build next to the papermaker's Spring Grove mill.

DOE data show that the new boiler would emit 50 percent less sulfur dioxide than the Glatfelter boiler No. 4 while producing the same amount of steam.

Although the new boiler would emit other air pollutants, including some components of smog, DOE and company officials have repeatedly said the project would represent a net decrease in air emissions — assuming boiler No. 4 was shut down.

But the draft report also says boiler No. 4 would not have to be shut down entirely.

In fact, it could run indefinitely when the new boiler is shut down for repairs.

And the two boilers could operate together for up to 30 days (720 hours).

Heated hearings

With these and other provisions of the draft in question, hearings on the report may be as contentious as earlier DOE visits in August and October 1993.

Officials at Met-Ed say they have not ruled out making an appearance at the hearings, and a wide range of local opponents say they will participate, as they did in the earlier hearings.

DOE officials said they will consider both oral and written public comments as they prepare the final environmental impact statement.

Meantime, hundreds of York County residents will be poring over their copies of the draft report to get an idea of what the chances are they will see bulldozers moving this spring at the proposed project site on Route 116.

Cogeneration impact statement

The U.S. Department of Energy will hold public hearings 7-10:30 p.m. Dec. 14-16 on its draft environmental statement for the proposed York County Energy Partners cogeneration facility in North Codorus.

The hearings will be held in the Old Main Building of the York Fairgrounds, 334 Carlisle Ave.

Residents who want to speak at the hearings may reserve a time by contacting Dr. Shellen Van Ootegham, Morgantown Energy Technology Center, 3610 Collins Ferry Road, Morgantown, W.Va. 26507-0880 (telephone: 304-285-5443).

Envelopes requesting a speaking reservation should be labeled "York County Energy Partners Draft EIS."

Advance registration for presenting oral comments at the hearings will be accepted up to one week prior to the hearing date. Comments will be limited to 5 minutes.

Written comments will be accepted at the same address, and must be submitted by Jan. 10.

Copies of the draft environmental impact study are on file at the following locations:

- Glatfelter Memorial Library, 101 Glenview Road, Spring Grove.
- York County Library, 118 Pleasant Acres Road, York.
- York County Courthouse, 28 E. Market St., York.
- U.S. Department of Energy Freedom of Information Reading Room, 1E-190, Forrestal Building, 1000 Independence Ave., S.W., Washington, D.C.
- U.S. Department of Energy Morgantown Energy Technology Center, 3610 Collins Ferry Road, Morgantown, W.Va.

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Cogeneration in North Codorus: Fast facts

What: A planned coal-burning co-
neration plant that would produce
:am for P.H. Glatfelter Co. and
ctricity for Metropolitan Edison

Where: North Codorus Township
land next to the P.H. Glatfelter Co.
per mill.

Cost: $380 million, with $75 mil-
n to be provided by the U.S.
partment of Energy. The project
s the federal money only if it
sses an environmental impact
dy currently under way.

Who: York County Energy Partners
L, a subsidiary of Allentown-based
Products and Chemicals Inc.,
uld build and operate the plant.
Products is a major international
ducer of industrial gases, with
,400 employees in 29 countries
1 $3.3 billion in sales last year. It
s built and operated two similar,
smaller cogeneration plants, one
Cambria County and another in
ckton, Calif.

P.H. Glatfelter Co., the county's 14th largest employer and its top emitter of toxic pollutants, would provide the land for the project and would buy the steam it would produce. Under terms of a permit application pending in Harrisburg, Glatfelter also would shut down one of its currently-operating coal-burning boilers if the new plant is built.

When: Energy Partners officials expect to begin operating the plant in 1998.

Project basics: The plant would burn about 2,400 tons of coal per day (which would arrive at the facility by rail, 90 to 100 rail cars each four or five days). Heat from the boiler (which burns crushed coal on a "circulating bed" of hot air) would be used to create 400,000 pounds of steam per hour to be piped to P.H. Glatfelter. Additional steam would turn a turbine creating electricity to be sold to Met-Ed.

The plant would be cooled by drawing nearly 3 million gallons of wastewater from Glatfelter's wastewater treatment system each day. Glatfelter currently returns about 12 million gallons of treated wastewater to the Codorus Creek each day.

Air emissions would be controlled in several ways. Crushed limestone would be jetted into the boiler with the burning coal to absorb about 92 percent of the sulfur dioxide created and ammonia would be injected into exhaust gases to reduce emissions of oxides of nitrogen. Various filters also would be used.

The limestone and ammonia injection techniques are improvements over pollution controls used in earlier coal-burning plants, and constitute one of the technology packages the Energy Department wants to encourage through its Clean Coal Technology progrm. The program plans to award the Energy Partners project $75 million.

Project benefits: Energy Partners says its project would generate 65-70 new permanent jobs, up to 1,000 construction jobs and $500,000 in local taxes. The company also says the plan to shut down Glatfelter's boiler No. 4 will cut the overall emissions of some pollutants. Energy Partners contends its poject will lead to lower electric rates for Met-Ed customers.

Opponents' objections: Both local medical societies as well as localciti-zens' and conservation groups oppose the plant. Some of the questions concerning them include the following:

- Will diverting 3 million gallons of treated waste water from the Codorus Creek each day hurt the stream by reducing its volume?
- Will increased emissions of toxic heavy metals affect local health?
- Will other air emissions threaten the lung health of residents with asthsma and other ailments?
- Should the federal government be spending $75 million on the project when more efficient pollution reducing technologies exist?

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The Department of Energy is interested in obtaining your written comments on the Draft EIS for the proposed York County Energy Partners Cogeneration Facility in York County, Pennsylvania. Please provide your comments in the space below and print your name and address on the reverse side of this card. Your cards can be deposited in the boxes provided at the public hearing or mailed directly to the address on the reverse side.

I have one question to ask (make that 2 please)

① I would like to know if you or anyone on your staff would truly like to wake up one day, ahead, be told that they are building a huge coal plant directly across the street of your home - a home that you had labored all your life to build and keep nice and have a family in.

I do not think you have taken any of the human issues into consideration - only dollars and career advancement - and that is a shame!

W-AP-1/30a

② Are you providing any financial compensation to residents whom will be negatively impacted - either health wise or mentally due to this project? I rightly think legal funds should be set aside, giving residents the same opportunity and access to legal assistance that this project has granted to these companies that will financially benefit.

W-AP-1/30b

Thank you

Name: Anne Paris

Address: 112 Woodbrook Lane
Balto, MD 21212

3 BALTIMORE, MD 212
PM
30 JAN
1995

Old Glory

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Department of Energy
Morgantown Energy Technology Center (METC)
P.O. Box 880
3610 Collins Ferry Road
Morgantown, West Virginia 26507-0880

W-AP-1/30a

KEYWORDS:
Comments

Response: DOE has held several meetings in the York area to solicit comments regarding the issues, including human health issues, important to the people of York County. During the scoping meetings held earlier, DOE received over 600 scoping comments that were considered in the development of the DEIS. In addition, all comments received at the public hearings relative to the DEIS (well over 900) were considered in the development of the FEIS.

W-AP-1/30b

KEYWORDS:
Compensation
Government funds

Response: Potential mitigation actions as described in Section 4.4 of the EIS do not include financial compensation to residents for health effects or mental anguish. In the event of a favorable Record of Decision (ROD) to co-fund the proposed project, some of the mitigation actions in Section 4.4 would be adopted in the ROD, even though DOE is not legally obligated to require any mitigation. However, the establishment of a legal fund for payments to residents would not be adopted as a mitigation measure.

Izaak Walton League of America, Inc.

DEFENDER OF SOIL, WOODS, WATERS, AIR AND WILDLIFE

WILLIAM R. SHAFFER
P.O. Box 35
101 Park Street
Loganville, PA 17342
Phone: (717) 428-2883

REGIONAL GOVERNOR
REGION VI

JANUARY 30, 1995

STATEMENT ON COGEN

TO D.O.E.

TO WHOM IT MAY CONCERN:

AS A MEMBER OF THE YORK CHAPTER #67 IZAAK WALTON LEAGUE OF AMERICA, AND ALSO SERVING AS THE REGIONAL GOVERNOR OF REGION #6 OF THE IZAAK WALTON LEAGUE OF AMERICA, I WOULD LIKE TO MAKE THE FOLLOWING STATEMENT TO THE DEPT. OF ENERGY ABOUT THE PROPOSED COGEN IN YORK COUNTY.

I HAVE STOOD BEFORE YOU ON SEVERAL OCCASIONS AND STATED OUR OPPOSITION TO THIS COGEN THAT ENERGY PARTNERS WOULD LIKE TO BUILD IN NORTH CODORUS TWP. NONE OF MY STATEMENTS HAVE BEEN HEARD SO I AM HOPING THAT MAYBE THIS WRITTEN STATEMENT WILL HAVE MORE EFFECT ON THE PANEL FROM D.O.E. W-WRS-1/30a

THERE IS NO NEED FOR THIS COGEN TO BUILT. WE DO NOT NEED THE ELECTRICTY IN YORK COUNTY. AS YOU MAY OR MAY NOT KNOW, THE ELECTRICAL INDUSTRY HAS ONLY HAD A 2% GROWTH OVER THE LAST FOUR YEARS. IN THE NORTH EAST WE HAVE A SURPLUS OF ENERGY SO WHERE ARE YOUR FACTS COMING FROM! W-WRS-1/30b

WE HAVE STATED IN THE PAST THAT THE BEST B T A WAS NOT USED; THIS IS WHY THE YORK CHAPTER AND MANY OF THE PEOPLE ARE AGAINST THIS PROJECT. IN THIS ERA OF BALANCED BUDGETS AND REDUCING THE DEFICIT, WE WOULDN'T WANT TO SEE TAXPAYER'S MONEY ($75 MILLION) SUPPORTING THE DEMONSTRATION OF TECHNOLOGY THAT HAS ALREADY BEEN PROVEN TO WORK ELSEWHERE ON A SMALLER SCALE. W-WRS-1/30c

ONE OTHER FACT I FEEL THAT WE MUST FACE ON THIS COGEN PROJECT IS THAT FALSE FACTS HAVE BEEN SUBMITTED TO D ● E BY YORK COUNTY ENERGY PARTNERS. REP. PLATTS PRESENTED THESE AT THE LAST HEARING HELD IN YORK. OUR QUESTION IS THIS - WHY DIDN 'T THE DEPT. LET US KNOW THAT THESE WERE FALSE FACTS AND WHY DID YOU WAIT THIS LONG TO BRING THEM OUT? W-WRS-1/30d

W-WRS-1/30a

KEYWORDS:
Comments
NEPA

Response: The National Environmental Policy Act process is a multi-step process, with many intermediary steps progressing toward a Record of Decision. Written and oral comments received during the public hearing period, relative to the proposed project, have been carefully considered and specifically answered during the preparation of the FEIS.

Please see also the response to Comment D-61/23.

W-WRS-1/30b

KEYWORDS:
Need for power

Response: Please see the responses to Comments D-83/5 and W-RJC-12/5b. Also, DOE Headquarters' independent assessment of the need for power is attached in Appendix K to this FEIS.

W-WRS-1/30c

KEYWORDS:
Commercialization status
Government funds

Response: The need for this project has been discussed in the EIS and is further explained in the response to Comment D-39/13. The scale at which the project is demonstrated is of major importance. One of the main goals of the Clean Coal Technology (CCT) Program is to see that more efficient and environmentally responsive coal technologies have been demonstrated at the utility scale by the year 2000 and are available for replacing the United States' existing inventory of aging utility boilers. Please refer to Section 1.3.2, "DOE Need," in the EIS for a discussion of the CCT strategy and the national benefits which are expected to result from its success.

DOE must assume that this letter's reference to "B T A" is a reference to either the term "Best Available Technology" (BAT) or to the term "Best Available Control Technology" (BACT). These terms, BAT and BACT, are not simply descriptive terms, but are legal terms for technologies required to limit emissions. The proposed plant is subject to Prevention of Significant Deterioration (PSD) review and is required to operate under the requirements of both BAT and BACT. The Pennsylvania Department of Environmental Resources (PADER) will determine if the proposed project has incorporated BACT in its design. Please see Section 4.1.2, Chapter 9, and Appendix I of the EIS for more information regarding BACT for this proposed project.

With regard to the boiler technology used, please see the responses to Comments D-37/16 and D-100/9, which discuss the consideration of alternative technologies and the currency of using atmospheric circulating fluidized bed (ACFB) technology, respectively.

W-WRS-1/30d

KEYWORDS:
NEPA
Quality

Response: While it is true that potentially more recent information is currently available than was available earlier, DOE is not aware of any intentional "false facts" presented by either York County Energy Partners or its contractors in the preparation of this EIS. Responses to the comments presented by Representative Platts at the earlier public hearing have been provided in the FEIS.

Please see also the response to Comment W-WHE-1/27g.

THIS LOOKS BAD ON THE PART OF THE DEPT. OF ENERGY BECAUSE YOU DIDN'T DO YOUR HOME WORK OR INVESTIGATE THESE FACTS THAT WERE GIVEN TO YOU BY Y.C.E.P. (continued)

ALL OF THE ABOVE SHOULD BE ENOUGH TO SEE THAT THE COFGEN SHOULD NOT BE ISSUED A GOOD EIS BY THE DOE.

PLEASE THINK OF THE GENERATIONS THAT COME AFTER US. MANY OF

US WHO STOOD AND GAVE TESTIMONY AT THE HEARINGS ARE ON THE WAY DOWN THE OTHER SIDE OF THE HILL, BUT LET US KEEP IN MIND THOSE THAT WILL COME AFTER US MAYBE TWO OR THREE GENERATION AFTER WE ARE GONE. THESE ARE THE ONES THAT WE ARE FIGHTING FOR. NONE OF THE PANEL LIVE HERE AND MAYBE YOU DON'T CARE BUT IT IS YOUR DUTY TO CARE. THIS IS WHAT YOU HAVE BEEN CHARGED WITH - TO PROTECT OUR ENVIRONMENT, AND THAT IS WHAT I AS A CITIZEN OF THIS YORK COUNTY AM CHARGING YOU THE DEPT. OF ENERGY WITH.

PLEASE DO YOUR DUTY FOR THE COMING GENERATIONS AND IF YOU DON'T MAY GOD HAVE MERCY ON YOUR SOULS.

THANK YOU FOR YOUR TIME AND CONSIDERATION IN THE ABOVE MATTER.

YOURS IN CONSERVATION

William R Shaffer

WILLIAM R. SHAFFER - GOVERNOR OF REGION #6

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January 24, 1995

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U. S. Department of Energy
Morgantown Energy Technology Center (METC)
P.O. Box 880
3610 Collins Ferry Road
Morgantown, West Virginia 26507-0880

SUBJECT: Written Comment. Draft EIS. York County Energy Partners Proposed Cogen Facility in York County.

Would you please take the time to answer the following questions regarding the proposed coal plant.

1: In view of the fact that the funds set aside by Congress, for the Clean Coal Technology program, were intended for experimental projects, why do you continue to pursue a project that clearly can no longer be described as experimental ? W-RB-1/24a

2: In your opinion, if a governmental employee deliberately participates in the misrepresentation of a project that defies the spirit of the congressional tax appropriations, do you believe that, the individual should be held personally accountable? W-RB-1/24b

3: How can the DOE even suggest that the traffic in the area of the plant will not be negatively impacted? W-RB-1/24c

NOTE: I drive the road into and out of Spring Grove everyday (route 116) and I can see firsthand that it is already a problem road. I have sat many a day in traffic backed up a half a mile at the intersection of route 30 and route 116. I see first hand drivers dangerously cutting through back country roads in an attempt to divert around the jams.

This route is the major thrufare between a rapidly growing Hanover community of 75,000 plus and the city of York with it"s 150,000 plus residents.

The small town of Spring Grove has one extremely narrow main street that sits directly in the path of all this traffic. To suggest that this plant with all it"s truck and train traffic will not exacerbate these traffic problems is plainly irresponsible.

I challenge that the company you paid to tell the citizens of the area that there will be no problem be audited by an independent third party. W-RB-1/24d

4: Why does the DOE continue to particpate in the deception that the electricity from this project will directly benefit the local residents, when you know full well, that this W-RB-1/24g

W-RB-1/24a

Response: Please see the response to Comment D-39/13.

KEYWORDS:
Commercialization status

W-RB-1/24b

Response: Comment is noted.

KEYWORDS:
General

W-RB-1/24c

Response: DOE did not indicate that the construction and operation of the proposed plant would not impact traffic in the area. As stated in Section 4.1.8 of the EIS, DOE's analysis showed that during construction, degradations in Level of Service (LOS) would occur at the three major intersections. During operation, the EIS indicated an LOS degradation at one intersection and increases in traffic at all three intersections ranging from 5 to 8.5 percent. In Section 4.4 of the EIS, DOE identified possible mitigation measures that would alleviate some of the impacts associated with increased traffic. In a letter dated January 3, 1995, to DOE, the Pennsylvania Department of Transportation (PennDOT) noted that York County Energy Partners, L.P. (YCEP) would receive a permit from PennDOT to signalize the intersection of PA Routes 16 and 116. Signalization and lane improvements would improve the intersection to an acceptable level of service, even when the proposed YCEP plant would be in operation.

As detailed in Figure 2.1-4 of the EIS, the proposed facility would include the addition of several rail spurs to the existing Yorkrail Mainline. These spurs would function as queuing space for anticipated rail traffic. Both Conrail and CSX could accommodate the expected increase in rail traffic. Please also see responses to Comments W-WJG-1/30b through W-WJG-1/30c11.

KEYWORDS:
Transportation

W-RB-1/24d

Response: Comment is noted. Please see also the responses to Comments D-112/15, D-125/12, D-287/16, and J-93/19.

KEYWORDS:
NEPA
Oversight

power will be exported outside the York County area and the local residents will most likely end up with higher electric bills due to increased energy costs by METED? (continued)

5: Why has it become necessary to import pollution credits into the area, when this project was supposed to result in net reduction of pollution for the local residents? W-RB-1/24h

6: You have used extensive language, in your final report, suggesting that since the proposed site area is already polluted, additional pollution would only "be in keeping with the community". W-RB-1/24e
Why have you, and your staff, adopted this attitude and don't you realize that not all York Countians are out for a quick buck ; that most residents of the county take pride in their community and want to clean it up, not just trade one polluter for another?

7: It is a known fact that coal contains mercury that is vaporized and released upon burning. The effects of mercury poisoning , at extremely low levels of contamination, is now well documented. Unfortunately, our scientists were ignorant of these facts up to only a relatively few years ago. It is also a known fact that Lake Redman, the major water supply for York County is approximately 10 miles, directly downwind from the prevailing winds and directly in the fallout zone for the mercury that will be emitted from the proposed power plant. W-RB-1/24f

In view of these facts, how do you propose to prevent the mercury from invading York's open water supply?

I, and my neighbors, are looking foward to recieving your prompt reply.

Thank you.

Sincerely,

Richard Brown

Richard Brown
RD # 5 Box 5021
Spring Grove, PA 17362

CC: C. Browner, Environmental Protection Agency, Wash. D.C.

W-RB-1/24e

KEYWORDS:
NEPA
Oversight

Response: Environmental and human health impacts contained in an EIS are assessed in the context of the affected (or current) environment. Impacts are not absolute, but are relative, to the environment in which they occur. For instance, a 55-decibel (dB) source of noise would not be perceived by workers or residents who currently work or live in a 60 dB environment, but could appear to be quite loud and intrusive in a 45 dB existing environment. Conversely, if a proposed project would increase the annual ambient sulfur dioxide (SO_2) concentration by 20 $\mu g/m^3$, this would probably have little environmental, human health, or regulatory impact if the annual background sulfur dioxide (SO_2) concentration is 10 $\mu g/m^3$, but would have a much greater impact if the annual background sulfur dioxide (SO_2) concentration was 70 $\mu g/m^3$ [thus leading to non-compliance with the National Ambient Air Quality Standard for annual sulfur dioxide (SO_2) concentrations].

W-RB-1/24f

KEYWORDS:
Lake Redman
Mercury
Water quality

Response: Please see the response to Comment D-98/5.

W-RB-1/24g

KEYWORDS:
Electric utility rates
Energy management

Response: Please see the responses to Comments W-RJC-12/5b and D-137/17.

W-RB-1/24h

KEYWORDS:
Emission reduction
ERCs
Oxides of nitrogen

Response: Because the proposed York County Energy Partners, L.P. (YCEP) project expected oxides of nitrogen (NO_x) emission rate of 1,437 tons/yr exceeds the 100 tons/yr threshold level for a major source and because the proposed project would lie within the Northeast Ozone Transport Region (which is classified as being in marginal nonattainment for ozone), a total of 1,652 tons/yr of oxides of nitrogen (NO_x) emission reduction credits (ERCs) would need to be obtained to provide the 1.15 to 1 offset required by EPA air permitting regulations. As described in Section 4.1.2.3 of the EIS, approximately 1,700 tons/yr of ERCs would be obtained from a combination of the curtailment of the P. H. Glatfelter Company Power Boiler No. 4, Reasonably Available Control Technology (RACT) modifications to that boiler, and ERCs acquired from the Transcontinental Gas Pipe Line Corporation. The net result of the ERC requirement and the associated 1.15 to 1 offset would be a regional reduction of a minimum of 272 tons/yr of oxides of nitrogen (NO_x) emissions. Emissions reductions by the promotion of such regulatory mechanisms as ERC requirements could be considered to be beneficial to human health and the environment.

The air quality analysis described in Sections 4.1.2.6 to 4.1.2.11 analyzed the impacts of the actual emissions from the proposed YCEP project on ambient conditions without the benefit of ERC reductions or other factors such as the

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curtailment of the P. H. Glatfelter Company's Power Boiler No. 4. As stated in Section 4.1.2.6 of the EIS, the air quality modeling assumed very conservative operating parameters. Modeling results indicated that air quality would remain well below National Ambient Air Quality Standards, and concentrations of criteria pollutants would be 27 percent or less of their respective allowable Prevention of Significant Deterioration (PSD) increments, or would be below U.S. EPA significance levels.

Implementation of the proposed YCEP project would result in net reductions of some key air pollutants in the region (see Section 4.1.2.3, Tables 4.1-2 and 4.1-2a, and the responses to Comments D-34/1 and D-35/8). If the proposed project is not implemented, these reductions would not occur. Although the design of the proposed project is such that these reductions would occur, it is not necessarily a prerequisite for this, or any other proposed project within an attainment area. Rather, it is required that any increases be within permitted and prescribed limits (e.g., PSD allowable increments). In this case, in addition to being within prescribed limits, it is estimated that there would be an overall reduction of some key air pollutants.

YORK COUNTY MEDICAL SOCIETY
AND
YORK COUNTY OSTEOPATHIC MEDICAL SOCIETY

Physicians' Statement of Proposed Coal Burning Cogeneration Plant

January 26, 1995

The Environmental Impact Committee represents more than 600 physicians of the York County Medical Society and the York County Osteopathic Medical Society. The committee consists of three specialists in pulmonary medicine, three gastroenterologists, one reconstructive surgeon, one thoracic surgeon, one specialist in industrial medicine, one specialist in public health and two family practitioners. We continue to oppose the construction of the proposed coal burning cogeneration plant because of its adverse effect on the environment and human health in York County and the surrounding region.

We have recently reviewed the Department of Energy's Draft Environmental Impact Statement regarding the coal burning cogeneration plant. Unfortunately, essentially none of the concerns that we have raised in the past have been addressed.

The Environmental Impact Statement mentions only that York's air quality is usually within DER standards. However, it is not discussed that York is already among the most heavily polluted areas in the state. In addition, we continue to lag behind others in Pennsylvania in the area of air quality improvement. W-YCMS-1/30a

Medical studies show that air pollution has detrimental effects on lung function, especially in susceptible individuals such as children and those with asthma and chronic pulmonary disease. As practicing physicians, we have seen a tendency in York for a significant resistance to the successful treatment of pediatric asthma. This has been substantiated by our consultant-colleagues at Johns Hopkins University. These effects of air pollution occur at levels far below the standards set by the DER and EPA. In December, 1993, the "Harvard Six Cities Study" was published. This has been called by peer reviewers the best study to date with regards to the effect of air pollution on mortality rates in cities regarded to be within EPA standards. There was a 26% higher rate of premature deaths in the most polluted versus the least polluted areas over a 14 to 16 year period. A major source of the particulate air pollution was from power plants. After examining this data, EPA officials concluded that "tens of thousands of people a year are dying as a result of air pollution that is within our current standards". No mention of this landmark study is made by the DOE's current Environmental Impact Statement. In fact, the 1994 mortalities data from the Department of Health is limited to one page. No mention is made of the actual health of the population, such as the incidences of asthma, emphysema or chronic bronchitis. W-YCMS-1/30b

The contamination by mutagenic and carcinogenic agents is also a concern. This component of the report is most lacking. There will be emissions of heavy metals from the proposed coal burning cogeneration plant. Mercury contamination is a serious W-YCMS-1/30c

W-YCMS-1/30a

Response: Please see the response to Comment D-243/7.

KEYWORDS:
Air quality
Baseline

W-YCMS-1/30b

Response: The Health Risk Assessment Section (Section 4.1.2.11) of the FEIS has been revised to include information on recent epidemiologic studies, such as the "Harvard Six Cities Study."

KEYWORDS:
Health effects
Mortality
Particles

Section 3.1.6.1, Health Risk Assessment, which describes the affected environment (current baseline), has been revised to include information provided by the American Lung Association regarding "populations at risk" as applied to York County, which is a gross estimation of population classes at higher risk levels in York County, rather than a cataloguing of the incidence of asthma, emphysema, or chronic bronchitis. DOE attempted to find specific incidence of disease states for York County, but these were unavailable from the Pennsylvania Department of Health.

It should be noted that for a 3-year monitoring period in York County (1990-1992), the annual average particulate (PM_{10}) concentration was approximately 30 $\mu g/m^3$. This concentration is similar to mean levels of PM_{10} observed for St. Louis, MO (28 $\mu g/m^3$) and Kingston, TN (30 $\mu g/m^3$). These communities were analyzed in terms of mortality (*Dockery, Schwartz, and Spengler, 1992*) and results indicate that there was approximately a 16- to 17-percent increase in deaths per 100 $\mu g/m^3$ increase in PM_{10}. Extrapolating these research findings directly to the baseline situation in York County, one could conclude that there is a 5-percent increase in mortality attributable to the existing particle loadings in the York area. However, it should be noted that these extrapolations could be inappropriate or inaccurate since population and other environmental characteristics of the York County area were not considered in this analysis.

In addition, the proposed project would cause an overall decrease of particle loadings into the York air basin (approximately 65 tons/yr based of permitted emissions) due to the curtailment of P. H. Glatfelter Company's Power Boiler No. 4. Thus, it would be expected that the proposed project would not adversely affect human health due to particle emissions.

Please see also the response to Comment W-PHK-1/31c.

W-YCMS-1/30c

Response: Please see the response to Comment D-98/5.

KEYWORDS:
Bioaccumulation
Carcinogens
Health effects
Heavy metal
Mercury
Mutagens

In a recent report to the EPA, the Electric Power Research Institute (EPRI) concluded that mercury (Hg) levels in "ready-to-fire" coal are, on average, 50 percent lower than levels previously reported and used in estimating mercury (Hg) emission factors for coal combustion (*Lamarre, 1995*).

environmental health threat in the United States. Pennsylvania ranks fourth highest in mercury emissions in the U.S.. Fish consumption advisories are frequently issued in this state as a result of mercury contamination. A miniscule amount of mercury added to a body of water can do a great deal of harm, since mercury accumulates and "biomagnifies" as it moves up the food chain. Humans are among the most vulnerable to mercury's potent ability to damage the central nervous system, causing lower intelligence, impaired hearing and speech, and decreased coordination. At low maternal mercury levels, fetuses may develop cerebral palsy, mental retardation and physical deformity even if the mother exhibits no outward symptoms. (continued)

Coal burning power plants are by far the largest source of mercury emissions. The atmospheric mercury is washed down by rain into our water sources. One gram of mercury deposited per year can contaminate a 75 acre body of water, making it dangerous for humans or wildlife to consume the fish. The proposed plant is anticipated to release approximately 100,000 grams of mercury per year. National research groups have recently recommended a moratorium on the construction of coal burning power plants. We must strive to reduce, not increase the release of this dangerous pollutant. W-YCMS-1/30d

In addition, the potentially carcinogenic effects by the emission of markedly increased amounts of radionuclides have not been adequately studied or addressed. Uranium and radon 226 are emitted by coal burning facilities and radon is present along with its degradation products in the fly ash. There have been reports substantiating higher incidences of leukemia surrounding coal fired plants, and these incidences are higher than around comparable nuclear facilities. There will be over 1,000 pounds of chloroform emitted from the plant yearly. This has been recently classified as a known carcinogen and has been totally unaddressed by the study. W-YCMS-1/30e

In addition to the study of the facility itself, the committee cannot accept "the blind eye" approach of the statement to the other obvious problems of pollution in York County. The impact of the York County Incinerator and its changing emission pattern have been ignored in any formulation. Proper assessment of other serious, but yet unstudied, industrial polluters have been ignored. W-YCMS-1/30f

Forty-five percent of the economy of York County is still dependent upon the agricultural industry. We do not believe that the environmental concerns as pertain to agriculture in regard to heavy metal deposition, CO2 emission, etc. have been adequately addressed, adding a possible further economic burden upon our patients, other than the obvious economic burden of increased incidences of environmentally related diseases. W-YCMS-1/30g

When this committee entered into discussion with Air Products in 1992, expressing our concerns, we were promised a reasonable level of communication and involvement in the process. When the project was transferred to Spring Grove, any form of a cooperative effort ceased. The Glatfelter Paper Company refused to participate in any health assessment of the community to help answer and alleviate our concerns. The material presented to us was, and still is, felt to be inadequate to prove the facility's safety to the community. The Draft Environmental Impact Statement reflects this

W-YCMS-1/30d

KEYWORDS:
Health effects
Mercury

Response: On a worldwide basis, electricity generation accounts for approximately 5 percent of the total mass of the approximately 6,000 metric tons of mercury emitted to the atmosphere each year. Anthropogenic emissions of mercury (i.e., emissions resulting from man-made sources and activities) amount to approximately 1,200 metric tons/yr, of which less that 60 metric tons (approximately 1 percent of the annual global mercury emissions) is attributable to United States utilities (*Douglas, 1994*). The combustion of petroleum is a major source of mercury emissions worldwide perhaps accounting for approximately two-thirds of all anthropogenic mercury emissions (*Fergusson, 1990*). Mercury emission factors for residual No. 6, a fuel oil in common use in the eastern United States, are estimated at 7.2×10^{-6} lbs/MMBtu (*EPA, 1993b*). For comparison, expected mercury emissions for the proposed facility would be 1.1×10^{-5} lbs/MMBtu.

As the commenter notes, environmental mercury (Hg) is a growing concern worldwide. Mercury (Hg) emissions levels for coal-burning power plants are a function of coal quality. By using washed coal, mercury emission rates for the proposed facility would be 40 to 60 percent lower than for comparable cogeneration plants reporting trace element emissions in the Best Available Control Technology (BACT)/Lowest Achievable Emission Rate (LAER) Clearinghouse database. Based on 100-percent load and 100-percent volatilization of mercury ("worst-case" assumptions), the maximum ground-level air concentration of mercury (Hg) attributable to operation of the proposed facility would be 2.1×10^{-4} $\mu g/m^3$. This air concentration is lower than the ambient mercury concentration in many remote or "pristine" regions (see *Fergusson, 1990*) (*Douglas, 1994*). Therefore, mercury contributions from the proposed project should not be expected adversely to effect human health at these levels.

W-YCMS-1/30e

KEYWORDS:
Carcinogens
Chloroform
Radionuclides
Radon
Health effects

Response: In considering new, more stringent emissions standards for radionuclides, the Environmental Protection Agency (EPA) (54 FR 51672) determined that risks due to radionuclide emissions from coal-fired boilers are sufficiently low that additional regulation was not warranted. The EPA is preparing a report to Congress on human health risks due to combustion of fossil fuels. In telephone conversations with the EPA, DOE has learned that the pending report would not substantively change the EPA's position with respect to radionuclide emissions from coal-fired power plants. Coal, as it is removed from the ground, has a significant radionuclide content which, if uncontrolled, would lead to stack emission levels which would require further emission limits. However, modern power plants are already required to control particulate emissions to a high degree (through electrostatic precipitators, fabric filter baghouses, wet scrubbers, etc.). These controls are precisely the types of controls which the EPA would consider effective in controlling radionuclide emissions from coal-fired utilities. Therefore, the EPA considers that radionuclide emissions from coal-fired power plants are already subject to the controls necessary to adequately protect human health. This current position reflects the position first taken by the EPA in 1984 and reaffirmed in 1989.

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Although risks from radionuclide emissions from coal-fired power plants are presumptively safe, a separate assessment of carcinogenic risks from exposure to radionuclide emissions from the proposed facility was conducted (*Weston 1994b*). The results of this assessment are discussed in Section 4.1.2.11 of the EIS and are separately tabulated in Table 4.1.22. One commenter noted a calculation error in the estimated radionuclide emissions. Corrections have been made to the Clean Air Act Assessment Package-1988 (CAP-88) modeling study, and have been incorporated in the FEIS (Table 4.1-12 in Section 4.1.2.8; Table 4.1-22 in Section 4.1.2.11).

By "radon-226", it is assumed that the commenter is referring to ^{226}Radium (^{226}Ra), a decay product in the ^{238}Uranium (^{238}U) series. Risks from ^{226}Radium (^{226}Ra) were included in the radionuclide assessment discussed previously. Radon (Rn) does occur naturally in coal as a decay product in both the ^{238}Uranium (^{238}U) series [^{222}Radon (^{222}Rn)] and ^{232}Thorium (^{232}Th) series [^{220}Radon (^{220}Rn)]. The principal exposure pathway for radionuclides emitted from coal-fired power plants is from particles deposited on the ground surface and through ingestion of substances in food (*Lamarre, 1995*). Air immersion appears to be an insignificant exposure pathway (*Tadmor, 1986*). Radon (Rn), an inert gas, poses a known inhalation risk, and occurs naturally in the environment; it also results from manmade sources and activities. One study (*Styron, et al, 1979*), measured the stack emission of ^{222}Radon (^{222}Ra) at the George Neal Power Plant in Sioux City, IA, and found the concentrations to be within the range of ambient air concentrations for ^{222} Radon (^{222}Rn) (0.03 to 3.0 picocuries per liter of air). Levels of this magnitude would pose no greater risk than breathing most indoor air. Lee, et al. (*1977*), as reported in Tadmor (op cit) suggested that ^{222}Radon (^{222}Rn) emissions from fly ash piles would pose an inhalation risk. However, as discussed in the EIS (Section 4.1.6.1), ash from the proposed project would be regularly transported to the Harriman Coal Corporation in Schuylkill County for use in mine reclamation. For these reasons, radon would not be expected to adversely affect human health.

As noted by the commenter, chloroform is classified as a human carcinogen. The proposed project has the potential to release 0.57 tons/yr of chloroform from the evaporative cooling tower. Because the initial human health risk assessment was focused on air emissions from the boiler stack, DOE requested a separate, supplemental human health risk assessment for air emissions from the cooling tower. The study, "Human Health Risk Assessment of Cooling tower Emissions Associated with the Operation of the York County Energy Partners Cogeneration Facility" *(Environ, 1994c)*, is summarized in Section 4.1.2.11 of the EIS. The expected carcinogenic risk from exposure to chloroform from the proposed project is 2×10^{-8} as shown in Table 4.1-23. This risk is well below the generally acceptable risk level (1×10^{-6}) adopted by EPA. Please also see response to Comment W-MK-1/28b.

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W-YCMS-1/30f

KEYWORDS:
Air quality
Cumulative effects

Response: Prevention of Significant Deterioration (PSD) analysis must be carried out for attainment areas and a PSD permit issued [in this case by the Pennsylvania Department of Environmental Resources (PADER)] when a source such as the proposed York County Energy Partners, L.P. (YCEP) project is planned to be built and operated. The reason for such PSD review and permitting is precisely not to turn "a blind eye" to other sources in the area, but to account for their contributions along with the proposed new source, and to ensure that any pollution increment is below a regulatory defined "allowable increment." These "allowable" increments are very small, and the PSD regulations are stringent. Section 4.1.2.6.2 of the EIS discusses the PSD analysis that was undertaken for the proposed YCEP project. The proposed YCEP project lies in a Class II attainment area for all of the criteria pollutants except ozone. Table 4.1-6 shows the regulatory Class II "Allowable PSD Increments," and both the increment consumption from the proposed YCEP project alone and from all regional sources including the proposed YCEP project. As can be seen in Table 4.1-6, the cumulative PSD increments from all sources were below the allowable increments.

In addition, as described in Section 4.1.2.3, the proposed YCEP project would lie within the Northeast Ozone Transport Region, which is classified as a marginal nonattainment area for ozone. Because the expected oxides of nitrogen (NO_x) emission rate of 1,437 tons/yr exceeds the 100 tons/yr threshold level for a major source, a total of 1,652 tons/yr of oxides of nitrogen (NO_x) emission reduction credits (ERCs) would need to be obtained to provide the 1.15 to 1 offset required by EPA air permitting regulations. A total of 1,700 ERCs would be obtained from a combination of the curtailment of the P. H. Glatfelter Company's Power Boiler No. 4, Reasonably Available Control Technology (RACT) modifications to that boiler, and ERCs acquired from the Transcontinental Gas Pipe Line Corporation in Delta, York County. The net result of the ERC requirement and the associated 1.15 to 1 offset would be a regional reduction of a minimum of 215 tons/yr of oxides of nitrogen (NO_x) emissions.

W-YCMS-1/30g

KEYWORDS:
Agriculture
Heavy metals

Response: Section 4.1.2.10 of the FEIS has been updated to include an analysis of impacts on agricultural land from the proposed facility.

inadequacy of information and similarly does not remotely answer our concerns. It has basically relied on compliance with existing EPA air quality data to answer the "health concern". It has ignored the fact that this standard is not adequate for this community. It has omitted, in particular, reference to the rest of our concerns, especially with regard to mutagenic and carcinogenic agents. What data is presented, is presented in fashion that is not interpretable by the average person or the scientific community. We have been asked to present hard data to substantiate our concerns, when in fact, the Department of Energy clearly knows that a credible epidemiological study would take many years to prepare.

W-YCMS-1/30h

In summary, the Environmental Impact Statement simply ignores most of the questions and concerns which were raised by the Environmental Impact Committee. We strongly believe that the potential for adverse health effects is high, especially for the more environmentally sensitive members of our patient population. We had hoped that there would have been a more fair and comprehensive assessment of this project. We adamantly oppose, and will continue to oppose, the construction of this facility.

W-YCMS-1/30h

KEYWORDS:
Carcinogens
Epidemiology
Health effects
Mutagens

Response: In assessing risks to human health from the proposed project, the EIS evaluated both carcinogenic and noncarcinogenic effects. While National Ambient Air Quality Standards (NAAQS) were one basis for assessing risks for less toxic substances for which the EPA has not published reference concentrations or doses, DOE did consider the scientific evidence that levels lower than the NAAQS may be necessary to adequately protect human health (especially for particle exposure). However, the proposed project would result in a net decrease in emissions of key criteria pollutants, including particulates, for which the Environmental Protection Agency (EPA) is considering a lower NAAQS. Therefore, the proposed project would not be expected to adversely affect human health regardless of a revision in the NAAQS.

Risks from carcinogenic agents are specifically addressed in Tables 4.1-21 and 4.1-23 of the EIS. The lifetime excess cancer risk from exposure to emissions from the proposed project is at the level which the EPA has deemed to be "presumptively safe." Therefore, the proposed project would not be expected to pose an unacceptable cancer risk to the population which would be potentially affected.

It was never intended by DOE that a prospective epidemiological study be conducted as a part of this Environmental Impact Study for the York County area, because this type of study would assess the health impacts of the project through time after the proposed facility was constructed and operating, which is contrary to the National Environmental Policy Act process being used as a decision-making tool. However, if valid and applicable epidemiological studies had been performed previously for the York population to assess the associations of factors such as air pollution on human mortality and morbidity, these would have been included for analysis in the EIS.

RT5 Box 504 P
Spring Grove Pa
17362

Jan. 29, 1995

Lucille Van Ostenbrun
Morgantown Energy Tech. Ct
3610 Collins Ferry Rd.
Morgantown, WV. 26507-0880

Re York County Energy Partners Cogeneration Facility

Dear Ms. Van Ostenbrun;

I am a North Codorus Township resident, living on Rocky Road. My residence would be extremely near the proposed cogeneration plant if erected. My residence is within sight of the P. H. Glatfelter Paper Mill. I have resided in my home for over 8½ year.

I have read portions of the Draft Environmental Impact Statement for the proposed Y.C.E.P Cogeneration Facility. I have no environmental or chemical degrees to challenge any numbers or specific data. I do however possess all five physical senses plus a good deal of common sense. Many of the conditions of the existing environment as stated in the Impact Report are incorrect. For example. Section 3 page 14. Fog and Ice Conditions. "There have been no documented reports of fogging and icing in the vicinity of the proposed project site as a result of the current P. H. Glatfelter Co.

W-DRS-2/6a

W-DRS-2/6a

Response: Please see the response to Comment D-62/8.

KEYWORDS:
Documentation
Fog and ice

questions." I question the phrasing first of all, ... No "documented" reports? what does this mean?? Of course there is a fogging problem in the area already!! I frequently leave between 7:00 and 7:30 AM to travel to work thinking it's a foggy morning ..... until I get past the Bratfeller mill. Then there is NO FOG all the way to York City. The local police dept. believes there is a fogging problem. A few years ago, a jacked-up four wheel drive truck was abandoned along the road in front of my home. I called North Codorus Township police to see if it could be removed. I was told that normally they could not tow a vehicle from the side of the road, however since "there is so much fog in your area it could create an accident, We'll have it removed.", which is what happened.

(continued)

Of course we have a fogging problem already! We also already have a noise pollution problem, a traffic problem and general air particle problem. We literally wash our homes on the weekends because of accumulated "air dirt". Again, I'm not a scientist But as a simple human being you asking me do I want to breathe, hear, smell and try to see through more contaminants? The answer is No!

W-DRS-2/6b

W-DRS-2/6b

KEYWORDS:
Noise
Transportation

Response: Please see the response to Comment D-283/20 for a discussion on noise and the response to Comment W-RB-1/24c for a discussion on traffic. As discussed in Section 4.1.2.3 of the EIS, particle loadings to the York air basin would be expected to decrease as a result of the proposed project.

I must conclude that if I, as a resident, can find erroneous statements in the Environmental Impact Statement, what else is not factual? I do not want to be a victim of misinformation. I do not want my children to have their health and the longevity of their lives compromised by this proposed plant. I have read health reports compiled by physicians and non profit health organizations that oppose this cogeneration plant project. It's frightening to know that most individuals, physicians, organizations, institutions who have no monetary gain at risk are opposed to the cogeneration plant; but the individuals, companies and unions who DO HAVE AN OPPORTUNITY FOR MONITARY GAIN just can't wait to push this project to completion.

W-DRS-2/6c

Please contact me if you need to have information of the realities of the living conditions near P. H. Glatfelter Mill and the proposed project site of York County Energy Partners Cogeneration Facility.

Most sincerely yours,

Alice R. Simonsen

W-DRS-2/6c

Response: Please see the response to Comment W-WHE-1/27g.

KEYWORDS:
Oversight
Quality
Review

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA GAME COMMISSION
2001 ELMERTON AVENUE
HARRISBURG, PA 17110-9797

ADMINISTRATIVE BUREAUS:
ADMINISTRATION 717-787-5670
AUTOMOTIVE AND PROCUREMENT DIVISION 717-787-6594
LICENSE DIVISION 717-787-2084
PERSONNEL DIVISION 717-787-7836
WILDLIFE MANAGEMENT 717-787-5529
INFORMATION & EDUCATION 717-787-6286
LAW ENFORCEMENT 717-787-5740
LAND MANAGEMENT 717-787-5818
REAL ESTATE DIVISION 717-787-6568
MANAGEMENT INFORMATION SYSTEMS 717-787-4076

January 30, 1995

Mr. Jan K. Wachter
Director, ES&H Program Support Division
DOE/METC
P.O. Box 880
Morgantown, WV 26507-0880

In re: Draft Environmental Impact Statement (DEIS)
Proposed York County Energy Partners Cogeneration Facility
York County, PA

Dear Mr. Wachter:

The Pennsylvania Game Commission has completed its review of the Draft Environmental Impact Statement for the above referenced project. Based on that review, a field view of the project site conducted on January 6, 1995 by Roland Bergner of my staff, and the meeting at our office on January 23, 1995, we concur with the selection of the Flood Control Property (FCP) alternative as the preferred electric interconnect corridor alternative. We feel that this alternative meets project needs and objectives with the least impacts to residences and private property owners. Even though there will be some impacts to wildlife habitat, these can be addressed through proper mitigation.

We wish to assist York County Energy Partners with the development of the wildlife mitigation plan during the final design process. As discussed at the meeting on January 23, there are certain items we wish to see incorporated into the mitigation plan. These are as follows: W-DM-1/30

1. The riparian areas along Codorous Creek which will be cleared for the transmission line should be planted with various low growing shrub species to replace lost wildlife habitat.

2. The construction of the transmission line through that portion of the FCP leased to the Pennsylvania Game Commission should be coordinated with our agency to avoid conflicts with hunting seasons, farming, and other management activities.

3. Wood duck nesting boxes and other waterfowl nesting structures should be placed along Codorous Creek to replace any large trees which will be removed in order to increase breeding habitat for these species. Also, kestrel nesting boxes, bat boxes, and other wildlife nesting/resting structures could be placed on the single-shaft steel or wooden poles which will support the transmission line.

4. We recommend that planting of warm season grass species be included in the wildlife habitat mitigation plan. Warm season grasses provide both food and cover for wildlife at different times of the year, and they survive with less moisture and fertility than cool season grasses.

5. Brush piles should be constructed with vegetation that is cleared/trimmed for pole and transmission line placement to provide cover for wildlife.

An Equal Opportunity Employer

W-DM-1/30

KEYWORDS:
Mitigation
Utility corridor
Vegetation
Wildlife

Response: Assuming a favorable Record of Decision (ROD) for the York County Energy Partners, L.P. (YCEP) proposed project's FEIS, one condition of the decision and subsequent funding would be completion and publication of a Mitigation Action Plan, based on suggested mitigation actions contained in the FEIS and selected for implementation by the ROD. The mitigation actions identified by the Pennsylvania Game Commission are listed in the FEIS in Section 4.4, Mitigation and Monitoring.

In our comments in relation to the Electric Interconnection Alternatives and Avoidance Study dated June 1994, we made reference to Section 4(f). We wish to delete this reference to Section 4(f) from our review. Even though the proposed transmission line will be constructed on FCP which is a recreation area and used by the public, Section 4(f) is included in the United Stated Department of Transportation Act of 1966 (amended 1968); and is used to evaluate federally-aided highway projects with involvement with public parks, recreation lands, and wildlife and waterfowl refuges.

Prior to initiating construction of the transmission line, we recommend that York County Energy Partners contact Mr. Roger L. Lehman, Chief, Game Land Planning and Development Division at (717) 787-9613, and Mr. Richard J. Skubish, Land Management Group Supervisor, through our Southeast Regional Office in Reading at (610) 926-3136. Mr. Lehman and Mr. Skubish wish to assist York County Energy Partners in regard to recommended plantings and other wildlife habitat mitigation measures in relation to the proposed project.

If you have any questions or need any additional information in regard to our comments, please contact Mr. Roland Bergner of my staff at (717) 783-4919.

Very truly yours,

Denver A. McDowell, Chief
Division of Environmental Planning
and Habitat Protection
Bureau of Land Management

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DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MD 21203-1715

March 13, 1995

Planning Division

Dr. Suellen A. Van Ooteghem
Safety and Health Program Support Division
U.S. Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
3610 Collins Ferry Road
Morgantown, West Virginia 26505

Dear Dr. Van Ooteghem:

Reference your agency's letter dated, November 17, 1994, requesting the Baltimore District's comments on the proposed York County Partners Cogeneration Facility, York County, Pennsylvania, Draft Environmental Impact Statement (DEIS). The comments provided below address the U.S. Army Corps of Engineers (Corps) areas of concern, including direct and indirect impacts on existing and/or proposed Corps projects, flood control hazard potential, and permit requirements under Section 404 of the Clean Water Act.

In accordance with the subject DEIS, portions of the proposed project would be located on Corps Indian Rock Dam flood control land. The c ssing of Corps lands for the proposed interconnection corridor is expected to have minimal impact on the area's flood control mission. However, the Corps requests the following conditions be met:

* Mitigation for impacts to wildlife shall be completed to the satisfaction of the Pennsylvania Game Commission (PGC) as referenced in their January 30, 1995 letter, to Mr. Jan Wachter (Enclosure 1). The PGC and Corps of Engineers must approve the final design of the mitigation plan prior to implementation. W-JFJ-3/13a

* Table 9-1 of the DEIS needs to reflect the requirement for a real estate easement from the Corps of Engineers for the crossing of Corps lands. W-JFJ-3/13b

In accordance with the subject report, portions of the proposed facilities will be located within the floodplain. New construction or major replacements within the flood plain requires full compliance with Executive Order (E.O.) No. 11988, Flood Plain Management, May 24, 1977; Federal Emergency Management Agency (FEMA) regulations; and other Federal, state, and local flood plain regulations. The objectives of the E.O. and the other floodplain regulations are to avoid the adverse effects of occupying and modifying the floodplain and to avoid direct and indirect support of development in the floodplain. The E.O. requires that activities not be located in the floodplain unless it is the only practicable alternative. Activities which must be located in the floodplain must incorporate measures to: (1) reduce the hazard and risks associated with floods, (2) minimize the adverse effects on human health, safety, and welfare, and (3) restore and preserve the natural and beneficial values of the floodplain. While portions of the proposed facilities are located within the 100-year floodplain there is no significant impact on the floodplain. The alternatives presented would have no impact on the floodplain. W-JFJ-3/13c

W-JFJ-3/13a

KEYWORDS:
Flood control property
Mitigation
Wildlife

Response: Please see the response to Comment W-DM-1/30, which addresses the Pennsylvania Game Commission (PGC) letter. The suggested mitigation by the PGC has been included in Section 4.4 of the FEIS. The PGC and the U.S. Army Corps of Engineers (ACOE) will have the opportunity to comment on the Mitigation Action Plan to be prepared by DOE in the event of a favorable Record of Decision for the proposed project.

W-JFJ-3/13b

KEYWORDS:
Easements
Flood control property

Response: Table 9-1 in the FEIS has been updated to include an easement to cross ACOE Flood Control Property.

W-JFJ-3/13c

KEYWORDS:
Floodplains

Response: The comment is noted.

In accordance with the National Flood Insurance Program and Related Regulations, October 1, 1988, Section 60.3, published by the FEMA, construction/replacement of water supply facilities and/or sanitary sewage systems within flood-prone areas should be designed to minimize or eliminate infiltration of flood water into facilities. Sanitary sewage systems should also be designed so on-site waste disposal systems are located to avoid impairment to them or contamination from them during flooding.

The DEIS recognizes the need for floodplain evaluation and describes procedures to be used for the evaluation. The results of these evaluations should be documented and coordinated with Federal, state, and local water resource agencies before the final design of the proposed facilities is selected. W-JFJ-3/13d

Certain activities in the waters of the United States, and jurisdictional wetlands, require Department of the Army permits from the Corps of Engineers. Corps regulations (33 CFR 320 through 330 and 33 CFR 230 and 325 (Appendix B)) require full compliance with the National Environmental Policy Act (NEPA) of 1969 during the review and evaluation of permit applications. To the maximum extent possible, the Corps will accept the information presented in NEPA documents for evaluating permit applications. Once the preferred alignment is determined for the utility corridors, Department of the Army authorization will be required for any discharge of dredged or fill material into waterways or wetlands; as well as for any aerial crossing of the Codorus Creek. It is requested that you contact Mr. John Gibble, River Basin Permits Section, Regulatory Branch, at (410) 962-1846, for information and guidance on permit application completion and submittal. Permit application must be made 90 days in advance of work in waterways/wetlands to allow sufficient time for joint Pennsylvania/Corps Process to work effectively. Further comments concerning the review of NEPA documentation by Regulatory Branch are enclosed (Enclosure 2). W-JFJ-3/13e

If you have any questions on this matter, please contact me or my action officer, Mr. Larry Lower, at (410) 962-4995.

Sincerely,

Harold L. Dolson

Dr. James F. Johnson
Chief, Planning Division

Enclosures

W-JFJ-3/13d

KEYWORDS:
Flood control property
Floodplains

Response: Floodplain evaluations have been conducted pursuant to Executive Order 11988 (Floodplain Management) and DOE's procedures for compliance with floodplains/wetlands environmental review requirements (10 CFR Part 1022). The potential impacts and mitigation measures associated with the proposed project within identified flooplains are discussed in Sections 4.1.4.5 and 4.1.14.4 of the EIS. This information has been provided to Federal, state, and local water resource agencies.

W-JFJ-3/13e

KEYWORDS:
Floodplains
Permits

Response: As detailed in Table 9-1, YCEP would obtain all necessary permits, including those required from the Army Corps of Engineers for construction of the proposed project.

COPY

January 30, 1995

Mr. Jan K. Wachter
Director, ES&H Program Support Division
DOE/METC
P.O. Box 880
Morgantown, WV 26507-0880

In re: Draft Environmental Impact Statement (DEIS)
Proposed York County Energy Partners Cogeneration Facility
York County, PA

Dear Mr. Wachter:

The Pennsylvania Game Commission has completed its review of the Draft Environmental Impact Statement for the above referenced project. Based on that review, a field view of the project site conducted on January 6, 1995 by Roland Bergner of my staff, and the meeting at our office on January 23, 1995, we concur with the selection of the Flood Control Property (FCP) alternative as the preferred electric interconnect corridor alternative. We feel that this alternative meets project needs and objectives with the least impacts to residences and private property owners. Even though there will be some impacts to wildlife habitat, these can be addressed through proper mitigation.

We wish to assist York County Energy Partners with the development of the wildlife mitigation plan during the final design process. As discussed at the meeting on January 23, there are certain items we wish to see incorporated into the mitigation plan. These are as follows:

1. The riparian areas along Codorous Creek which will be cleared for the transmission line should be planted with various low growing shrub species to replace lost wildlife habitat.

2. The construction of the transmission line through that portion of the FCP leased to the Pennsylvania Game Commission should be coordinated with our agency to avoid conflicts with hunting seasons, farming, and other management activities.

3. Wood duck nesting boxes and other waterfowl nesting structures should be placed along Codorous Creek to replace any large trees which will be removed in order to increase breeding habitat for these species. Also, kestrel nesting boxes, bat boxes, and other wildlife nesting/resting structures could be placed on the single-shaft steel or wooden poles which will support the transmission line.

4. We recommend that planting of warm season grass species be included in the wildlife habitat mitigation plan. Warm season grasses provide both food and cover for wildlife at different times of the year, and they survive with less moisture and fertility than cool season grasses.

5. Brush piles should be constructed with vegetation that is cleared/trimmed for pole and transmission line placement to provide cover for wildlife.

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In our comments in relation to the Electric Interconnection Alternatives and Avoidance Study dated June 1994, we made reference to Section 4(f). We wish to delete this reference to Section 4(f) from our review. Even though the proposed transmission line will be constructed on FCP which is a recreation area and used by the public, Section 4(f) is included in the United Stated Department of Transportation Act of 1966 (amended 1968); and is used to evaluate federally-aided highway projects with involvement with public parks, recreation lands, and wildlife and waterfowl refuges.

Prior to initiating construction of the transmission line, we recommend that York County Energy Partners contact Mr. Roger L. Lehman, Chief, Game Land Planning and Development Division at (717) 787-9613, and Mr. Richard J. Skubish, Land Management Group Supervisor, through our Southeast Regional Office in Reading at (610) 926-3136. Mr. Lehman and Mr. Skubish wish to assist York County Energy Partners in regard to recommended plantings and other wildlife habitat mitigation measures in relation to the proposed project.

If you have any questions or need any additional information in regard to our comments, please contact Mr. Roland Bergner of my staff at (717) 783-4919.

Very truly yours,

Denver A. McDowell, Chief
Division of Environmental Planning
and Habitat Protection
Bureau of Land Management

RB/smp
cc: Grabowicz
Lehman
Reg. Dir. Moore, SE, Atten: FAS Killough
Acting LMS Metz
Arway, PFBC
Kulp, USFWS
Brown, COE, Balt. Dist.
Zomok, DER, SC Reg. Office.
Skubish, LMGS

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DEC 1 : 1994

CENAB-OP-RR (1145)

MEMORANDUM THRU

Acting Chief, CENAB-OP-RR

Assistant Chief, CENAB-OP-R

Chief, CENAB-OP-R

Chief, CENAB-OP-P

Assistant Chief, CENAB-OP

FOR Chief, CENAB-PL

SUBJECT: Preliminary Review of Draft Environmental Impact Statement for Proposed York County Cogeneration Facility

1. I have reviewed the Draft Environmental Impact Statement (DEIS) for the proposed project, my findings and answers to your concerns are as follows, based on a once-over reading of the document:

a. The DEIS satisfactorily addresses a need and purpose for the proposed plant.

b. There is no overriding environmental concern that would rule out the preferred alternative for siting the proposed plant at Spring Grove, York County, Pennsylvania.

c. In addition to the preferred alternative for siting the plant, the DEIS satisfactorily described the no-action alternative. Only one other site location alternative was discussed. Other plant location alternatives may exist. W-JFJ-3/13f

d. The DEIS addresses alternatives for the plant site and utility line corridor separately. This appears to be appropriate as several different utility line routes could service the plant at the preferred location.

e. The utility line routes identified as alternatives appear to be satisfactory for review. The preferred alternative may pose minor adverse impacts to water quality in Codorus Creek. These impacts include stream warming, and increased run-off actuated by clearing an area of riparian forest. However, considering the extremely degraded water quality of Codorus Creek this may not be an important consideration. W-JFJ-3/13g

W-JFJ-3/13f

KEYWORDS:
No-action alternative
Site alternative

Response: Please see the responses to Comments D-37/16, D-121/14, D-141/15, and W-RJC-1/30m.

W-JFJ-3/13g

KEYWORDS:
Alternatives
Utility corridors

Response: It is noted that minor impacts to Codorus Creek water quality may result upon clearing of the riparian forest at the three stream crossings. The loss of shade could increase the water temperature; however, these increases are expected to be very minor due to the rate of stream flow, heat transfer considerations, and the limited removal of riparian forest at the stream crossings. To the extent practicable, run-off would be minimized through good engineering practices.

CENAB-OP-RR (1145)
SUBJECT: Preliminary Review of Draft Environmental Impact Statement for Proposed York County Cogeneration Facility

f. The DEIS identifies four possible alternatives for the 115KV utility corridor and three variations of the preferred alternative. These satisfactorily address the spirit of the 404(b)(1) guidelines.

g. There appears to be adequate documentation contained in the DEIS for NEPA and 404 reviews of the project,

h. The limits of Waters of the United States, including jurisdictional wetlands are appropriately documented for the plant site. Wetlands identified in the DEIS are comparable to those confirmed by the Baltimore District. On 21 November 1994, I inspected a delineation of Waters of the United States, including jurisdictional wetlands, for the preferred power-line right-of-way. This inspection indicated that the delineation was performed correctly and accurately.

i. In section 9 of the DEIS, Approval/Permits Needed, mentions use of Nationwide Permits. It is initially anticipated that a Letter of Permission Permit (LOP) may be required for crossing Codorus Creek, a Section 10 waterway. Also, because the proposed project is not a hydropower project, the Baltimore District will retain Section 10 and Section 404 authority over impacts pursuant to the Federal Power Action of 1920. W-JFJ-3/13h

2. Any minor impacts should be mitigated using lands of P.H. Glatfelter, Inc., York County Energy Partners, private lands. W-JFJ-3/13i

3. Mitigation for impacts to aquatic resources should be defined. Theses actions should focus on restoring or improving water quality in Codorus Creek to a minimally acceptable level where the stream supports reproduction for a warm water fishery. W-JFJ-3/13j

JOHN A. GIBBLE, Ecologist
River Basin Permits Section

W-JFJ-3/13h

KEYWORDS:
Codorus Creek
Permits

Response: The comment is noted. Table 9.1 in the FEIS has been revised to reflect this information.

W-JFJ-3/13i

KEYWORDS:
Mitigation

Response: The comment is noted. Where appropriate, mitigation (for wetland areas) would include the use of lands owned by the P. H. Glatfelter Company.

W-JFJ-3/13j

KEYWORDS:
Aquatic resources
Mitigation

Response: The FEIS has been revised to more comprehensively present the potential effects on aquatic resources (see Section 4.1.5.1). The effects to aquatic resources result not from the proposed facility's introduction of new or additional contaminants into the Codorus Creek, but rather to the concentration of existing pollutants due to the evaporation of water in the proposed project's cooling tower. It appears that temperature may be the most important parameter influencing the nature of the aquatic community downstream of the P. H. Glatfelter Company's discharge point. As such, the proposed project is expected to reduce the thermal load to Codorus Creek, and could theoretically improve the aquatic community present downstream of the P. H. Glatfelter Company's discharge. However, the reduction in stream flow, especially during low-flow conditions, could affect the stream's physical and chemical (especially dissolved solids) characteristics. Mitigation of low-flow events occurs through the SRBC's requirement of flow augmentation from Lake Marburg. Under the requirements of P. H. Glatfelter Company's SRBC permit, the minimum flow during a severe summer drought may not be reduced below 7.62 cfs at the mill pond dam. DOE may require monitoring of the stream flow below the P. H. Glatfelter Company's discharge point to obtain a more expansive database on (1) stream flows and (2) water quality. This information would be used to verify findings reached in the FEIS regarding the occurrence and effect of low-flow conditions.

REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS:	Do you wish to make an oral statement at this meeting?
JOHN A.W. CARLISLE 322 PEYTON RD York PA 17403	☑ YES ☐ NO
PHONE: 717-848-3543	Do you plan to submit a written statement? ☐ YES ☑ NO
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION:	Whom are you representing? ☑ Self ☐ Federal, State or Local Government Agency ☐ Organization ☐ Other

COMMENTS:
I SUPPORT THE PROJECT

REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS:	Do you wish to make an oral statement at this meeting?
mr mrs wm Mangold 2445 Welgewood Way York Pa 19404	☐ YES ☑ NO
PHONE: 717-792-4930	Do you plan to submit a written statement? ☐ YES ☐ NO
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION:	Whom are you representing? ☑ Self ☐ Federal, State or Local Government Agency ☐ Organization ☐ Other

COMMENTS:
We fight on! It seems to me a minority of people are trying to force the margain to except the projet that no one wants. How many times does this project have to be moved before you understand we don't want this old dinosaur

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REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS:	Do you wish to make an oral statement at this meeting? ☐ YES ☒ NO
George R. Lippert 731 Chestnut St. York, PA 17403	Do you plan to submit a written statement? ☐ YES ☒ NO
PHONE: 848-6377	
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION: Lippert Industries OWNER	Whom are you representing? ☒ Self ☐ Federal, State or Local Government Agency ☐ Organization ☐ Other
COMMENTS: My attendance is to oppose the proposed Cogeneration project.	

REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS:	Do you wish to make an oral statement at this meeting? ☒ YES ☐ NO
Terry Peck 330 Middlesex Rd. Carlisle PA 17013	Do you plan to submit a written statement? ☒ YES ☐ NO
PHONE: 717-249-5940	
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION: Business Agent Local #520	Whom are you representing? ☐ Self ☐ Federal, State or Local Government Agency ☒ Organization ☐ Other
COMMENTS: we feel the job will be beneficial to area and would like to build the project with Local tradesmen.	

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REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS:
JEFF KEARS
RD #1 BOX 760
NEW FREEDOM PA 17349

PHONE: 235-2508

Do you wish to make an oral statement at this meeting?
☐ YES ☑ NO

Do you plan to submit a written statement?
☐ YES ☑ NO

NAME OF ORGANIZATION OR AGENCY and YOUR POSITION:
OPPOSED

Whom are you representing?
☑ Self ☐ Federal, State or Local Government Agency
☐ Organization ☑ Other FAMILY

COMMENTS:
THIS AREA IS ALREADY INUNDATED WITH POLLUTING INDUSTRY. MORE RESTRICTIONS ARE NEEDED TO PROTECT THE ENVIRONMENT. THIS IS ANOTHER CASE OF RICH PEOPLE WHERE LOCAL RESIDENTS SUFFER.

W-JL-1/18

REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS:
Dale Fisher
5170 Pine Hill Rd. Dover, PA

PHONE: 717 292-5531

Do you wish to make an oral statement at this meeting?
☐ YES ☑ NO

Do you plan to submit a written statement?
☐ YES ☑ NO

NAME OF ORGANIZATION OR AGENCY and YOUR POSITION: Local 13 Boilermakers member

Whom are you representing?
☑ Self ☐ Federal, State or Local Government Agency
☐ Organization ☐ Other

COMMENTS: I am in favor of this plant being constructed.

W-JL-1/18

KEYWORDS:
Cumulative effects

Response: The effects of combined pollution sources in the York area have been anaylzed in Chapter 6 of the EIS (Cumulative Effects). In particular, DOE analyzed the cumulative effects on air resources from operations which are currently operating and those that could be operating in the foreseeable future.

REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS:	Do you wish to make an oral statement at this meeting?
Laurie F. Leaas R.D 1 Box 760 New Freedom, PA 17349	☐ YES ☑ NO
PHONE:	Do you plan to submit a written statement? ☑ YES ☐ NO
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION:	Whom are you representing? ☐ Self ☐ Federal, State or Local Government Agency ☐ Organization ☑ Other Family

COMMENTS: Very suspicious of health risks involved. You say have looked deeply into this matter- but communities have heard this numerous times from big corporations & DEPARTMENT OF ENERGY; When in fact years later, very real health problems (cancers, birth defects, etc.) occur.

Also, we need to start caring for our earth. We are too often blinded by $ signs.

W-LFL-12/14

REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS:	Do you wish to make an oral statement at this meeting?
LINDA S. SHISSLER R028 BOX 176N YORK, PA. 17404	☐ YES ☑ NO
PHONE: 717-225-3538	Do you plan to submit a written statement? ☑ YES ☐ NO
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION: S.T.O.P. SEC./TREAS.	Whom are you representing? ☑ Self ☐ Federal, State or Local Government Agency ☐ Organization ☐ Other

COMMENTS:
It would be nice & good policy to have had much more time to prepare for this instead of short term railroading

W-LSS-12/14

W-LFL-12/14

KEYWORDS:
Health effects

Response: The health risk assessment prepared for the proposed project (summarized in Section 4.1.2.11 of the EIS) followed the methodolgy consistent with EPA guidance. Emissions from the proposed project would not be expected to adversely affect human health. This conclusion is similar to the results from a comprehensive study conducted by the Electric Power Research Institute (EPRI) that analyzed potential health effects from 594 existing power plants *(Lamarre, 1995)*.

W-LSS-12/14

KEYWORDS:
NEPA
Schedule

Response: Please see the responses to Comments D-31/22, and D-32/13.

REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS: ANN C. PETTIGREW, V.M.D. R.D. 1 BOX 164-6A SEVEN VALLEYS, PA. 17360	Do you wish to make an oral statement at this meeting? ☐ YES ☑ NO Do you plan to submit a written statement? ☐ YES ☐ NO ?
PHONE: 792-4020	
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION:	Whom are you representing? ☑ Self ☐ Federal, State or Local Government Agency ☐ Organization ☐ Other

COMMENTS: My concern w the cogen plant is the possible health hazard posed by the emmissions. York County already is notorious for having a very high cancer rate. Spring Grove has a reputation of having a higher than average number of brain tumors in their population. How can we be sure that this plant is not going to increase the rate of cancer in the population in Spring Grove and surrounding areas? What studies have been done? W-ACP-12/15a

Also, I feel that doing wind current studies in Harrisburg is ludicrous and ridiculous no sense whatsoever! Until studies are done at the proposed site, the project should not be allowed to go forth. Will studies be done here and, if so, will the results be made public prior to start-up of the construction of the plant? W-ACP-12/15b

Thank you for your time.

Ann C. Pettigrew

W-ACP-12/15a

Response: Please see the response to Comment D-248/5.

KEYWORDS:
Baseline
Cumulative effects
Health effects

The human health risk assessments conducted for the proposed project are summarized in Section 4.1.2.11 of the EIS. In order to provide the opportunity for multiple validations of findings, a variety of approaches (e.g., models, review of epidemiological studies) was used to determine health risk to the York community. The findings from these various studies suggest that carcinogenic risks to the York community from the proposed facility would be within the range deemed to be acceptable by the Environmental Protection Agency (EPA).

W-ACP-12/15b

Response: As described more fully in the response to Comment D-155/11, the air quality modeling that was undertaken used wind measurements and other meteorological data taken at a nearby site at West Manchester [10 km (6 mi) northeast] as well as meteorological data from Harrisburg and upper wind data from Dulles International Airport in Virginia. The use of these data was considered to be appropriate. There are no plans to undertake wind measurements at the Spring Grove site.

KEYWORDS:
Meteorological data
Modeling

The Department of Energy is interested in obtaining your written comments on the Draft EIS for the proposed York County Energy Partners Cogeneration Facility in York County, Pennsylvania. Please provide your comments in the space below and print your name and address on the reverse side of this card. Your cards can be deposited in the boxes provided at the public hearing or mailed directly to the address on the reverse side.

I BELIEVE IN AND SUPPORT THIS PROJECT AND HOPE THERE WILL BE MORE LIKE IT IN THE FUTURE. IT IS VERY IMPORTANT THAT WE UPGRADE OUR POWER PRODUCING PLANTS TO THE MODERN MORE STRINGENT STANDARDS. AS WE KEEP REPLACING THE OLD WITH THE NEW WE WILL MAINTAIN THE POWER AVAILABILITY WE ARE USED TO IN THIS COUNTRY AND IMPROVE OUR AIR QUALITY FOR YEARS TO COME. I AM FROM HARRISBURG AND WOULD BE HAPPY TO SEE A SIMILAR PLANT BUILT IN HARRISBURG OR THE SURROUNDING AREA. I HOPE THE FACTS AND TRUTH WILL PREVAIL OVER THE EMOTIONS OF THE IGNORANT.

Name: JOHN T. McGUROY

Address: 2332 N. 5TH ST.

HARRISBURG PA

17110

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Department of Energy
Morgantown Energy Technology Center (METC)
P.O. Box 880
3610 Collins Ferry Road
Morgantown, West Virginia 26507-0880

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(Voluntary)

NAME AND MAILING ADDRESS: Paul Shaffer, 2511 Sky Top Trail, Dover, PA 17315	Do you wish to make an oral statement at this meeting? ☐ YES ☐ NO
PHONE: (717) 292-1356	Do you plan to submit a written statement? ☐ YES ☐ NO
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION:	Whom are you representing? ☒ Self ☐ Federal, State or Local Government Agency ☐ Organization ☐ Other

COMMENTS:
You haven't provided York Co. Medical personnel with information requested and you haven't satisfied their objections.
You say 1 in 1 Million particles of cancer causing material would be in the air. But the particles would not be distributed equally. Certain corridors or areas would be subjected to an unknown increase.

W-PS-12/16

REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS: Michael F. Fenton, 11 E. Market St, York, PA. 17401	Do you wish to make an oral statement at this meeting? ☐ YES ☒ NO
PHONE: (717) 854-1366	Do you plan to submit a written statement? ☐ YES ☐ NO ?
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION: Attorney	Whom are you representing? ☐ Self ☐ Federal, State or Local ☑ STOP Inc. Government Agency ☐ Organization ☐ Other

COMMENTS:
STOP This Project !

W-PS-12/16

Response: Please see the responses to Comments D-129/6, D-241/24, and D-275/22.

KEYWORDS:
Health effects
Particles

(Voluntary)

NAME AND MAILING ADDRESS:	Do you wish to make an oral statement at this meeting?
JOEL L SEARS 613 RED OAK DR BEL AIR MD 21014	☒ YES ☐ NO Do you plan to submit a written statement? ☐ YES ☒ NO
PHONE: 410-638-0794	
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION: FLEET TECHNOLOGIES, INC, PRES. BEL AIR MD	Whom are you representing? ☐ Self ☐ Federal, State or Local Government Agency ☒ Organization ☐ Other
COMMENTS: WE PLAN TO RELOCATE TO YORK – AS LONG AS THE CO-GEN PLANT IS BUILT WITH STATE-OF-THE-ART TECHNOLOGY OR NOT AT ALL.	W-JLS-12/94

REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS:	Do you wish to make an oral statement at this meeting?
Jennifer Funk 1350 Governor Dr York Pa. 17404	☐ YES ☒ NO Do you plan to submit a written statement? ☐ YES ☒ NO
PHONE: 764-4836	
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION:	Whom are you representing? ☒ Self ☐ Federal, State or Local Government Agency ☐ Organization ☐ Other
COMMENTS: I Am in FAVOR of the plant IF Improved Technology IS used. I Am opposed to the plan as presented because the Technology IS obsolete.	W-JF-1/18

W-JLS-12/94

KEYWORDS:
BACT
Commercialization status

Response: As outlined in Section 1.3.1 of the FEIS, there are various unique aspects associated with the proposed project. PADER is responsible for determining the Best Available Control Technology (BACT) for installation/incorporation into the proposed facility. Please see also the responses to Comments D-39/13, D-71/13, and W-RJC-1/30d.

W-JF-1/18

KEYWORDS:
Alternative technologies

Response: Please see the responses to Comments D-39/13, D-100/9, and W-RJC-1/30d.

REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS: GILBERT L. SNYDER 6308 BLUE RIDGE AVE. HARRISBURG PA 17112	Do you wish to make an oral statement at this meeting? ☐ YES ☐ NO Do you plan to submit a written statement? ☐ YES ☐ NO
PHONE:	
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION: BUS. AGENT LOCAL 542 OPER ENG.	Whom are you representing? ☐ Self ☐ Federal, State or Local Government Agency ☒ Organization ☐ Other
COMMENTS: would like to see this project go forward.	

REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS: CURVIN F. TYSON 4983 N. SHERMAN ST. EXT. MT. WOLF, PA. 17347	Do you wish to make an oral statement at this meeting? ☒ YES ☐ NO Do you plan to submit a written statement? ☐ YES ☐ NO
PHONE: 717-266-5075	
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION: Salesman - Dale Realty Company Contract w/ Working Question of Operating Engineers	Whom are you representing? ☒ Self ☐ Federal, State or Local Government Agency ☐ Organization ☐ Other
COMMENTS: IT is something we are going to need in the future, I've worked for Met-Ed, G.P.U. Pub-Pr Electric & PP&L	

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REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS:	Do you wish to make an oral statement at this meeting? ☐ YES ☐ NO
Edward Keener 68 Fulton Rd. Airville Pa 17302	Do you plan to submit a written statement? ☐ YES ☐ NO
PHONE: 717-862-3520	
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION: Int. Union of Operating Engineers member	Whom are you representing? ☒ Self ☐ Federal, State or Local Government Agency ☑ Organization ☐ Other

COMMENTS: the existing atomic plants in the east only have 20 yrs left to operate, where are we going to get electric if we don't soon start doing some building. There is a rumor that the contract will be open shop. If there is worry about cost overruns and poor workmanship, using non-union labor is a proven way to accomplish just that. Why would you want construction workers to live in poverty.

WRITTEN-342

REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS:	Do you wish to make an oral statement at this meeting? ☐ YES ☐ NO
Harold V. Corsa Jr. 312 Brooklyn Dr. York, Pa. 17402	Do you plan to submit a written statement? ☑ YES ☐ NO
PHONE: 717 840 4391	
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION: I.U.O.E. Operating Engineer.	Whom are you representing? ☑ Self ☐ Federal, State or Local Government Agency ☐ Organization ☐ Other

COMMENTS: I feel that we need this plant for many, many reasons, & will submit a letter & explain in more detail, but I feel that in York-York Co. anyone is for that we need this Plant & we need skilled people to build this Plant.

WRITTEN-343

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REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS:	Do you wish to make an oral statement at this meeting?
Jeff Lears RD#1 Box 260 New Freedom, PA 17349	☐ YES ☒ NO Do you plan to submit a written statement? ☐ YES ☐ NO
PHONE: 235-2505	
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION: SELF CITIZEN	Whom are you representing? ☒ Self ☐ Federal, State or Local Government Agency ☐ Organization ☐ Other

COMMENTS:

The cost of the waste-to-energy plant is excessive + economically not feasible. The cost of the project to the taxpayers is not acceptable. This technology needs to be developed but not here. This technology is not the most appropriate for this area. The financial burden on the taxpayers is unacceptable.

69

W-JL-1/18

REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS:	Do you wish to make an oral statement at this meeting?
Barbara J. Rooney 127 Strathcona Dr, S. York, PA 17403	☐ YES ☒ NO Do you plan to submit a written statement? ☐ YES ☒ NO
PHONE: 717-843-3498	
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION: PA Nurses Assoc Against burning trash	Whom are you representing? ☒ Self ☐ Federal, State or Local Government Agency ☐ Organization ☐ Other

COMMENTS:

Because Florida had a referendum they overwhelmingly fought + won against building the Co-Gen plant for many reasons + one being the outdated technology in a plan on the "Books for over 10 years. York Co does not have such a political process and has voted low, with the support of all significant health organizations, [illegible]

W-BJK-1/18

W-JL-1/18

Response: Please see the response to Comment D-83/5.

KEYWORDS:
Need for power

W-BJK-1/18

Response: For information on the referendum in Tallhassee, FL, please see the responses to Comments D-326/19. For information on the commercialization status of atmospheric circulating fluidized bed (CFB) technology, please see the response to Comment D-39/13. For information on DOE's responsibility to fund cost overruns, please see the response to Comment D-300/11. DOE has addressed in this FEIS the comments received by York County medical societies. Please see the response to Comment D-85/23 for a listing of responses related to the concerns of York County's medical societies.

KEYWORDS:
Commercialization status
Cost overrun
Health community
Referendum

REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS: LAWRENCE J CORSI 683 Chestnut St York PA 17403	Do you wish to make an oral statement at this meeting? ☐ YES ☑ NO
PHONE: 717-843-3221	Do you plan to submit a written statement? ☐ YES ☑ NO
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION: I Voe	Whom are you representing? ☑ Self ☐ Federal, State or Local Government Agency ☐ Organization ☐ Other
COMMENTS: Pa. & York Co. need this Plant + need it to be built by Skilled Labor, there is no sense of people fooling themselves, We, the People need it Now!!	

NEPA Hrg #391

REGISTERED ATTENDANCE AT PUBLIC MEETING 1/18/95

(Voluntary)

NAME AND MAILING ADDRESS: STEPHEN E. BAKER 2252 Dixie Dr. YORK, PA 17402	Do you wish to make an oral statement at this meeting? ☒ YES ☐ NO
PHONE:	Do you plan to submit a written statement? ☒ YES ☐ NO
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION: S.P.E.A.C. So PA ENVIRONMENTAL AWARENESS COALITION	Whom are you representing? ☐ Self ☐ Federal, State or Local Government Agency ☑ Organization ☐ Other
COMMENTS: COULD I PLEASE RECEIVE A COPY OF ALL OF THE SPEAKERS WHO SPOKE TONIGHT - TO: S.P.E.A.C. P.O. BOX 1223 YORK, PA 17405 ATTN: STEPHEN E. BAKER	

NEPA Hrg #391

W-SEB-1/18

W-SEB-1/18

KEYWORDS:
Documentation
Speakers

Response: A list of speakers for each night of public hearings has been included at the beginning of the Transcript of Proceedings for that particular day. These transcripts are available in the public reading rooms (Volume III, Appendix A).

REGISTERED ATTENDANCE AT PUBLIC MEETING

(Voluntary)

NAME AND MAILING ADDRESS: Jeff Kirkpatrick, The York Dispatch, 205 N. George St. York PA 17401	Do you wish to make an oral statement at this meeting? ☐ YES ☒ NO
PHONE: 717-854-1575	Do you plan to submit a written statement? ☐ YES ☒ NO
NAME OF ORGANIZATION OR AGENCY and YOUR POSITION: York Dispatch	Whom are you representing? ☐ Self ☐ Federal, State or Local Government Agency ☒ Organization ☐ Other
COMMENTS: Please send copy of Draft EIS + any other relevant info to address listed.	

W-YD-1/1

W-YD-1/18 ***Response:*** Comment is noted.

KEYWORDS:
Document

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VOLUME IV(C): Written Testimony Submitted at the Public Hearings

VOLUME IV(C): WRITTEN TESTIMONY SUBMITTED AT THE PUBLIC HEARINGS

This Section of Volume IV contains reproductions of written testimony received during the public hearings (December 14, 15, and 16, 1994, and January 18, 1995). This testimony includes prepared statements and exhibits submitted by attendees of the public hearings.

For written testimony, the convention is to assign the comment a prefix of "DW" or "JW" (denoting written testimony submitted either in December or January), followed by a sequential numeral. For instance, the designation of JW-15 denotes the fifteenth specific comment contained in written testimony submitted at the January public hearing.

In responses to comments, three acronyms referring to environmental impact statements are used. "DEIS" refers specifically to the Draft Environmental Impact Statement published in November 1994; "FEIS" refers to this Final Environmental Impact Statement; "EIS" refers to both the DEIS and the FEIS, in general. Thus, when a reference to the DEIS, FEIS, or EIS is made in a response to a comment, that information can be found only in the DEIS, only in the FEIS, or in both documents, respectively.

DOE addressed the pertinent and relevant comments contained in the written testimony. However, because prepared statements were generally read into the record by their preparers, often the written testimony duplicated the testimony contained in Volumes II and III: Oral Comments on the DEIS Submitted During the Public Hearings. All written testimony, including that not read into the record was given full consideration by DOE and is responded to in this Section. The Department appreciates receiving all comments, and those not specifically marked for response are recorded here as being received, considered, and noted for the record by DOE.

Comments by Spring Grove Mayor Richard A. Thieret
at Draft Environmental Impact Statement (EIS)
Public Hearing
14-16 December 1994

My name is Dick Thieret. And, as most of you know, I am Mayor of Spring Grove -- and have been for the past 20-plus years. I've also lived in the Borough for 40 years; my wife has lived here all her life. So we both care very, very much about our community.

I am here this evening because I have reviewed the Department of Energy's Draft Environmental Impact Statement. As a result of the DOE's report, I want to reiterate my support for the York County Energy Partners' cogeneration project.

There are three key reasons why I support the project. They are environmental impact, the economic benefits, and the need for power.

In terms of the environment, the DOE reports the project will reduce our most serious air emissions which impact the environment and public health. With the curtailed use of Glatfelter's No. 4 boiler, sulfur dioxide, particulate emissions, and nitrogen oxides will all be

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reduced. The report notes that some emissions may increase. I understand, however, that the project sponsors will be required to ensure that these emissions will have to meet national and state requirements.

In terms of its economic benefits, the project will bring in hundreds of construction jobs -- and I feel confident a good portion of these workers will be from York County. Permanent jobs also will be created. Goods and services to support the project will be purchased in our area. Finally, the project will pay about a half-million dollars annually in property taxes to the Spring Grove School District and to York County. That kind of financial support takes an added burden off our taxpayers.

As to the need for power, we all know that Met-Ed has reported a need for additional electricity to meet its customers' needs by the end of the century. The proposed facility offers a long-term solution to Met-Ed and ensures that the benefits of this facility are brought to York County and not some other location, like New Jersey.

I'd also like to ask everyone here tonight to think back almost a year ago -- to last January -- when homes and

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businesses throughout our state were hit by the rolling brownouts. January 11th to be exact, the temperature dropped to 15 degrees below zero. Governor Casey ordered all boilers in the state not in use to fire up. P. H. Glatfelter's idle boiler was ordered on the line, and crank it up they did! But this 130-year old firm that was here before the Civil War, still family run and controlled, and a Fortune 500 Company, went one better by shutting down their biggest paper machine, losing $25,000 to $30,000 an hour for 24 hours, putting more electricity on the grid. And they didn't even get a gold star! Now, P. H. Glatfelter can't keep on doing this, and that's why this facility will help ensure that we have adequate supplies of energy in emergency situations, as well as to meet daily demand.

You might or might not believe the Farmer's Almanac that this winter is going to be even worse.

I also recognize that much has been said about the existing quality of York County's air. According to the Draft Environmental Impact Statement, the quality of York's air currently meets national and state requirements, and the rate of lung disease in York County is considered better than all of our surrounding counties and better than the state as a whole.

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Concerns about water usage and quality have been answered to my satisfaction. Treated wastewater from Glatfelter will be used for the YCEP cooling tower's water needs, so no water from Lake Marburg will be necessary. (And any water released to the Codorus Creek will be treated and have to meet state water quality standards before it is released.)

As to specific local issues, like truck and rail traffic, the Route 116/516 Lehman Road intersection, and road improvements, these concerns have been expressed to Air Products, and I understand they have committed in writing that the necessary work will be done and that the Spring Grove and North Codorus taxpayers would not have had to pay for these improvements.

In short, I see the project as a benefit to Spring Grove and the Greater York County community and would urge the DOE to approve the project so we can start enjoying the benefits this project offers. DW-1

DW-1 *Response:* Comment is noted.

KEYWORDS:
General

(Untitled) 12-14-94

Ladies and Gentelmen

I will be brief for Everything has been said already many many times both for and against this project. ~~[redacted], May I say that~~ On behaf of Boilermakes Local Lodge 13 and its 924 members, ~~have~~ we constructed every type of facility, weather it be nuclear, gas, oil, hydro or coal fired, all over the Easter United States, This project employs the very best in safe~~ty~~ and advanced technology. It will be beneficial to all concerned both enviromently and economicly. This project will demonstrate reduced emissions of particulates and oxides of nitrogen during operations far above that which is being generated now by the number 4 boiler at the Glatfelder paper mill. In addition, it is well known that every township within York county has experienced population ~~booms because of~~ growth and increased housing construction. This only increases the need for more and future energy sources. This project will meet part of the needs of this rapid expansion. After reviewing the draft, it appears that all or most potential problems have been addressed. Their is nothing to justify not approving this project. Its safe and necessary. Therefore, Boilermakers Local 13 and its membership, many of which are residents of York and surrounding countys, approve of and indorse this project.

William D. Blackwell
Boilermakers Local Lodge #13
AFL/CIO

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Good evening concerned citizens, Department of Energy and fellow tradesmen. My name is Terry Peck. I am Vice President of York Building Trades and Business Agent of Local 520 Plumbers & Pipefitters Union. Local 520 has been in the business for 80 years supplying highly skilled and top qualified pipe tradesman.

The Pennsylvania Building Trades built every modern power station in the Susquehanna Valley, Peach Bottom Atomic Power Station, Brunners Island, Safe Harbor, Muddy Run, York County Resource Recovery Units among others. Each of these plants are of different design and all were completed on a timely schedule. The local Building Trades have the manpower, experience and a record second to none.

The single most community productive event of such a project is the initial construction. It must be demanded by all, that the tradesmen from our area be the tradesmen to erect such a project. The jobs we plead for are not glamorous, to hang from the steel in the cold, the heat or the rain; however this is what we do for our livelihood.

Jobs for the Central Pennsylvania Building and Construction Tradesmen will provide payroll and tax revenues for our Commonwealth. The Building Trades also have State and Federal accredited apprenticeship programs, pension plans and health

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benefit programs. Together these programs make Central Pennsylvania a better place for all to live by providing on the job training for the youthful tradesmen, health care for the journeymen and their families and pension for the past workers. This type of arrangement helps a large cross-section of Central Pennsylvania citizens and also helps to avoid the flash-in-the-pan job cycle.

The project is well planned and studied to meet the needs for future power demands. York County Energy Partners is a wholly owned subsidiary of Air Products and Chemicals of Allentown, Pennsylvania. Air Products is a very experienced company in cogeneration. Currently, Air Products has six operating cogeneration facilities. Air Products has proven to be capable of building and maintaining such facilities. It is our opinion that this project could be very good for the local economy and local tradesmen.

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Cogenerator 94
Comments to the Draft Environmental Impact Statement for the Proposed York County Energy Partners Cogeneration Facility, York county, Pennsylvania DOE/EIS-0221 On January 18,1995

The cogenerator will discharge into the air each day water vapor from the evaporation of three million gallons of cooling water. This discharge is likely to exacerbate an existing fog problem in Spring Grove. JW-1

John Klunk has documented actual fogging conditions in Spring Grove on 1/21/94, 2/18/94, 10/12/94, 10/16/94, 10/19/94, 10/21/94, and 12/4/94. His photographs show low fog banks 100 to 200 feet deep with clear blue sky above. This fog bank in the Spring Grove valley is 2 by 2 miles and 100 to 200 feet deep. JW-2

The Glatfelter Paper Company evaporates 1.5 million gallons of water from its ponds and stacks each day. This amount of water vapor can saturate a volume of air four square miles in area and three hundred and fourteen feet deep if the air temperature is 32 degrees. JW-3

If this air is originally at 50 % humidity the volume would double, or be 628 feet deep. It would take only 4 hours to fill this valley 100 feet deep. With a humidity of 75 % it would take only two. JW-4

The Draft EIS state that three million gallons of water per day for cooling purposes, the major portion will be evaporated and expelled into the air of Spring Grove. JW-5

Add this additional water vapor from the co-generator to the existing water vapor from the paper plant, then it would require only one and a quarter hours at 50 % humidity and 38 minutes at 75 % humidity to fill this valley with fog 100 feet deep.

John Klunk presented these photographs at a scoping meeting but they were ignored by the writers of the Draft EIS. In fact, the EIS states (pg 3-14) "There have been no documented reports of fogging and icing in the vicinity of the proposed project site as a result of the current P. H. Glatfelter Company operations." JW-6

The Draft EIS claims there is no fogging problem. On page 4-39, "The results of the Seasonal Annual Cooling Tower Impacts modeling indicate that operation of the proposed cooling tower would result in no predicted occurrences of cooling tower fogging and on railroads in the surrounding area", and continues with "There are not incidents of cooling tower induced icing expected due to the proposed facility. The model indicated that along York Road (Rt 116), located 984 feet southeast of the proposed cooling tower, there would be no hours of plume fogging and no hours of road icing".

The EIS results concerning fogging and air quality in general where made using computer models with questionable data rather than actual observations and measurements. Their model assumes the ground is flat and that the wind comes primarily from the West. They have no on site substantiation weather data. JW-7

The ground is not flat, the Codorus Creek valley is flanked by hills between 200-400 feet high, the valley progressing from the SW to the NE, widens at Spring Grove to two miles and widens further to four miles NE of town. JW-8

JW-1

Response: Please see the response to Comment J-21/23.

KEYWORDS:
Evaporation
Fog

JW-2

Response: Comment is noted.

KEYWORDS:
Documentation
Fog

JW-3

Response: Comment is noted. Please see response to Comment D-153/15.

KEYWORDS:
Cooling towers
Evaporation

JW-4

Response: Comment is noted. Please see response to Comment D-153/15 and D-154/17.

KEYWORDS:
Humidity

JW-5

Response: Please see the response to Comment J-23/11.

KEYWORDS:
Cooling tower
Evaporation
Humidity

JW-6

Response: Please see the response to Comment D-62/8.

KEYWORDS:
Documentation
Fog

JW-7

Response: Please see the responses to Comments D-155/11 and J-24/23.

KEYWORDS:
Meteorological data
Modeling

JW-8

Response: Comment is noted. Please see response to comment D-155/11.

KEYWORDS:
Modeling
Terrain

Wind generally flows through a valley, in this case the wind would tend to flow towards the north east or to the south west, the direction of the valley. JW-9

Ground level meteorological data for the EIS was collected from West Manchester Township which is 6 miles away and the NWS office in Harrisburg which is 25 miles away, furthermore Harrisburg is obviously too far away and influenced by the stabilizing effect of a large river, the Susquehanna. Upper air data is from NWS Dulles International Airport Virginia which is two climate zones and 75 miles away. The maximum recommended distance for ground level meteorological data is 6 miles. (3.2, 3.5) None neither of the ground level sites are representative for the macro climate of Spring Grove. Both are in primarily level areas whereas Spring Grove is in a narrow valley. JW-10 JW-11

The closest wind measurements are from West Manchester Township at the Baker Plant. The EIS contains two wind roses, West Manchester and Harrisburg, which records the wind strength and duration percentage from the sixteen point of the compass.

Some select values from these wind roses:

West Manchester Township			Harrisburg	
Maximum %	11.0	S SW	14.5 %	W
Next highest %	10.5	W NW	13 %	W NW
	10.5	NW	10.5 %	W SW
sum	32 %		38 %	

JW-12

Sum of apposing wind directions

Maximum	15.0 %	S-SW, N-NE	20.5 %	W, E
	14.5 %	NW, SE	18.5 %	W-NW, E SE
	13.5 %	W-NW, E-SE	10.5 %	W-SW, E-NE

Notice that the Harrisburg wind shows a strong tendencies, most of the prevailing winds are westerly, characteristic of a valley wind but the Baker plants does not show this strong directional tendency.

The question remains; what is the shape of the Spring Grove wind rose? I doubt that the wind is as strong as either Harrisburg or West Manchester or that the prevailing directions are East and West as assumed in the EIS. JW-13

I do not have any weather data concerning Spring Grove, nor do the writers of the EIS; such as the number of days of fog, their duration, the temperature and relative humidity, dew point or the number of days of temperature inversion. What is clear is the addition of this large quantities of water vapor can only aggravate an already existing fog problem and that the EIS is probably wrong. JW-14

JW-9 ***Response:*** Comment is noted.

KEYWORDS:
Wind rose

JW-10 ***Response:*** Please see the response to Comment D-155/11.

KEYWORDS:
Meteorological data
Terrain

JW-11 ***Response:*** Please see the response to Comment J-26/6.

KEYWORDS:
Meteorological data

JW-12 ***Response:*** Comment is noted.

KEYWORDS:
Wind rose

JW-13 ***Response:*** Please see the response to Comment J-27/25.

KEYWORDS:
Wind rose

JW-14 ***Response:*** Please see the response to Comment J-28/6.

KEYWORDS:
Fog
Meteorological data

Calculations:

3 X 10^6 gallons evaporated
At 32 F saturated air contains 4.9 grams water/meter cubed.

3 X 10^6 gal (3.8 X 10^3 grams water/gal) =
1.14 X 10^10 grams of water as water vapor.

1.14 X 10^10 grams (m^3 air/4.9 grams water as vapor) =
2.3 X 10^9 meter cubed of saturated air.

2.3 X 10^9 m^3 (3.28 ft./m)^3 = 8.1 X 10^10 ft^3 saturated air
8.1 X 10^10 ft^3/((2)(5680 ft))^2 =
628 ft layer over 4 square miles

JW-15

Johannes L. Scheltema
RFD 2, Box 208
Glen Rock, PA 17327
717 235 6677

JW-15

Response: Comment is noted.

KEYWORDS:
Calculations
Saturation

Air Products and Chemicals, Inc.
7201 Hamilton Boulevard
Allentown, PA 18195-1501

AIR PRODUCTS
PROD SHIPMENT
TION 2E-32
MAILED AT READING, PA
PRESORTED FIRST-CLASS



Mrs. Margaret Klunk
R.D. #4
Box 4624
Spring Grove, PA 17362

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COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT

TO UNITED STATES DEPARTMENT OF ENERGY FOR

PROPOSED YORK COUNTY ENERGY PARTNERS COAL BURNING POWER PLANT

NORTH CODORUS TOWNSHIP, YORK COUNTY, PENNSYLVANIA

CODORUS MONITORING NETWORK INC. JOHN KLUNK, PRESIDENT

JANUARY 18, 1995

WATER QUALITY - CODORUS CREEK

A major purpose of the Codorus Monitoring Network is to advocate improvement in Codorus Creek, which historically, and presently is seriously degraded by industrial pollution. The stream has been allowed to exceed state water quality standards for temperature and color due to exemptions granted to the P.H. Glatfelter Company by the Pennsylvania Department of Environmental Resources and the Environmental Hearing Board. The residents of York City and York County have been deprived of the full potential aesthetic and recreational value of Codorus Creek, largely due to the odor, color and diminished fishery caused by discharges from P.H. Glatfelter. In the long term, over the expected operating period of the proposed YCEP coal burning power plant, significant improvements are likely to occur in Codorus Creek water quality. If the YCEP project is built, it would be a limiting factor to achievement of such improvement. JW-16

(1) The Draft EIS produced by US DOE is short sighted for failing to recognize the likelihood for improvements in processes and wastewater treatment at the Glatfelter facility which are likely to occur without the YCEP coal burning plant, for economic reasons or those which may be required by federal and state authorities during the expected period of operation of the proposed YCEP facility. The Glatfelter Company could greatly reduce impacts to Codorus Creek. The potential impact of the YCEP wastewater discharge to Codorus Creek should be evaluated separately from the Glatfelter discharge to determine the long term effect YCEP would have if Glatfelter were to implement improvements to significantly reduce impacts to Codorus Creek water quality. This approach would indicate how much of a limiting factor the YCEP discharge would be to improving water quality with the improved Glatfelter scenario. JW-17

It should not be assumed that Codorus Creek downstream of the Glatfelter facility could not support trout. If Glatfelter were to make more efficient use of waste heat and improve their processes and waste treatment, it would be possible. The July 14, 1993 report from Glatfelter to PA DER on the fish kill caused by an accidental release of sulfuric acid to the mill pond included smallmouth and largemouth bass, crappie bass, northern pike and 3 brown trout averaging over 8 inches long. JW-18 JW-19

JW-16

Response: Comment is noted. Please see response to Comment J-31/15.

KEYWORDS:
Codorus Creek
Exemptions
Recreation

JW-17

Response: Please see the response to Comment J-31/15. Water quality improvements due to P. H. Glatfelter Company's modernization project have been analyzed separately, as shown in Table 4.1-27 of the EIS. The effects of the proposed project on the diminishment of these improvements is also shown in this table.

KEYWORDS:
Cumulative effects

JW-18

Response: Please see the response to Comment J-32/6.

KEYWORDS:
Codorus Creek
Trout

JW-19

Response: Comment is noted. Please see response to Comment J-32/6.

KEYWORDS:
Codorus Creek
Fish kill

(2) The Draft EIS is short sighted for not considering the likelihood of future needs to withdraw more water from Lake Marburg to accommodate increased demand by the Glatfelter Company caused by increases in production capacity at the Glatfelter mill and resulting need for more water to be drawn from Lake Marburg to facilitate dilution to meet present water quality standards or more stringent regulatory requirements imposed in the future. It should not be assumed that the Glatfelter Company would not exercise their right to draw more than double the amount of water they now do from Codorus Creek and Lake Marburg in the future. JW-20

(3) The only significant change in water quality identified in the draft EIS expected to result from the YCEP project would be due to evaporation of a portion of wastewater currently discharged to Codorus Creek by Glatfelter at outfall 001. From the information presented in the draft EIS, the use of wastewater to cool the YCEP boiler would evaporate 2.8 mgd to the atmosphere at the proposed site very close to the Borough of Spring Grove, residences in North Codorus Township and in close proximity to heavily used state route 116 and the unconventional intersections of route 516 and Lehman roads with route 116. The proposed evaporation would release volatile organic compounds (VOC's), hazardous air pollutants (HAP's) and salts to the atmosphere. Other odor producing and metallic constituents of the Glatfelter wastewater which would be released were not completely identified or quantified. The only claimed improvements to the degraded water quality in Codorus Creek would result from a decrease in the volume of wastewater discharged from Glatfelter outfall 001. However, the resulting increase in concentrations of contaminants in the wastewater which were identified and those which were not are cause for serious concern. JW-21

(4) Tables 4.1-27 and 4.1-28 of the draft EIS indicate concentrations of total dissolved solids, chloride, sulfate, calcium, sodium, suspended solids and total solids are expected to increase with the proposed YCEP operation as a result of evaporation. Effects of increased concentrations, conductivity and osmotic pressure on aquatic organisms should be thoroughly evaluated, with adequate consideration of cumulative synergistic effects. JW-22

(5) The draft EIS does not adequately address the issue of instream concentrations of all contaminants. Copper, lead, mercury, cyanide and phenol are parameters included in Glatfelter NPDES permit #0008869. Table 15 on page 32 of CODORUS CREEK WATER RESOURCE STUDY produced for YCEP by Environmental Resources Management (ERM 6/94) indicates concentrations of copper would exceed chronic fish health criteria during low flow conditions below Glatfelter with the YCEP project. Why have all applicable water quality parameters and limits not been included in tables 4.1-27 and 4.1-28 of the draft EIS? they should be included and be expressed as values not only in the wastewater but also as projected instream values during normal and low flow conditions. JW-23

JW-20

Response: Please see the responses to Comments J-32/25, J-176/18, and J-179/19.

KEYWORDS:
Lake Marburg
Water withdrawals

JW-21

Response: Please see the responses to Comments D-83/21, D-158/9, J-80/16, W-MK-1/28b, W-MK-1/28c, and W-JK-1/28v. Sections 3.1.4.1 and 4.1.4.2.7 have been updated and expanded in the FEIS to more comprehensively address the effects on Codorus Creek. Also please see Section 4.1.2.9 in the EIS which discusses the potential release of volatile organic compounds (VOCs), and hazardous air pollutants (HAPs) from the proposed project's cooling tower. Section 4.1.2.10 of the FEIS discusses the potential release of odor-producing compounds.

KEYWORDS:
Cooling tower
Evaporation
HAPs
VOCs

JW-22

Response: Please see the response to Comment J-33/24.

KEYWORDS:
Dissolved solids
Water impacts

JW-23

Response: Please see the responses to Comments J-34/9 and W-JK-1/28aa.

KEYWORDS:
In-stream concentrations
Low-flow conditions
Water quality parameters

page 3 Comment on YCEP DEIS, CMN/JK Jan. 18, 1995

(6) Table 3.1-9, SUMMARY OF CODORUS CREEK WATER QUALITY in the DEIS is of little value because it represents only one sampling event at 6 different sites. The Glatfelter Company should have been able to provide information that would enable reporting of the full range of fluctuations which occur in Codorus Creek water quality downstream of the Glatfelter facility through all seasons and flow scenarios. More complete information would be much more meaningful. JW-24

(7) As a representative of the Codorus Monitoring Network, I have given testimony at scoping hearings on three occasions and written to Dr. Van Ooteghem on five occasions, Sept.10,92, Mar.1,93, Aug.19,93, Nov.1,93, and Mar.5,94 since the YCEP project was proposed in York County, expressing concern about potential impacts of the YCEP coal burning power plant on Codorus Creek and providing specific data collected by our organization relative to water quality and photographic evidence of effects the Glatfelter Company has on local atmospheric conditions. The Department of Energy has chosen to ignore the information submitted and proceeded to write the draft EIS in a manner that grossly misrepresents the existing situation at the proposed site and conditions in Codorus Creek.

An example of this involved the editing of critical words from a sentence in the Codorus Creek Water Resource Study produced for YCEP by Environmental Resources Management, Inc. (Copies below) JW-25

 PAGE 3-28 DRAFT EIS

Pennsylvania water quality standards applicable to Codorus Creek specify that water color must have a maximum of 75 units on the platinum-cobalt scale, with no other colors perceptible to the naked eye (Col_2) (*ENSR, 1994*). A 1979 SRBC survey found that Codorus Creek had a clean water benthic community, but high color (*ERM, 1994a*).

2.4 - EXISTING CODORUS CREEK WATER QUALITY

CODORUS CREEK WATER RESOURCE STUDY

runoff (EPA, 1972). The poorest conditions occurred during low flow events when waste effluents were the least diluted or assimilated. High nutrients, heavy metals, dissolved solids, biological oxygen demand, and color all contributed to the Creek's degradation. A 1979 SRBC survey found a clean water benthic community upstream of Glatfelter's discharge, but high color, temperature, dissolved solids, and total organic carbon concentrations and a benthic community dominated by pollutant-tolerant forms downstream.

In 1990, PaDER conducted a Total Maximum Daily Load/Waste Load Allocation (TMDL/WLA) for Codorus Creek (PaDER, 1990). TMDL is a

JW-24

Response: Please see the responses to Comments J-126/3 and W-LMY-1/10d.

KEYWORDS:
Codorus Creek
Data
Water quality

JW-25

Response: Please see the response to Comment J-127/11.

KEYWORDS:
Documentation
Editing
Water quality

(8) Section 3.1.5 BIOLOGICAL RESOURCES on page 3-37 of the DEIS refers to findings of studies done by Dr. Denoncourt and PA DER at sites upsteam and downstream of P.H. Glatfelter indicated a very low number of taxa (6) downstream of the mill pond and mill complex but upstream of the wastewater outfall 001. JW-26

Although temperature increases from the mill pond and non-contact cooling water discharge and reduction in flow may be a factor, there must be other factors contributing to the degraded condition of the biological community. This should be investigated to determine if what is affecting that reach of stream would be exacerbated by addition of the YCEP facility with its impermeable surfaces and potential for run-off containing accumulated airborne contaminants and various other deposits, spills, etc. which typically occur at industrial facilities and in urban areas. JW-27

(9) The DEIS appears to present a lot of data gathered since 1970 from a variety of sources but the information is fragmented and there are many unsubstantiated statements, claims and remarks. Codorus Creek presently exceeds state of PA water quality standards for color throughout the year, except during maintenance shut down periods for Glatfelter and often exceeds instream temperature standards for warm water fishery. There are many other parameters of concern, some of which are indicated in data presented in the draft EIS. The DEIS should more precisely evaluate the present water quality of Codorus Creek during average and low flow conditions, Including all applicable permit parameters and aquatic biological criteria, upstream, adjacent to and downstream of the Glatfelter facility and proposed YCEP site to provide an accurate assessment of current water quality conditions and impacts likely to occur with operation of the proposed facility. JW-28

(10) Effect on downstream users is not addressed in chapter 4 of the draft EIS. The DEIS should explain the circumstances regarding downstream or potential downstream users of Codorus Creek. For all intents and purposes, Codorus Creek, downstream of the Glatfelter facility is unfit for any use of water from the creek due to odor, color and high concentrations of contaminants. The only use Codorus Creek downstream of Glatfelter is suitable for is to receive discharges of wastes. Even this use could potentially be affected due to such a large portion of the total wasteload allocation for Codorus Creek being consumed by Glatfelter and the factor of increased concentration of contaminants indicated to result from losses through evaporation planned by YCEP. When YCEP proposed to build this coal burning plant in West Manchester Township, It was stated that the facility required pure water to operate and planned to use water supplied by York Water Company. JW-29

(11) Impacts on recreational uses of water are not addressed in the draft EIS. This is indicated as an issue in Appendix B, Environmental Impact Assessment Methodology and needs to be addressed with respect to existing and projected conditions. JW-30

JW-26

Response: Please see the response to Comment J-145/7.

KEYWORDS:
Aquatic resources
Biodiversity
Biological resources

JW-27

Response: Please see the response to Comment J-145/7.

KEYWORDS:
Aquatic systems
Biodiversity
Parameter effects

JW-28

Response: Please see the responses to Comments W-LMY-1/10c1, W-LMY-1/10c2, W-LMY-1/10c3, W-JK-1/28aa, W-JK-1/28dd, W-JK-1/28ee, and W-JK-1/28ll.

KEYWORDS:
Codorus Creek
Low-flow
Water quality

JW-29

Response: Please see the response to Comment J-34/19.

KEYWORDS:
Codorus Creek
Cumulative effects

JW-30

Response: Please see the response to Comment J-35/20.

KEYWORDS:
Recreation
Water resources

Codorus Creek downstream of the Glatfelter facility and proposed YCEP site is undesirable for all forms of recreation that occur upstream of Glatfelter and in other unpolluted branches and tributaries of Codorus Creek and streams of similar size and physical characteristics in the Susquehanna Basin. Boating by canoe and waterfowl hunting are possible but very little occurs because the aesthetics of the aquatic environment are negatively impacted due to odor and color from the Glatfelter discharge. Swimming and tubing are even less likely to occur than boating for the same reasons of aesthetics. If odor would not be a factor, limited visibility due to color would be a safety factor of concern for swimmers. JW-31

Sport fishing downstream of Glatfelter wastewater outfall 001 through the approximately 9 river miles contained within the public land owned by the U.S. Army Corps of Engineers is practically non existent due to aesthetics and fear of eating fish which are contaminated, but largely due to an almost total lack of desirable fish species which occur in other parts of the Codorus basin. I have caught brown trout and smallmouth bass upstream of the Glatfelter mill pond. The East branch of Codorus Creek is classified as cold water and high quality cold water fishery and the South branch supports areas of naturally reproducing brown trout and is stocked with trout by the PA Fish and Boat Commission although it is classified as warm water fishery. (The classifications referred to above are designated by PA DER) Complete accurate information on the issue of Impacts on recreational uses of water should be included. JW-32

(12) Impact on the use of Codorus Creek as a fishery for Class A wild brown trout (downstream of Lake Marburg) is not addressed in chapter 4, Environmental Consequences, of the draft EIS. This is an issue identified in Appendix B and should be addressed. JW-33

(13) Impact of wastewater recycling program on the community is identified as an issue in Appendix B. The issue is addressed in the DEIS, but not adequately, due to the following reasons.

(a) It is known and photographic evidence has been submitted to DOE indicating that the Glatfelter facility produces local fogging and icing in the vicinity of the mill complex and the wastewater treatment area. JW-34

(b) The use of Glatfelter wastewater as proposed in the YCEP cooling towers would create a likelihood of an increase in fogging and icing concentrated in the areas surrounding the Proposed YCEP site due to the tremendous volume of water to be evaporated. JW-35

The use of wastewater in the cooling towers would expose affected residents in the area to chloroform, a known carcinogen, phenol, other compounds and odor producing compounds, not all of which have been identified in the DEIS or the YCEP Wastewater Reuse Feasibility Study. Why did the analysis of Glatfelter wastewater by JW-36

JW-31

Response: Comment is noted.

KEYWORDS:
Codorus Creek
Recreation

JW-32

Response: Comment is noted.

KEYWORDS:
Codorus Creek
Fishing
Recreation

JW-33

Response: Please see the response to Comment J-37/22.

KEYWORDS:
Codorus Creek
Fishery
Trout

JW-34

Response: Please see the responses to Comments D-62/8 and D-153/15.

KEYWORDS:
Documentation
Fog and ice

JW-35

Response: Please see the responses to Comments D-62/8 and D-153/15.

KEYWORDS:
Cooling tower
Evaporation
Fog

JW-36

Response: Please see the response to Comment J-121/7.

KEYWORDS:
Cooling towers
Evaporation
Phenol

Lancaster Laboratories Inc. performed for the Wastewater Reuse Feasibility Study not include all constituents of Glatfelter water? JW-37

(c) The Cooling Tower Modeling Analysis - Revised Final, October 1994 is obviously flawed because, although "....onsite meteorological data" is referred to, in reality there was no actual onsite meteorological data collected at the North Codorus site. 2.1.2 MODELING INPUT DATA - 2.1.2.1 Receptor Grid Network states "Flat terrain was assumed for the modeling analysis since no nearby terrain is located above the top of the cooling tower fan release point." This obviously ignores the actual terrain at the North Codorus site. JW-38

(d) Page 4-41 of the draft EIS states "The pilot plant included a trailer-mounted cooling tower which simulated use of actual wastewater (P.H. Glatfelter Company secondary effluent stream) in a cooling tower that was operated at an average of 2.5 cycles of concentration to assess the performance of the proposed cooling tower." Why was actual wastewater not used in the pilot plant? What was actually used in the pilot plant to simulate the use of wastewater? JW-39

(e) The Human Health Risk Assessment of Cooling Tower Emissions - November 11, 1994 should not be considered valid because of obvious flaws in the Cooling Tower Modeling Analysis and for failure to identify all constituents in the wastewater and their possible effects on human health. Furthermore, the issue of odor was ignored. Release of the quantity of all contaminants including non hazardous odor producing compounds contained in the volume of wastewater proposed to be evaporated needs to be more thoroughly evaluated, not only from the standpoint of physical, but also the psychological health of residents in the Spring Grove area who would be exposed to nusiance odors produced by emissions from the cooling towers. JW-40 JW-41

Respectfully submitted at public hearing, January 18, 1995.

Accompanying these six pages of thirteen numbered comments are nineteen comments on the draft EIS prepared by Tethys Consultants Inc. which deal specifically with the effects of the proposed YCEP facility on surface water and aquatic systems.

Further comments will be submitted via certified mail before January 31, 1995, the close of the comment period.

John Klunk

John Klunk, President, Codorus Monitoring Network Inc.

RD4 Box 4624
SPRING GROVE PA 17362

(717) 225-2[illegible]

JW-37

Response: Please see the response to Comment J-121/7.

KEYWORDS:
Characterization
Wastewater

JW-38

Response: Please see the responses to Comments D-155/11 and J-28/6.

KEYWORDS:
Meteorological data
Modeling

JW-39

Response: Please see the response to Comment J-124/2.

KEYWORDS:
Cooling tower
Simulation

JW-40

Response: Please see the response to Comment J-124/13.

KEYWORDS:
Cooling tower
Health effects
Wastewater
characterization

JW-41

Response: Please see the response to Comment D-158/9.

KEYWORDS:
Cooling tower
Odor
Wastewater

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COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED YCEP FACILITY

CRITERIA POLLUTANTS IN TONS PER YEAR - 100% LOAD

Pollutant	W. Manchester site DEIV ENSR-1992	W. Manchester site DEIS-DOE cites ENSR 1992	N. Codorus site FEIV, DEIS, and PSD application
SO_2	2,299.5	2,450	2,891
NOx	1,454	1,225	1,437
CO	1,454	1,470	1,726
PM-10	144.5	107	127
VOC	<96	39	48

I would like you to direct your attention to Table 2.2-1 on page 2-60 of the Draft Environmental Impact Statement (DEIS). The source cited for that table is ENSR, 1992. ENSR, 1992, is the Draft Environmental Information Volume compiled by ENSR for the W. Manchester site. When DOE cites a source document they should include the page number/numbers stating where that information was found. This should be done throughout the DEIS any time a document is referenced or when any claim is made. JW-42

ERRONEOUS IDENTIFICATION OF A SOURCE The DEIV is roughly 285 pages long. Where did DOE get the figures used in Table 2.2-1? The emissions figures used by DOE in Table 2.2-1 do not appear anywhere in the DEIV. The criteria pollutant emissions figures from Table 7.1-1 on page 7-3 of the Draft Environmental Information Volume or ENSR, 1992, do not match those which the DEIS cites. It is no wonder DOE chose not to use the emissions numbers which actually appear in ENSR, 1992! According to ENSR, 1992 and ENSR,1994, in spite of a 500 ton per day or a nearly 200,000 tons per year increase in coal consumption, emissions for several criteria pollutants would go down. At 100% capacity for W. Manchester coal consumption was defined as 2,000 tons per day however 100% capacity for North Codorus is defined as 2,500 tons per day, yet NOx emissions would decrease by 17 tons per year, PM-10s would decrease by 17.5 tons per year and VOCs would decrease by 48 tons per year. JW-43

JW-42

Response: Please see the response to Comment J-39/1.

KEYWORDS:
Editorial
References

JW-43

Response: Please see the response to Comment J-39/11.

KEYWORDS:
Air emission
Alternative site
Documentation

April 4, 1994, I wrote to Mr. Richard Kenner questioning the reductions in criteria pollutant emissions. I compared the emissions given in the DEIV with those given in Air Products/YCEP Prevention of Significant Deterioration (PSD) application to PA Department of Environmental Resources (DER). The emission figures used by DOE for the North Codorus site shown in the DEIS in Table 2.1-1 on page 2-10 are the same as those which appear in the PSD application in Table 6-4 on page 6-13. I asked Mr. Kenner, " ... how is it that emissions are not projected to increase by the same ratio as increased coal consumption. What engineering improvements have been made? Are you switching to another method for removal of NOx? ...How has the design changed to reflect the superior criteria pollutant removal rates which would be required to achieve the numbers claimed in the PSD application?" The answer I received from Mr. Kenner was less than satisfactory. He answered, "With respect to the changes in other emissions estimates, when compared to the W. Manchester Township project, these changes reflect the additional design and engineering which has gone into the project since being relocated to the North Codorus Township site." JW-44 JW-45

Since Mr. Kenner declined to specifically name the "design and engineering" which allowed the reduction in some pollutants, DOE should explain the specific improvements in the Final Environmental Impact Statement. On April 19, 1994, I sent Dr. Van Ooteghem copies of both my letter to Mr. Kenner and his answer to me. In that letter to Dr. Van Ooteghem I asked if, "Perhaps you could answer my questions or ask YCEP/Air Products to be more forthcoming." Almost one year later I continue to ask someone to explain how it can be that YCEP can burn 500 tons per day more coal at this site than at the previously proposed site, yet have a reduction in many of the criteria pollutant emissions. JW-46

OMISSION OF CRITICAL INFORMATION On page 3-28 of the Draft EIS it says, " A 1979 SRBC survey found that Codorus Creek had a clean water benthic community, but high color." ERM, 1994a is noted as the source for this statement. What it really says on page 10 of ERM, 1994a is, "A 1979 survey found a clean water benthic community upstream of Glatfelter's discharge, but high color, temperature, dissolved solids and total organic carbon concentrations and a benthic community dominated by pollutant-tolerant forms downstream. JW-47

OBFUSCATION AND GENERALIZATIONS On page 3-28 in the second paragraph it states, "Nevertheless, most of the water quality measurements fall far below the standards, so it is reasonable to believe that most water quality criteria are met at most if not all flow rates." What does that sentence mean? The truth is that the below Glatfelter's outfall, PA's instream water quality standards for color and temperature are not met. In that same paragraph it states, "The cause of the high water hardness and the high winter-time water temperatures are uncertain." No source was referenced for this statement, but certainly DOE could have determined the causes by checking the Glatfelter's Discharge Monitoring Reports. JW-48 JW-49

JW-44

KEYWORDS:
Air emissions
Alternatives
Documentation

Response: Please see the response to Comment J-39/11. The proposed project at North Codorus Township is similar, but slightly different, than the project at the West Manchester site, due mostly to the fact that the steam generation requirements increase at the North Codorus site. The explanation provided by Mr. Kenner is accurate. The changes in pollution estimates reflect additional design and engineering which have gone into the project since being relocated to the North Codorus Township site. At the initial phases of project planning and design, there tends to be conservatism when estimating emission rates, which, when more design information becomes available, are refined (typically downward).

JW-45

KEYWORDS:
Air emissions

Response: Comment is noted.

JW-46

KEYWORDS:
Air emissions
Alternatives
Coal consumption

Response: Please see the response to Comment J-39/11. The reason that a facility could consume an additional 500 tons/yr of coal (when compared to a second facility) yet still would have lower total emissions is due to the (first) facility's lower emission rates for specific pollutants. The proposed project at the North Codorus Site would have lower specific emission rates for SO_2, NO_x, PM_{10}, and VOC than the project at the West Manchester site. The CO emission rates would be the same for the two projects. The reasons for these changes are due not to technology changes, but rather that technology refinements (e.g., vendors offer performance guarantees for specific components of a system whose design is now more complete; more detailed project flow sheets are developed; etc.) have occurred. Design engineers tend to compensate for uncertainty (of design and performance) through conservatism of expectations (of operations and environmental performance).

JW-47

KEYWORDS:
Biological resources
Documentation
Editorial

Response: Comment is noted. Section 3.1.4 of the FEIS has been rewritten to more comprehensively reflect information in source reports. Please see the response to Comment J-127/11.

JW-48

KEYWORDS:
Exemptions
Standards
Water quality

Response: Please see the response to Comment J-130/12.

JW-49

KEYWORDS:
Discharges
Water quality

Response: Please see the response to Comment J-131/1.

page 3 Comments on DEIS

Please explain the differences between the lbs./MMBTU figures which were forecast for the W. Manchester site, ENSR, 1992, Table 7.1-1, page 7-3 and those shown for the North Codorus site in the DEIS, pages 4-15 to 4-18. JW-50

Pollutant	W. Manchester ENSR 1992 lbs/MMBTU	N.Codorus DEIS lbs/MMBTU
SO_2	.24	.25
NOx	.15	.125
CO	.15	.15
PM-10	.015	.011
VOC	.01	.004

Next I would like to direct your attention to page B-6 of Appendix B-Environmental Impact Assessment Methodology. Under Indicators for Measuring Impacts of Human Health and Safety it states you will use the "Results of epidemiological study of Spring Grove area." York County's Medical Societies have argued from the first scoping session that it would be prudent to do an epidemiological study of the Spring Grove area. I am heartened to see one will need to be done. JW-51 Risk assessments are usually not worth the paper they are written on and that is certainly true of those which were done by the YCEP's paid consultants. Onsite meteorological studies were not required and cumulative impacts from Glatfelter's total air emissions including toxic air emissions were not considered. JW-52 It is especially ironic that DOE allowed YCEP to use meteorological data collected at the W. Manchester site instead of being required to collect data at the North Codorus site since DOE in their own Sufficiency review of the DEIV stated "At METC we were told that due to the complex (hilly) terrain, we could not use weather data from our airport 5 miles away, but rather, that we needed to obtain onsite meterorlogical [sic] data. The following need to be monitored: wind speed, wind direction, temperature, solar radiation, dew point, relative humidity and barometric pressure. JW-53

Please turn to Table 2.1-1 on page 2-10. Note the source is listed as ENSR, 1994. This is a three volume document titled, Final Environmental Information Volume which was compiled by ENSR for Air Products/YCEP. The document is over 900 pages long and somewhere in those 900+ pages DOE found the emissions figures listed. I found them too but it wasn't easy. JW-54 Again, page numbers must be designated when citing a source. It is my understanding that an Environmental Impact Statement is supposed to be easy to use and understand. Instead, DOE has made using this document as difficult as possible. No one would describe it as user-friendly! JW-55

JW-50

KEYWORDS:
Air emissions
Alternatives

Response: Please see the response to Comment J-39/11. In addition, as process designs become more defined, estimations of pollution loadings become more refined. It is not uncommon as design progresses that rates of emissions decrease, which oftentimes is linked with obtaining performance guarantees from vendors.

JW-51

KEYWORDS:
Epidemiology
Health effects

Response: Please see the response to Comment J-131/13.

JW-52

KEYWORDS:

Air toxics
Cumulative effects
Meteorological data

Response: Please see the response to Comment J-132/2.

JW-53

KEYWORDS:
Meteorological data
Sufficiency

Response: The information cited by the commenter regarding METC's meteorological requirements was draft information and is not entirely applicable to the proposed action in a bordering state. Also, please see the responses to Comments D-62/8, D-155/11, and J-132/13.

JW-54

KEYWORDS:
Editorial
References

Response: Please see the response to Comment J-39/1.

JW-55

KEYWORDS:
Editorial
Readability

Response: Please see the response to Comment D-252/9.

A pattern of antagonism toward the public began in August of 1993 (the date of the first scoping hearing). It was designed to discourage public participation, at least the participation of those opposing the project. We have been denied timely access to documents over and over again. We have been forced to ask for public documents via the Freedom of Information Act, when they should have been supplied by DOE willingly without having to resort to using FOIA. Promised documents never came without a fight.

I would describe the DOE's relationship to the public and their participation in the project, as adversarial. For example, (1) the scheduling a scoping hearing for only one night even though DOE was knew that with the number of citizens registered to speak, the meeting would continue until 1:00 or 2:00 am the following morning (2) allowing only three weeks to review the DEIS prior to the public hearings (3) scheduling a public hearing at the height of the holiday season. Only public outcry on each of these occasions, plus support from Senators Spector and Wofford, Congressman Goodling and Representative Todd Platts, persuaded DOE to do the right thing. Something has gone very wrong when DOE, a branch of our Federal Government, appears to be working for the industrial participant, Air Products and chemicals. The DEIS is stacked with unsubstantiated and worse, downright false statements, favorable to the project's developer. Shouldn't DOE instead be working in an unbiased fashion to protect our environment and our health and safety. Something has gone terribly wrong with this process.

JW-56

Margaret Klunk

JW-56

Response: Please see the responses to Comments D-31/22, J-132/25, and W-MK-7/29d.

KEYWORDS:
Relations

Legal Notice

Draft Environmental Impact Statement and Public Hearings for the Proposed York County Energy Partners Cogeneration Project at North Codorus Township, PA.

Vol. 59, No. 248
59 FR 66943
Wednesday, December 28, 1994

AGENCY:	U.S. Department of Energy (DOE)
DOC TYPE:	Notices
DATES:	January 18, 1995. If public interest warrants, the hearing may be carried over to January 19, 1995.
PLACE:	York Fairgrounds, 334 Carlisle Avenue, York, PA 17404, (717)848-2596.
TIME:	3:00 pm to 8:00 pm
CONTACT:	For more Information Contact: Dr. Suellen A. Van Ooteghem, Environmental Project Manager, Morgantown Energy Technology Center, U.S. Department of Energy, 3610 Collins Ferry Road, P.O. Box 880, Morgantown, WV 26507-0880, (304)285-5443.

Signed in Washington, DC, this 21st of December 1994.

Patricia Fry Godley
Assistant Secretary
for Fossil Energy

ADDRESSES:	Written comments should be directed to: Dr. Suellen A. Van Ooteghem, Environmental Project Manager, Morgantown Energy Technology Center, U.S. Department of Energy, 3610 Collins Ferry Road, P.O. Box 880, Morgantown, WV 26507-0880.
ACTION:	Notice of Continuation of Public Hearings.
SUMMARY:	On November 25, 1994, the U.S. Department of Energy published a notice announcing the availability of a Draft Environmental Impact Statement and public hearings for the proposed York County Energy Partners Cogeneration Project at North Codorus Township, PA (59 FR 60614). A notice extending the written comment period to January 31, 1995, was published on December 15, 1994, (59 FR 64653). Today's notice is to announce a continuation of these hearings. Procedures for preregistration and conduct of this continuation hearing will be similar to the procedures for the hearings conducted December 14-16, 1994.
INTERNAL DATA:	FR Doc. 94-31943; Filed 12-27-94; 8:45 am; Billing Code 6450-01-P

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TETHYS Consultants, Inc.
Specializing in Earth and Environmental Sciences
Suite 234, Building 3, 2001 N. Front Street, Harrisburg, PA 17102
717—233-7625 717—BED-ROCK

January 17, 1995

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
MORGANTOWN ENERGY TECHNOLOGY CENTER
3610 Collins Ferry Road
Morgantown, WV 26507-0880

SUBJECT: Technical Review of the
Draft Environmental Impact Statement (November 1994)
YORK COUNTY ENERGY PARTNERS COGENERATION FACILITY
York County, Pennsylvania
TETHYS Project No. T-1356

Dear Dr. Van Ooteghem:

Pursuant to a request made by the Codorus Creek Monitoring Group, TETHYS CONSULTANTS, INC. (TETHYS) has recently completed a technical review of the above-referenced document. This document was prepared by the U.S.Department of Energy in compliance with the National Environmental Policy Act (NEPA) to assess the environmental and human health impacts associated with the proposed York County Energy Partners (YCEP) Cogeneration Facility. Our review concentrated on those portions of the report that dealt specifically with the effects of the facility on surface water and aquatic ecosystems.

COMMENT NUMBER	PAGE/LINE REFERENCE	REVIEW COMMENT
1	3-27, Line 2	Table 3.1-9 indicates that Lead exceeded the allowable limits at RM 24.60, approximately 1.7 miles below the proposed facility.

JW-57

JW-57

KEYWORDS:
Lead
Water quality criteria

Response: Lead concentrations presented in Table 3.1-9 do not exceed the Pennsylvania water quality criteria. Table 3.1-9 in the Draft Environmental Impact Statement, which contains data from a survey by SRBC (*1991a*), shows water quality criteria for metals calculated for a water hardness of 100 mg/L, a standard reference value. The water quality criteria are actually a function of the water hardness. Preferably, the criteria are calculated from water hardness as measured at the site under consideration. For example, the water hardness measured at RM 21.5 (hardness = 224 mg/L) allows us to calculate the Pennsylvania water quality criteria for chronic exposure of aquatic organisms to lead (see Table 9-4 in the FEIS). The calculated criteria is 23.6 μg/L, which exceeds the measured in-stream concentration of lead (4.0 μg/L). The SRBC (*1991a*) found exceedances of the water quality criteria for chronic exposure of aquatic organisms to lead downstream from York but not near Spring Grove or at any of the sample sites for which data is presented in Table 3.1-9.

TETHYS Consultants, Inc.
Suite 234, Building #3, 2001 North Front Street, Harrisburg, PA 17102

Page 2
Dr. Van Ooteghem
January 17, 1995

COMMENT NUMBER	PAGE/LINE REFERENCE	REVIEW COMMENT	
2	3-28, Line 11	In addition to hardness, Table 3.1-9 indicates that Lead levels exceed allowable limits below the Glatfelter discharge.	JW-58
		Table 2, Page 11 of the *Biodiversity Study for Codorus Creek (Environ, 1994a)* indicates that average winter-time temperatures below Glatfelter do not exceed allowable limits.	JW-59
3	3-29, Table 3.1-9	The data provided in this table is not representative of water quality at Q_{7-10}. Therefore, since several of these parameters already exceed allowable limits for a WWF it seems reasonable to assume that water quality will be further degraded at low flow conditions.	JW-60
4	3-38, Line 4	Data from PADER's (1987) study reported only Dobsonflies in abundance at RM 23.89.	JW-61
		Furthermore, the presence of Caddisflies does not necessarily imply good water quality. In fact, the dominant taxa (Hydropsychidae) is common to areas subject to organic pollution.	JW-62
5	3-38, Line 24	The comparison made in this statement uses data from May 1988 and September 1992. Seasonal variations in species composition and community structure due not allow for such comparisons.	JW-63
		A comparison of data from September 1988 with September 1992 shows no improvement in taxa richness below the Glatfelter discharge.	JW-64
6	3-39, Line 4	When HBI values are compared as they are presented in this statement they do represent improved or good water quality. However, when all of the data presented in the 1992 study is compared, the average HBI values below the discharge continue to be lower than upstream values.	JW-65

JW-58

KEYWORDS:
Lead
Water quality criteria

Response: Text referred to by the commenter was written to explain a particular table that appeared in an earlier draft of the DEIS. That table was changed in the published DEIS; but, inadvertently, the explanatory text was not also changed. This error has been corrected in the FEIS.

JW-59

KEYWORDS:
Temperature
Water quality criteria

Response: See the response to Comment JW-58.

JW-60

KEYWORDS:
Low-flow conditions
Water quality criteria

Response: The expected impacts from the proposed facility to water quality in Codorus Creek at low-flow conditions are discussed in Section 4.1.4.2.7 of the FEIS; expected impacts to biodiversity in Codorus Creek are discussed in Section 4.1.5.1 of the FEIS. See the responses to Comments W/LMY-1/10d and W-LMY-1/10c1.

JW-61

KEYWORDS:
Biodiversity

Response: The statement has been corrected in the FEIS (Section 3.1.5.1) to identify **elmid beetles** and dobsonflies as being in abundance at RM 23.89.

JW-62

KEYWORDS:
Biodiversity
Organic pollution

Response: Section 4.1.5.1 in the FEIS has been modified to note that the abundance of pollution tolerant species downstream from the P. H. Glatfelter Company outfall suggests organic overload. It is noted that the family *Hydropsychidae* includes many tolerant and opportunistic caddisfly species.

JW-63

KEYWORDS:
Biodiversity
Seasonal variations

Response: Section 3.1.5.1 has been corrected in the FEIS. The correct number of taxa found at the station in Spring Grove [150m downstream of the Route 116 bridge] during the September 1988 in-stream faunal survey is 24. The number of taxa identified at the station upstream from the P. H. Glatfelter Company outfall [300m upstream of the Hershey Road bridge] during the September 1988 in-stream faunal survey is 25. The number of taxa identified at the station immediately downstream of the P. H. Glatfelter Company outfall in the September 1988 in-stream faunal survey would be 23.

For clarification, the inferred trend of improving water quality is based on Denoncourt's data collected over a period of eight years. The data presented for May 1988 and September 1992 are merely examples of the data collected over the eight years. However, eight years of sampling at various points/seasons throughout the year are sufficient to establish patterns and trends in species composition and community structure, incorporating seasonal variations.

JW-64

KEYWORDS:
Biodiversity

Response: Comment noted. The DOE agrees that the number of taxa, as reported in the 1988 and 1992 in-stream faunal surveys, has not increased. Further, the biotic indices indicate a decline in water quality downstream of the P. H. Glatfelter Company outfall. This point is noted in the FEIS in Section 4.1.5.1. However, the data also show that between 1985 and 1992, there has been a trend toward increased water quality both above and below the P. H. Glatfelter Company's discharge point.

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JW-65

KEYWORDS:
Biodiversity
Codorus Creek
P. H. Glatfelter Company

Response: In September 1988, the Hilsenhoff Biotic Index (HBI) for the Spring Grove station [150m downstream of the Route 116 bridge] as calculated from the in-stream faunal survey was 6.37. The HBI for the station upstream from the P. H. Glatfelter Company outfall [300m upstream of the Hershey Road bridge] as calculated from the September 1988 in-stream faunal survey was 6.39. The HBI for the station immediately downstream of the P. H. Glatfelter Company outfall as calculated from the September 1988 in-stream faunal survey was 6.30. These biotic indices all indicate fair water quality (not good or excellent water quality) and a fairly significant organic pollution.

By September 1992, the biotic indices for the same three stations had decreased to 4.35, 4.1, and 4.1, respectively. These biotic indices indicate good water quality. Therefore, although no significant change in taxa richness is evident between the September 1988 in-stream faunal survey and the September 1992 in-stream faunal survey, the biotic indices would indicate an overall improvement in water quality.

TETHYS Consultants, Inc.
Suite 234, Building #3, 2001 North Front Street, Harrisburg, PA 17102

Page 3
Dr. Van Ooteghem
January 17, 1995

COMMENT NUMBER	PAGE/LINE REFERENCE	REVIEW COMMENT	
7	3-39, Line 23	This statement implies that instream conditions are good because all trophic levels are represented. However, the data from these studies does not address whether or not the fish assemblages represent balanced communities.	JW-66
8	3-39, Line 28	Even though species diversity is moderately high, and "fair" to "good" conditions exist, the species represented are pollution tolerant. Therefore, it seems unreasonable to suggest that moderately high diversity implies good water quality.	JW-67
9	3-40, Line 15	The results of the PADER (1987) report indicate sublethal effects in fathead minnows exposed to undiluted wastewater. It seems important to address what effects, if any, the reduced flow volume in Codorus Creek and mixing capabilities will have on toxicity.	JW-68
10	4-85, Line 24	How will the net increase in TDS concentration affect the aquatic ecosystem of Codorus Creek, especially during low-flow years?	JW-69
11	4-86, Table 4.1-29	The predicted decrease in flow at Spring Grove during a normal and low-flow year will also reduce the amount of available aquatic habitat. Nowhere has the effect of potential habitat loss been addressed.	JW-70
12	4-86, Line 3	The heat load of Glatfelter's discharge will be reduced by "approximately" 25%, but the net effect of this "approximate" reduction may not significantly influence stream temperature and dissolved oxygen concentrations as this statement implies.	JW-71
13	4-86, Line 8	The "approximately" 9.6% increase in metals (e.g., lead and copper) predicted in the outfall will increase the concentrations of these metals which already exceed the allowable limits below the discharge.	JW-72

JW-66

KEYWORDS:
Biodiversity

Response: Comment noted. The statement referred to in the comment was not intended as a conclusory statement on the water quality in Codorus Creek. The statement was meant only to indicate that Codorus Creek currently appears to support a diversity of fish types from all trophic levels.

JW-67

KEYWORDS:
Biodiversity
Water quality

Response: The statement referred to by the commenter is included in the discussion under *Biodiversity* (Section 3.1.5.1), and makes no intimation regarding in-stream water quality, which is discussed in Section 3.1.4.1 of the Draft Environmental Impact Statement. Rather, the statement reports only that the current indicators of biodiversity suggest that fair to good conditions of diversity and recovery potential exist within Codorus Creek. This would be consistent with the intent of the author of the original statement (*Denoncourt, 1992 as included in Environ, 1994a*).

JW-68

KEYWORDS:
Biological resources
Reduced flow
Toxicity

Response: Comment noted. The effects of increased concentration of potentially toxic (to aquatic life) constituents of P. H. Glatfelter company wastewater are discussed in Chapter 4 (Sections 4.1.4.2.7 and 4.1.5.1) of the FEIS, which has been expanded to more clearly discuss the impacts of the consumptive use of 4.3 cfs (2.8 mgd) of P. H. Glatfelter Company wastewater by the proposed facility.

JW-69

KEYWORDS:
Aquatic ecosystem
Dissolved solids
Reduced flow

Response: The in-stream concentration of total dissolved solids (TDS) after the P. H. Glatfelter Company's Pulp Mill Modernization Project and after start-up of the proposed Cogeneration Facility, would be 1,001 mg/L at low-flow (45 cfs) conditions. PADER has set a specific standard for TDS to protect aquatic life [25 Pa. Code § 93(e)] at 1,500 mg/L. However, this standard is not listed as an exception (see 25 Pa. Code § 93.9) to the statewide list of specific criteria, and therefore, is not applicable to Codorus Creek. Even so, the expected concentrations of TDS in Codorus Creek following start-up of the proposed project would be below the Pennsylvania maximum of 1,500 mg/L. It should also be noted that total dissolved solids provide complexing and binding sites for toxic inorganics and other constituents, thereby acting as a "buffer" to potential toxic effects.

JW-70

KEYWORDS:
Habitat loss
Reduced flow

Response: A discussion of the effects of loss of habitat from reduced stream flow has been added to Section 4.1.5.1 of the Final Environmental Impact Statement. Low-flow conditions, by virtue of the volumetric reduction, stress aquatic communities as riffles and pool areas shrink. Under extreme low-flow conditions, stream bank area decreases and bottom substrates are exposed resulting in a temporary loss of benthic habitat. As stream flow recovers from extreme conditions, benthic communities would re-establish themselves over time.

The consumptive use of 4.3 cfs (2.8 mgd) of P. H. Glatfelter Company wastewater by the proposed facility would reduce average in-stream low-flow below the P. H. Glatfelter Company outfall by 9.6 percent, which would result in a temporary loss of aquatic habitat downstream from the P. H. Glatfelter company outfall. The loss of aquatic habitat due to this reduction in flow was not extensively addressed in the

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Environmental Impact Statement, but would vary greatly depending on the cross-sectional stream profiles, in-stream characteristics, established aquatic communities, and riparian characteristics along Codorus Creek below the P. H. Glatfelter Company outfall. The effects would be most pronounced in reaches dominated by riffles where water depth would be shallow. The effects of this reduced flow would, however, be attenuated naturally downstream as stream flow increases.

JW-71

KEYWORDS:
Dissolved oxygen
Reduced flow
Temperature

Response: Comment noted. The statement referred to by the commenter makes no reference to the "significance" of the increases in dissolved oxygen which would be expected to occur as thermal loading in Codorus Creek decreases due to operation of the proposed facility. Oxygen solubility in water increases as water temperature decreases. Therefore an increase in dissolved oxygen in Codorus Creek would be expected to occur as a result of the proposed facility.

JW-72

KEYWORDS:
Metals
Reduced flow

Response: As described in the responses to Comments JW-57, W-LMY-1/10d, and W-LMY-1/10c1, the water quality criteria for metals (e.g., lead and copper) are not currently exceeded in the vicinity of the proposed project site. The increased concentration in metals would not necessarily result in exceedance of criteria, because the criteria limits increase with hardness levels. It is acknowledged that the consumption of flow by the proposed project would increase the concentrations of these metals but not to the point of an exceedance near the proposed project.

TETHYS Consultants, Inc.
Suite 234, Building #3, 2001 North Front Street, Harrisburg, PA 17102

Page 4
Dr. Van Ooteghem
January 17, 1995

COMMENT NUMBER	PAGE/LINE REFERENCE	REVIEW COMMENT	
14	4-94, Line 3	Biotic index values provided in the *Biodiversity Study for Codorus Creek (Environ, 1994a)*, indicate that water quality gradually declines below the Glatfelter discharge. Therefore, the presence of pollution sensitive taxa below the discharge does not necessarily imply that there are no adverse downstream impacts.	JW-73
15	4-94, Line 6	The results of PADER's study indicated that undiluted wastewater had sublethal effects on fathead minnows. Therefore, P.H. Glatfelter is a source of toxicity in the creek even though the effects of this toxicity are reduced once the waste stream becomes diluted with creek water. Furthermore, the results of a study performed by EA, Inc. in 1988 showed that the residual effects of wastewater from the Glatfelter facility were toxic to aquatic invertebrates.	JW-74
16	4-94, Line 16	The biodiversity of Codorus Creek has been adversely impacted. The actual extent of these impacts depends on what comparisons are made, especially when the entire aquatic community is viewed as a whole, and not as sub-communities assumed to be representative of the aquatic system.	JW-75
17	4-95, Line 18	35 cm equals 13.8 inches, not 88.9 inches.	JW-76
18	4-95, Line 19	All of the upstream stations used in this study were located at depths of 50 cm or greater. Only the sampling stations below Glatfelter were located at shallow depths of less than 35 cm. The reason for this difference is that in order to maintain the 20% illumination criterion used as the standard in this experiment, upstream stations, which have better water clarity, had to be of greater depth. Therefore, water color does influence periphyton abundance.	JW-77
19	4-99, Line 11	Even though the projected low flow concentration of chloride is less than the chronic maximum acceptable toxicant concentrations for cladocera and fathead minnows, there will most likely be sublethal effects realized. Therefore, these projected concentrations will have an adverse impact on the condition of the aquatic community.	JW-78

JW-73

KEYWORDS:
Biodiversity
Pollution tolerant

Response: Comment noted. Section 4.1.5.1 of the FEIS has been modified to discuss the gradual downstream decline in water quality as indicated by the biotic index values reported in Environ, 1994a. Taxa below the discharge consist of the more pollution tolerant forms within the ecologically sensitive orders of caddisflies (*Trichoptera*), mayflies (*Ephemeroptera*) and stoneflies (*Plecoptera*). However, highly sensitive species are also absent above P. H. Glatfelter Company's discharge point.

JW-74

KEYWORDS:
Aquatic resources
Toxicity
Wastewater

Response: Section 4.1.5.1 of the FEIS has been modified to provide a more comprehensive discussion of the results of the Pennsylvania Department of Environmental Resources (PADER) (*1987*) and EA, Inc. (*1989*) studies regarding toxicity of the P. H. Glatfelter Company wastewater.

JW-75

KEYWORDS:
Biodiversity
Codorus Creek

Response: Comment noted. The statement beginning "*Because no adverse impacts to the biodiversity of Codorus creek are currently observed,...*" has been stricken in the Final Environmental Impact Statement. However, it should be noted that the existing biological community in Codorus Creek has not demonstrated any significant losses of taxa over the decade. DOE agrees that the biological community would likely be more sensitive and diverse if the Codorus Creek watershed did not include the current percentage of industrial, agricultural, and urban runoff inputs. It is impractical to expect the current biological community to represent conditions of a pristine, unsettled watershed. The aquatic community above the P. H. Glatfelter Company's outfall, but within the WWF designated areas, does not show any significant difference in composition compared to reaches of Codorus Creek below P. H. Glatfelter Company. The reaches of Codorus Creek below Lake Marburg are subject to more stringent biological criteria, based on the CWF designation, and would be expected to have more sensitive and diverse aquatic communities than a WWF.

JW-76

KEYWORDS:
Editorial

Response: The correction noted in the comment has been made in the FEIS.

JW-77

KEYWORDS:
Color
Periphyton
Stream shading

Response: Comment noted. The section in the DEIS referred to by the commenter states that effluent color combined with stream shading resulted in reduced periphyton growth in the study referenced (*EA, Inc., 1989*).

TETHYS Consultants, Inc.
Suite 234 Building #1 2201 North Front Street, Harrisburg, PA 17102

Should you have any questions regarding the review comments presented herein, please contact the undersigned at your convenience.

Respectfully submitted,

TETHYS CONSULTANTS, INC.
Ecological Services Division

Joseph E. Gallagher
Division Manager

JW-78

KEYWORDS:
Aquatic resources
Chloride
Reduced flow

Response: DOE does not have information suggesting that sublethal (chronic) effects would result from concentrations of chlorides below the "chronic maximum acceptable toxicant concentrations" (MACT). DOE acknowledges that at low-flows, the EPA's water quality criteria for chronic exposure of freshwater aquatic life would be exceeded. However, the EPA's water quality criteria for protection of aquatic life are highly conservative, as reflected by the difference between the MACT for the species tested and the water quality criteria (these differ by a factor of 1.6). In addition, according to EPA (*1988a*), chloride toxicity is more problematic when associated with potassium, calcium, or magnesium, rather than sodium. Sodium chloride is the most prevalent form of chloride in Codorus Creek.

The Department of Energy is interested in obtaining your written comments on the Draft EIS for the proposed York County Energy Partners Cogeneration Facility in York County, Pennsylvania. Please provide your comments in the space below and print your name and address on the reverse side of this card. Your cards can be deposited in the boxes provided at the public hearing or mailed directly to the address on the reverse side.

I live 1 mile from Glatfelter plant JW-79

I have an asthmatic grand daughter she must bring her attorneys when she visits. Records prove (Dr) have a higher degree of bronchitis and heart patients in this area. The dirt caused by Glatfelter is here, bad. I must clean my porch furniture before I use it. (My porch is inclosed with wood and screen. The spoor in winter is black from the factory. The sidewalk is black with dirt. We don't need any more pollution. My daughter Lisa is from Sweden and gets the odor from Glatfelter (New Sweden is off of 83 near the Md line). This plant is not going to create jobs. And those who think so are bordline sick. Help us get our area clean & and healthy for our kids and most important for our children and grandchildren JW-80

Please do not allow this co-gen to happen. JW-81

JW-82

Name: W. Oswald

Address: 1130 Lakes Road Dr.
York, Pa. 17404

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Department of Energy
Morgantown Energy Technology Center (METC)
P.O. Box 880
3610 Collins Ferry Road
Morgantown, West Virginia 26507-0880

JW-79

Response: Please see the responses to Comments W-YCMS-1/30b and D-129/18.

KEYWORDS:
Asthma
Health effects

JW-80

Response: Comment noted. The proposed project would be expected to lower the total particle loading to the York air basin.

KEYWORDS:
Dust
Particles

JW-81

Response: Discussions of odor associated with the project site have been added to the FEIS in Sections 3.1.2 and 4.1.2.10.

KEYWORDS:
Odor

JW-82

Response: As stated in Section 4.1.12.2, the proposed project is expected to require, on average, 276 construction workers over a 3-year period. In addition, 70 full-time permanent employees would be required to operate the facility. It is anticipated that 123 of the construction workers would be York County residents and the operations staff would be hired from the local labor force as much as possible.

KEYWORDS:
Jobs

Connie Schmotzer
2428 Schoolhouse Lane
York, PA 17402
January 18, 1994

To the Department of Energy concerning the draft EIS for the YCEP facility:

This afternoon I would like to speak to two of the areas of concern that I have had in reading the Environmental Impact Statement. Both of these concern emissions of Volatile Organic Compounds, or VOCs.

My first concern is that the EIS does not adequately address the emissions of Volatile Organic Compounds. Accurate figures of this pollutant are important to York County and the region because it is a principle precursor of ozone for which we are a marginal attainment area. JW-83

As I have followed this project over the last several years the emission figures for VOC's have varied erratically without any concrete explanation. In the project proposal plan it was stated that "since the VOC emissions from the facility will be greater than 50 TPY, some VOC offsets will be required to comply with the ozone non-attainment."

When first presented in the Citizen's Advisory Committee in West Manchester the VOC emissions total had fallen to 26.3 TPY. But this figure was corrected to read 96.3 TPY (consistent with the earlier estimate) for the final report. 26.3 TPY followed the project to N. Codorus Township. And now, here in the draft EIS, Air Products estimates emissions to be 48 TPY, a convenient 2 TPY below the required offset level. The increase in the amount of coal burned does not account for the new figure. If there are valid engineering changes or data that support this wide variability of VOC emissions they need to be addressed. An explanation is in order. JW-84

I would also suggest that the EIS must address the total VOC's emitted from the plant. The draft mentions 1 TPY from increased traffic. There will also be significant emissions from the cooling towers. Since the waste water will be coming from the Air Products plant and since this plant will be increasing the total tonnage of VOC's in our air, shouldn't the sum total of emissions be considered in the EIS? JW-85

Secondly, in section 4.1.2.10 dealing with the effects of the project on vegetation the EIS includes most major pollutants but omits discussion of VOC's. Nitrogen oxides are discussed because of their role in ozone production and therefore possible plant and crop damgage. JW-86

VOC's are the other principle component of ozone. If VOC emissions of 50 TPY is significant enough to require offsets, certainly the increased VOC's caused by this project should be included in this discussion. JW-87

JW-83 ***Response:*** Please see the response to Comment J-78/9.

KEYWORDS:
Ozone
VOCs

JW-84 ***Response:*** Please see the response to Comment J-78/17.

KEYWORDS:
Documentation
Emissions
VOCs

JW-85 ***Response:*** Please see the response to Comment J-80/4.

KEYWORDS:
Cooling towers
Total emissions
Traffic
VOCs

JW-86 ***Response:*** Please see the response to Comment J-80/16.

KEYWORDS:
Vegetative effects
VOCs

JW-87 ***Response:*** Please see the response to Comment J-80/16.

KEYWORDS:
Offsets
VOCs

In the analysis of NOX on page 4-50 the draft states:

"Since there would be at least a 15% decrease in oxides of Nitrogen___ and given that this pollutant is a principle precursor to ozone formation, then one could extrapolate that an increase in ozone levels due to the proposed project would be very unlikely." JW-88

This statement is not necessarily true. One, it does not take into account the increase in VOC emissions caused by this project. (The Office of Technology Assessment states that control of VOC's has been the backbone of national ozone control strategy). Secondly, the nature of the formation of ozone is complicated and not easily predicted.

It would seem that if NOX were decreased, ozone levels would not be increased, but such is not always the case. The U.S. Office of Technolgy Assessment speaks to this in its document "Catching Our Breath: Next Steps for Reducing Urban Ozone" . It cites an EPA model study of ozone formation and transport throughout the NorthEast over a 2 week period. The study showed that cutting NOX by one-third and VOC's by 50% resulted in modest ozone benefits for most nonattainment cities compared to where VOC's alone were controlled. However, in some areas, decreasing NOX actually increased ozone. The study indicated that further regional and city modeling needed to be done in order to predict how ozone can be controlled in a specific area. To my knowledge no study has been done for the York area. JW-89

Our region also faces an increased problem with ozone from automobile emissions because of recent unfortunate legislation from our State House. This forces us to take a closer look at the VOC emissions from point sources and consider their harm to our environment.

I have to conclude that the EIS has not thoroughly considered all the data and that the statement on page 6-11 that "the cumulative effects may be viewed as benign if not beneficial" is premature. I ask that you please address these points and continue your review. JW-90

JW-88 ***Response:*** Please see the response to Comment J-81/7.

KEYWORDS:
Ozone
Precursors

JW-89 ***Response:*** Comment is noted.

KEYWORDS:
Ozone
Precursors

JW-90 ***Response:*** Please see the response to Comment J-83/9.

KEYWORDS:
Cumulative effects
Ozone

Questions raised by Michael S. Schmotzer concerning the
DRAFT ENVIRONMENTAL IMPACT STATEMENT
for the Proposed YORK COUNTY ENERGY PARTNERS COGENERATION FACILITY

18 January 1995

The stated goal of the Department of Energy (DOE) Clean Coal Technology (CCT) Program is to "demonstrate advanced coal utilization technologies that are energy efficient and reliable and that are able to achieve substantial reductions in emissions as compared with conventional coal technologies." (page i of the Draft EIS).

42 USC 4332 and 40 CFR 1502.14 requires the preparor of the EIS to consider alternatives to the proposed plan. This has been done in paragraphs 2.2.4 and 2.2.5. and a summery provided in paragraph 2.3. However, I believe that DOE's analysis is inadequate and that the conclusion in 2.3 is erroneous. There are several points that require further elaboration or correction.

Para. 2.2.4 (page 2-70ff) discusses the "No-Action Alternative." It assumes that if the DOE money is not used that York County Energy Partners (YCEP) will not construct the proposed co-generation facility and that three negative consequences would result: (1) DOE would not achieve one of the goals of the CCT Program, (2) the P.H. Glatfelter Company Power Boiler No. 4 would continue to pollute York County and (3) Met-Ed would have to build another power plant to make up for a future short-fall in commercial energy needs.

I can not speak to point #1 from personal knowledge, but I believe that there has be pervious testimony to the effect that this technology has been reliably proven at other sites in the U.S. and abroad and that there is sufficient technological data to place the circulating fluidized bed technology within a spectrum of coal burning power plants and alternative energy sources. It does not make sense to build this plant if we already know that better things are out there. Therefore, this project is not necessary. JW-91

In your justification to reject the No-Action Alternative, (Section 2.3. Page 2-83) you state that, "the opportunity to reduce air emissions through curtailment of P. H. Glatfelter Company Power Boiler No. 4 would be lost." I believe that such is not the case. P. H. Glatfelter must comply with the Clean Air Act, its amendments and various other federal and state laws governing air pollution from Boiler No. 4. I have a copy of the Pennsylvania Department of Environmental Resources (DER) Plan Approval dated Aug. 18, 1994. It allows Glatfelter to modify Boiler No. 4 by installing low NOx burners with separate overfire air. While Glatfelter should be commended for bringing their facilities into compliance with clean air requirements ~~but~~ it does not automatically follow that we should use DOE (i.e. tax) dollars to assist them. Like other U.S. industries Glatfelter should meet the requirements and they should meet them with their own capital expenditures. We do not yet know if this modification has done the job. According to the DER Program Manager, the "regulatory compliance JW-92

JW-91

Response: Please see the responses to Comments D-37/16, D-39/13, D-90/2, and D-100/9.

KEYWORDS:
Commercialization
status

JW-92

Response: Please see the response to Comment J-89/7.

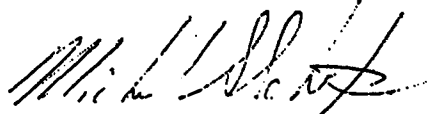
KEYWORDS:
Alternatives analysis
Assumptions

rate" is not until May 31, 1995. I must assume that should the modifications fail to achieve their required end, further changes will be made by Glatfelter. Therefore, the DOE project is unnecessary. JW-93

The EIS states on page 2-71 that, "Met-Ed has documented the need for an additional 500-550 MW of electricity by the year 2000." However, that statement is not in full agreement with Section 1.3.4 (page 1-12) which says that, "On the basis of an independent review of Met-Ed's need for power, DOE has determined (emphasis added) that a need for additional electric generating capacity exists." I believe that there has been other testimony to the effect that the DOE and Met-Ed do not fully agree on the need for future energy growth. JW-94

Furthermore, while the EIS offers two scenarios of alternative power plant construction it totally fails to discuss that a viable program of conservation could obviate the anticipated need for power plant construction. JW-95

Since supporting existing regional energy grids is not among the stated goals of the CCT, the EIS fails once again, to clearly justify why DOE dollars should be spent on this project. JW-96



Michael S. Schmotzer
2428 Schoolhouse Lane
York, PA 17402
(717) 757-6931

JW-93 ***Response:*** Please see the response to Comment J-89/7.

KEYWORDS:
Low NO_x burners
Power Boiler No. 4

JW-94 ***Response:*** Please see the response to Comment J-90/18.

KEYWORDS:
Need for power

JW-95 ***Response:*** Please see the response to Comment J-91/9.

KEYWORDS:
Alternatives
Conservation

JW-96 ***Response:*** Please see the response to Comment D-83/5.

KEYWORDS:
Need for project

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
One Ararat Boulevard
Harrisburg, Pennsylvania 17110
November 16, 1994

(717) 657-4587

Southcentral Regional Office

Ms. Margaret Klunk
RD 4, Box 4624
Spring Grove, PA 17362

Dear Ms. Klunk:

I am writing in response to your October 11, 1994 letter and will attempt answer your questions in the order you presented them.

As part of their Reasonably Available Control Technology (RACT) Plan P. H. Glatfelter retrofitted No. 4 Power Boiler with low NO_x burners and separate overfire air (SOFA) during their scheduled shutdown in July, 1994. The regulatory compliance date is May 31, 1995. You are correct in assuming that emission credits are based upon emissions after the installation of RACT. Emission credits are generated using actual emissions, not potential or permitted emissions. SO_2 and PM-10 emissions from Glatfelter's boilers are directly affected by the 1990 Clean Air Act Amendments.

Enclosed are copies of both the current Operating Permit for No. 4 Power Boiler and the Plan Approval which authorized the addition of the low NOx burners and SOFA on that boiler.

The following is a listing of Glatfelter's criteria pollutant emissions, expressed as tons, from each of the boilers in 1993.

	PM-10	SO_x	VOC	NO_x	CO
No. 1 Recovery	166.8	257.1	88.6	136.3	791.5
No. 2 Recovery	71.6	110.5	38.0	58.6	339.2
No. 1 Power	104.9	2671.5	5.4	692.5	136.4
No. 3 Power	10.8	359.8	0.4	102.3	2.8
No. 4 Power	136.7	3588.4	3.7	1113.0	28.4
No. 5 Power	6.2	400.0	5.6	613.1	450.0

You have posed several questions concerning computer modeling of the YCEP cooling tower. Modeling, such as that done for the Environmental Impact Statement, is not required by the Department for the cooling tower emissions. That is because the issues examined by Roy F. Weston for YCEP, fogging/icing and deposition are not regulated by the Department.

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The use of Glatfelter mill effluent by YCEP as cooling water is of interest for a different purpose, the potential emission of air toxics. That portion of the Department's review is very much ongoing.

Modeling, as you know, is required by the Department for stack emissions from the YCEP CFB. A preference for on-site meteorological data for that modeling effort versus wind data collected at the original West Manchester Township site was first raised in a March 1, 1994 letter to Dr. Archer from Mr. Daniel L. Crerand as Elected Spokesperson for Clean Air, Safe Environment. I, in turn, sought the opinion of Mr. Robert Simonson, Chief, Meteorology Modeling Section of the Department's Bureau of Air Quality Control. In his written reply to me, which is enclosed, Mr. Simonson explained why the West Manchester Township wind data is scientifically applicable to the North Codorus site. That is a decision which we must ask Mr. Simonson to make in his role as a professional meteorologist for the Department.

All of the Continuous Emission Monitors including Total Reduced Sulfur (TRS) on the No. 3 Recovery boiler passed their performance testing and are retroactively certified from their testing dates for use in determining compliance with the applicable emission standards. The certification date is June 9, 1994 for all monitors except opacity. The opacity monitor certification date is May 27, 1994. TRS emissions have been consistently less than 0.5 ppm versus an allowable limit of 5.0 ppm.

Mr. John F. Krueger, York District Supervisor, has participated in the preparation of this letter. If you have any questions, you may contact either of us at the letterhead address.

Very truly yours,

Leif Ericson
Air Quality Program Manager

Enc.
cc: Southcentral Region Case File
York District Case File

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
SOUTHCENTRAL REGION - FIELD OPERATIONS
AIR QUALITY CONTROL PROGRAM

PLAN APPROVAL

Approval No: 67-306-004A

Source & Air Cleaning Device: No. 4 Power Boiler (Combustion Engineering) Controlled by an ESP (Research Cottrell)

Owner: P. H. Glatfelter Company

Address: 228 South Main Street
Spring Grove, PA 17362

Attention: Mr. Robert E. Callahan
Environmental Manager

Location: Spring Grove Hill
Spring Grove Borough
York County

In accordance with provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and with Chapter 127 of the Rules and Regulations of the Department of Environmental Resources, the Department on AUG 18 1994 approved plans for modification of the above indicated air contamination source.

This PLAN APPROVAL expires December 31, 1995.

The plan approved is subject to the following conditions:

1. The No. 4 Power Boiler is to be modified in accordance with the plans submitted with the application (as herein approved).

2. See attached.

Notify the person noted below when the installation is completed so that the source can be inspected for issuance of an OPERATING PERMIT.

NOTE: Mr. Jeffrey J. Moyer
Air Pollution Control Engineer
One Ararat Boulevard
Harrisburg, PA 17110
(717) 657-4587

Program Manager

Southcentral Region 67-306-004A
York District
Permits

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PLAN APPROVAL

APPROVAL NO. 67-306-004A

P. H. GLATFELTER COMPANY

Conditions, Continued

2. This Plan Approval authorizes temporary operation of the source(s) covered by this Plan Approval provided the following conditions are met:

   a. The Department must receive written notice from P. H. Glatfelter Company of the completion of construction and P. H. Glatfelter Company's intent to commence operation at least five (5) workings days prior to the completion of construction. The notice must state when construction will be completed and when P. H. Glatfelter Company expects to commence operation.

   b. Operation is authorized only to facilitate the start-up and shake-down of sources and air cleaning devices, to permit operations pending the issuance of an Operating Permit or to permit the evaluation of the source(s) for compliance with all applicable regulations and requirements.

   c. This condition authorizes temporary operation of the source(s) for a period of 180 days from the date of commencement of operation, provided the Department receives notice from P. H. Glatfelter Company pursuant to subpart a., above.

   d. P. H. Glatfelter Company may request an extension if compliance with all applicable regulations and Plan Approval requirements has not been established. The extension request shall be submitted in writing at least 15 days prior to the end of this period of temporary operation and shall provide a description of the compliance status of the source, a detailed schedule for establishing compliance, and the reasons compliance has not been established.

   e. The notice submitted by P. H. Glatfelter Company pursuant to subpart a., above, prior to the expiration of this Plan Approval, shall modify the plan approval expiration date. The new plan approval expiration date shall be 180 days from the date of the written notice.

3. This plan approval covers the installation of low NO_x burners with separate overfire air on Power Boiler No. 4.

4. The final Nitrogen Oxides (NO_x) emissions limit shall be determined by analyzing the CEMS data after the source has been operating for twelve (12) months. During that 12 month period NO_x emissions shall not exceed 0.86 lb/MMBTU on a thirty (30) day rolling average as measured by the existing certified continuous emissions monitor.

5. Within sixty (60) days after achieving the maximum production rate at which the affected facility will be operated, but not later than one hundred eighty (180) days after initial start-up of such facility, the owner or operator shall conduct a performance test to determine Carbon Monoxide (CO) emissions. Test Method 10 or equivalent shall be used.

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
SOUTHCENTRAL REGION - FIELD OPERATIONS
AIR QUALITY CONTROL PROGRAM

OPERATING PERMIT RENEWAL

In accordance with provisions of the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, as amended, and Section 127.24 of Chapter 127 of the rules and regulations of the Department of Environmental Resources, the Department hereby reissues this permit for the operation of the air contamination source described below.

Permit No: 67-306-004

Owner: P. H. Glatfelter Company

Address: 228 South Main Street

Spring Grove, PA 17362

Attention: Mr. Robert E. Callahan

Environmental Manager

Source & Air Cleaning Device: Three Power Boilers (Nos. 1 & 3 - Riley Stoker and No. 4 - Combustion Engineering) Controlled by an ESP (Research Cottrell) and an Ash Storage Tank Controlled by a Fabric Collector (Both - United Conveyor)

Location: Spring Grove Mill
Spring Grove Borough
York County

This permit is subject to the following conditions:

1. That the source and any associated air cleaning devices are to be:

   a. operated in such a manner as not to cause air pollution;
   b. in compliance with the specifications and conditions of the applicable plan approval issued;
   c. operated and maintained in a manner consistent with good operating and maintenance practices.

2. This permit is valid only for the specific equipment, location and owner named above.

3. This operating permit is valid for a limited time only and may be renewed before its expiration. Requests for an operating permit renewal must be in writing and must be accompanied by a fee in the amount of $400 payable to the "Commonwealth of Pennsylvania - Clean Air Fund." The request should be made on the attached Interim Application for Renewal of a Permit to Operate form and must be received by the Department along with a completed Compliance History form (attached) no later than FEB 1 1993.

Failure to comply with the conditions placed on this permit is a violation of Section 127.25. Violation of this or any other provision of Article III of the rules and regulations of the Department of Environmental Resources will result in suspension or revocation of this permit and/or prosecution under Section 9 of the Air Pollution Control Act.

Issued: May 1, 1993

Expires: April 30, 1998

SIGNED

Program Manager

Southcentral Region 67-306-004
Lancaster District
Permits

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PLAN APPROVAL

APPROVAL NO. 67-306-004A

P. H. GLATFELTER COMPANY

Conditions, Continued

6. At least thirty (30) days prior to the actual testing, a pretest procedure shall be submitted to the Program Manager. The items which are to be included in the pretest procedure are outlined on the attached sheet.

7. The performance test shall consist of three repetitions of the applicable test methods. For purpose of compliance with an applicable standard of performance, the average results of ~~the~~ repetitions shall apply.

8. The stack test shall be performed over such a period or periods as necessary to accurately determine the maximum emissions during that time.

9. At least two (2) weeks prior to the test, the Program Manager shall be informed of the date and time of the test.

10. Within sixty (60) days after the source test, two copies of the complete test reports shall be submitted to the Program Manager for approval.

11. Issuance of this plan approval is not a RACT determination.

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Fluidized Bed Combustion – Volume 1
ASME 1993

DESIGN OF TWO 230 MWe REHEAT CIRCULATING FLUIDIZED BED BOILERS FOR TUROW POWER STATION BOGATYNIA, POLAND

B. N. Gagila
Pyropower Corporation

J. Laskawiec
Turow Power Station
Bogatynia, Poland

Z. Misztal
Elektrim S.A. Trade Company

ABSTRACT

In July 1992, Pyropower Corporation was selected for the design, supply and erection of two 230 MW, reheat coal fired circulating fluidized bed boilers for the Turow Power Station in Bogatynia, Poland. This order represents the largest circulating fluidized bed (CFB) boiler project ordered to date. This paper presents the boiler design parameters, design arrangement and specific unique design features such as the reheat systems and reheat temperature control. A particular concern with the boiler design was the low rank east European brown coal and the large furnace which had to fit into the limited space of the existing plant. This two-unit project represents the first phase of a plan to replace six of the ten, thirty-year old boilers. A test burn in Pyropower's Research and Development Center will confirm selected design parameters.

POLISH POWER INDUSTRY AND THE ENVIRONMENT

Eighty percent of the power produced in Poland is based on burning hard coal and brown coal. Poland's current usage of electrical energy is low on a per capita basis and high on Domestic National Product (DNP) basis. However, forecasted economical changes in industrial and domestic usage is expected to result in increased energy consumption.

The Polish power industry is characterized by the following:

- Poland has large hard coal and lignite (brown) coal resources, a small gas supply and practically no oil.
- The gas and particulate emissions from Polish power plants make Poland one of the highest atmospheric polluters in Europe.
- Coal accounts for 78% of the total energy production use in Poland and equals around 180 million tons of coal per year.
- Compared to the developed countries Poland has low electric energy usage per capita for domestic and agricultural use, which is expected to increase.
- Compared to the developed countries, Poland has a very high electric energy usage per Domestic National Product (DNP), which indicates Polish industry is very inefficient.

Poland has 54 electric generating and heat generating plants in operation. The total capacity is about 28,900 MW_e. In 1989, these plants used approximately 57 million tons of hard coal and 70.5 million tons of brown coal. The greatest concentration of plants is near Poland's southern border. The map (Figure 1) shows the most polluted regions in Poland. In addition to these utility power plants, there are about 230 small electric and industrial generating plants with a total capacity of 3,150 MW_e. In spite of the use of electrofilters, the total particulate emissions from the power industry is estimated at 1.0 - 1.2 million tons per year. This amounts to 30 - 35% of the nation's particulate emissions. The emission of sulfur dioxide from energy production was 2.8 to 3.0 million tons in 1989 (approximately 70% of the country's total emissions). The figures for nitrogen oxides are 0.6 to 0.65 million tons (40% to 45% of nationwide NO_x emission.) SO_2 emissions generated nationally, as well as that from across borders is an average of 13.4 t/km^2 (5.17 t/mi^2).

PROJECT BACKGROUND

This project has been initiated by Turow Power Station in an effort to rehabilitate and extend the economic life of the power station and reduce pollution. To meet Poland's new environmental standards, which are now compatible with

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Western Europe, Turow was faced with two options: either shut down the 10 Unit 2000 MW power station; or bring it up to Western environment standards. The plan is based on replacing and upgrading Units 1 through 6 from 200 MW units to 230 MW units, removing Unit 7 and adding flue gas desulfurization control equipment to Units 8, 9 and 10; the newest units. Units 1 and 2 are now 30 years old and replacement of the existing pulverized boilers with new clean coal fluidized bed technology was chosen as the preferred approach.

REPOWERING WITH FLUIDIZED BED MAKES ECONOMIC SENSE

Considering Poland's economic environment and expected electric utility load growth, rehabilitation of existing utility power plants is gaining increased emphasis. In Turow's case, faced with aging units, continued needs for generation capacity and the requirement to reduce emissions, this approach offers an attractive alternative. As plants approach the end of their 25 - 30 year design life, their availability will begin to decrease significantly. Efficiency begins to fall off and maintenance costs increase dramatically. This trend is not new to most utilities and indicates a plant is near the end of its economic life. Faced with these circumstances, Turow had to decide whether to decommission the station or make a major life extension investment.

In order to meet new lower emissions requirements of SO_2, NO_x and particulate, older plants such as Turow are required to install expensive high maintenance flue gas desulfurization or be faced with heavy financial penalties, due to high emissions of pollutants, resulting in eventual plant closure and decommissioning. Rehabilitation and repowering using environmentally acceptable CFB technology makes an attractive combination for Turow Power Station. On an economic basis, it offers 25 additional years of plant operation, at a cost per kilowatt that is only 40 to 60 percent of the cost of a new plant.

Use of the existing site reduces cost and simplifies permitting and approval procedures, compared to new site development. Reduction of existing site emissions meets new environmental requirements. Rehabilitation of Turow Power Station will also result in:

- Significant improvement in station availability/reliability, with corresponding reduction in maintenance cost.
- Improvement in the plant heat rate and increased capacity.
- A fast-track short construction schedule of 30 months from beginning of engineering to turbine roll.
- A technical and cost effective basis for responding to the environmental issues.

Advantages of CFB versus PC (Pulverized Coal)

These advantages include:

- AHLSTROM PYROFLOW® CFB will fit into the Turow Power Station's existing space and use existing foundations.
- CFB proven technology will improve Turow Power Station performance and reliability.
- CFB technology will reduce maintenance (i.e., pulverizer and scrubber).
- CFB clean combustion technology addresses Poland's environmental requirements.
- Fuel preparation is easier and less costly with a CFB and requires minimal maintenance.
- CFB use means greater fuel flexibility with no slagging.
- The circulating bed and lower combustion temperatures allow excellent fuel burnout and turndown with low grade fuels.
- CFB achieves very low SO_2 emissions with no high maintenance scrubber requirement.
- Low NO_x emissions are inherent with CFB, no bulky SCR is necessary.
- Low combustion temperature means low heat flux and no waterwall tube overheating.
- Repowering with fluidized bed makes economic sense.
- CFB availability record.

TUROW POWER STATION

Turow Power Station is located in the Silesia region of southern Poland. The plant is situated in the "Turow Hollow" at the very southeast corner of the country near the borders of Germany and the Czech Republic. Mining of the local brown coal dates back to the 1770's.

Turow Power Station is at the center of an area classified by the European Community (EC) as the "Black Triangle". This area which includes areas in the three countries has very high concentration of pollution.

In 1962 the first two units of the Turow Power Station began commercial operation. For over thirty years Turow has provided the lowest cost power in Poland. The last unit of the 10-unit station was completed at the end of 1971. Annual energy production at the plant gradually increased during the early operation from 1972, reaching over 14.5 billion kwh in 1976. The primary equipment, including the existing boilers and the turbine generators, are of Soviet design. Over the years, the plant engineers and technicians have made many improvements which contribute to the plant's successful operating record.

This plant marked the first time in Poland and Europe that large 200 MW units were constructed in a giant 10-unit station yielding a combined output of over 2,000 MW. Today, despite 30 years of operation and normal wear and tear, Turow Power Station still provides 14 billion kwh annually, which is over 10% of the Polish electrical power production. Numerous modernization projects have been conducted at the plant which has decreased the forced outage rate from nearly 20% in 1972 to 4.7% in 1985. The engineers and technicians at the plant have filed over 3,000 inventions and the station has been awarded several high distinctions from the Polish government. Even today, Turow Power Station remains the second largest power station in Poland.

Turow Power Station contracted Elektrim to assist them with the commercial aspects of the rehabilitation project and Energoprojekt to assist in the technical aspects of the project. Elektrim has prepared the contracts and commercial documents including financing support. Energoprojekt has prepared technical specification, evaluations and consulted Turow on all technical issues.

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Elektrim Background

Elektrim was established as a state-owned trading company on November 16, 1945. It was one of a group of Polish companies which had responsibility for the import and export of goods and services in Poland. Elektrim's initial business was the import of electrotechnical equipment and industrial goods for the reconstruction of the Polish economy after the war. Gradually, Elektrim began to export Polish goods from the electrotechnical sector to the old Soviet Bloc, East European and other countries. This aspect of the business has since expanded and is now larger in value terms than the import business.

Elektrim has fifteen foreign representative offices: in the former USSR (where it has four offices), Bulgaria, Czech Republic, Republic of Slovakia, Hungary, Romania, Bangladesh, China, Egypt, India, Turkey and the former Yugoslavia and has developed a network of agents and distributors in the non-CMEA countries.

Elektrim also has shareholdings in several companies established outside Poland. These companies are located in Austria, France, Germany, Great Britain, Malaysia, the United States of America, India and Turkey.

Energoprojekt Background

Energoprojekt is a power engineering company and the largest consulting and design organization in Poland. Energoprojekt was established as a state-owned company in 1949 to design the rebuild of the Polish and East European power industry. Energoprojekt employs over 2100 engineers and other technical specialists in six branch offices located in Gliwice, Katowice, Krakow, Poznan, Warszawa and Gdansk. In Poznan there is also a Research and Manufacturing Division providing unique equipment for the power sector. The head office of Energoprojekt is in Warsaw.

Over the last 42 years Energoprojekt has designed, modernized and engineering thermal power stations fired with fossil fuels in China, Czechoslovakia, Finland, Germany, Greece, Hungary, India, Iran, Mongolia, Turkey, Vietnam and Yugoslavia.

Pyropower Corporation Background

Ahlstrom Pyropower, Inc. is a U.S. corporation and a wholly-owned subsidiary of the A. Ahlstrom Corporation. The A. Ahlstrom Corporation, established in 1851, is a multi-national, privately owned, integrated industrial company headquartered in Helsinki, Finland. The company has been involved in fluidized bed combustion since the 1970's when it began building CFB boilers for a variety of process applications. The company's business sectors are Ahlstrom Pyropower, Ahlstrom Paper, Ahlstrom General Products and Ahlstrom Machinery. The number of employees is approximately 12,000 with annual sales in excess of $2 billion.

In the late 1970's, A. Ahlstrom Corporation's executive management made a major decision to commit extensive resources to develop the American market for their pulp and paper and energy products. This commitment involved the creation of four operating subsidiary companies. One of these companies - Pyropower Corporation- began as a joint venture in 1980 between GA Technologies of San Diego, California and Ahlstrom to market Pyroflow circulating fluidized bed (CFB) boilers in the U.S. Today, Ahlstrom Pyropower, Inc. is the sole owner of Pyropower and the subsidiary company has achieved a high level of success in marketing and engineering efficient and environmentally-sound solid fuel fired CFB boilers to industrial process, cogeneration and electric utility customers for steam and/or electricity generation.

Since its establishment in 1980, Pyropower has booked in excess of $500 million in sales, including the world's first circulating fluidized bed boiler for a utility company: Pyropower supplied a Pyroflow boiler for the Colorado-Ute Electric Associations refurbishment of its Nucla generating station. In addition, Pyropower is providing a 165 MWe CFB to Nova Scotia Power, Inc.

A. Ahlstrom Corporation acquired 80% of the shares of FAKOP (Fabryka Kotlow Przemyslowych), the oldest established Polish boiler manufacturer, in a privatization agreement with the Polish Ministry of Privatization. The remaining 20% of the shares will be offered to FAKOP's employees. FAKOP is part of the Ahlstrom Pyropower Sector.

The $2.04 million purchase is based upon Ahlstrom Pyropower transferring the technology to manufacture their advanced circulating fluidized bed (CFB) boilers at FAKOP in Sosnowiec, Poland, for European and worldwide markets.

The renamed Polish company, AHLSTROM FAKOP, Ltd., will manufacture CFB boilers in addition to its traditional products for domestic applications as well as boilers for export. The company employs approximately 450 people.

PYROFLOW CFB TECHNOLOGY

The Pyroflow circulating fluidized bed process utilizes a water-cooled combustion chamber and a refractory-lined hot cyclone to recirculate hot bed material consisting mainly of inert ash, as shown in Figure 2. The major portion of the combustion air is furnished at different pressures from two fan systems to minimize power consumption. This air suspends the circulating bed which is augmented by fuel and limestone fed into the lower part of the combustor. Combustion takes place in a hot, turbulent fluidized bed environment that contains a relatively low concentration of combustibles. A reaction between limestone and sulfur in the fuel takes place in the combustor at a temperature range optimum for the reaction of approximately 871°C (1600°F) to control SO_2 emissions. Heat is transferred to the water cooled membrane combustor walls and other evaporative superheater surface in the combustion. The larger fraction of the bed material is recirculated to the hot cyclone through a non-mechanical seal back to the combustor. From the outlet of the hot cyclone, the gas enters the convective heat transfer surfaces in the back pass. Hot gas first encounters the final (third) superheat stage then the primary superheat stage and finally the economizer and tubular air heater. Fly ash is removed by electrofilters ahead of the stack.

The rate of bottom ash material is controlled to maintain a constant bed inventory. The bottom ash consists of fuel ash and reacted limestone particles and because of the low combustor temperature there are no large slag accumulation typical of pulverized coal units.

The hot circulating bed of the CFB provides a constant ignition source as long as it is maintained above a certain minimum temperature characteristic of the fuel being fired.

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TABLE 1 - TUROW POWER STATION DESIGN PARAMETERS

Fuel (See Table 2)		Polish Brown Coal
Main Steam		
Flow	1,471,700 lb/hr	185.4 kg/s
Pressure	1985 psi	137 bar
Temperature	1005°F	540°C
Cold Reheat		
Flow	1,318,500 lb/hr	166.0 kg/s
Pressure	386 psi	26.6 bar
Temperature	585°F	311.8°C
Hot Reheat		
Flow	1,318,500 lb/hr	166.0 kg/s
Pressure	366 psi	25.2 bar
Temperature	1005°F	540°C
Feedwater		
Temperature	468°F	242.4°C

TABLE 2 - FUEL ANALYSIS

PROXIMATE ANALYSIS	% by weight
Moisture	44.0
Volatile Matter	19.8
Fixed Carbon	13.7
Ash	22.5
ULTIMATE ANALYSIS	**% by weight**
Carbon	23.90
Hydrogen	1.90
Sulfur	0.60
Nitrogen	0.20
Oxygen (diff.)	6.80
Moisture	44.10
Ash	22.50
Chlorine	0.00
Higher Heating Value KJ/kg	9745
Higher Heating Value Btu/lb	4190

Unlike pulverized coal firing, the fuel feed can be interrupted without danger.

Due to the low combustion temperature of the CFB, oxides of nitrogen are at much lower levels than those achievable in the pulverized coal system. Sulfur reduction in excess of 90% can be attained in the circulating bed.

TUROW PROJECT SCOPE

The scope of the Turow project includes design, supply and erection of two complete boiler islands including all steel and auxiliary services. The boundaries of the Pyropower scope are from the outlet of the existing coal bunkers to the stack. The boiler scope also includes the mainsteam and reheat steam lines to the turbine.

PROJECT SPECIFIC DESIGN PARAMETERS

The Turow Power Station design parameters as shown in Table 1 are fairly typical for a utility plant in the 230 MW size class. The new plant emissions will be as shown in Table 3.

SCALE-UP EXPERIENCE

Ahlstrom Pyropower's position as the leader in CFB boiler technology has been based on a careful and cautious program of gradually scaling the technology up to larger sizes. Every one of the approximately 70 Pyroflow units in operation has met its design steam conditions even though many of these units represented first time application with respect to size. Based on the scale-up knowledge already incorporated into the Pyroflow design and the current scale of commercially operating Pyroflow boilers, the use of the Pyroflow technology for the Turow project represents a conservative scale-up.

The course of scale-up of the Pyroflow furnace plan area can be used as an example of a cautious, careful scale-up solids mixing , solids movement, heat transfer, heat release profiles and other critical process characteristics. All of these parameters work together to determine steam generation rate, boiler efficiency and pollutant emissions levels. Therefore understanding furnace plan area effects with respect to size is critical to the successful scale-up of the technology.

The Pyroflow furnace size has gone through a process of gradual scale-up in size. Experience gained at each step formed the basis for the designs at larger sizes. Figure 3 shows a plot of MWe versus year of operation for a series of milestone Pyroflow boilers. All of these units are currently in operation except the Nova Scotia boiler and, of course, the Turow boiler.

Our Vaskiluodon (Seinajoki) boiler, which went into operation in August 1990, has been generating performance information to supplement the design basis for the Turow boiler. Pyropower's design for the Turow boiler represents a scale-up factor of less than 1.5 over the Vaskiluodon boiler - a commercially operating unit. The risk associated with scale-up is minimized with the Pyroflow CFB boiler design due to the advanced stage of the technology scale up process for Pyroflow boilers.

BOILER ARRANGEMENT

One of the special problems facing Pyropower's design team was fitting the large 230 MWe brown coal boiler into the restricted space of the old existing 200 MWe pulverized coal boilers, (Figures 4, 5 and 6). A further restriction necessitated use of the existing foundations and structural steel columns up to about 33 meters (110ft.). This requirement was necessary for several reasons: (1) the financial savings of using the existing foundations and heavy base columns; (2) schedule saving of not installing new foundations; (3) and most important was the logistics of keeping the existing coal bunkers. The coal conveyors and the coal bunkers are supported by the structure for Units 1 and 2. If all of the existing structural steel were to be removed and foundations

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TABLE 3 - TUROW EMISSIONS AT MCR

	Guarantee Value		Predicted Value	
NOx	150 g/GJ	(0.142 lb/MMBtu)	140 g/GJ	0.132 lbs/MMBtu
SO_2	140 g/GJ	(0.132 lb/MMBtu)	90 g/GJ	0.085 lbs/MMBtu
CO	135 g/GJ	(0.128 lb/MMBtu)	65 g/GJ	0.061 lbs/MMBtu
Particulate	50 mg/nm³	(0.013 grains/acf)	50 mg/nm³	0.013 grains/acf
Boiler Efficiency*	90.0%		90.5%	

* Based on lower heating value

bunkers. The other option would have been an alternate or temporary coal conveyor system. None of these options were considered viable or acceptable.

Pyropower engineers working with Energoprojekt were able to devise a scheme using all but one of the existing column lines. This one column which had to be moved was in the backpass area and able to be relocated by bridging two existing foundations.

Another specific desire of the Power Station was to achieve a boiler efficiency of at least 90% based on the fuel lower heating value. Coupled to this was a long history of serious problems with backend tube erosion in the convection pass. Based on this history, Turow Power Station operation and maintenance personnel wanted low convection pass gas velocities. These low cumulative requirements resulted in a very large convection pass and air heater.

The primary auxiliary equipment includes the following:

- 2 - Primary air fans
- 2 - Secondary air fans
- 2 - Induced draft fans
- 6 - Coal feeders
- 2 - Loop seal blowers
- 3 - Limestone blowers
- 4 - Bottom ash screws

Convective Reheater

The reheater is arranged in multiple banks and located in the convection pass. Reheat steam is distributed to the inlet header, passes through two stages of reheat and on to the intermediate pressure turbine.

The design of our patented (U.S. patent number 5,038,565) reheat steam bypass temperature control system avoids many of the problems present in other designs. By locating all of the reheat surface in the backpass, incorporating a simple bypass mechanism to control temperature and designing the unit such that design metal temperatures are not exceeded in a no-flow situation up to 40% load, Pyropower has developed a design that is simple, reliable and has an inherently low pressure drop.

Reheater Steam Temperature Control

This patented reheat steam temperature control method is provided by a reheat steam by-pass system. In general, reducing the steam flow to a convection section will result in considerable reduction in heat absorption. As the steam temperature approaches the gas temperature the effective thermal head available for heat transfer is reduced. This is the principle used in Pyropower's reheat steam temperature control method.

The total surface of the reheater is based on the required control load heat absorption to make the desired reheat temperature. At higher loads more cold reheat steam is bypassed to reduce the heat absorption in RH I. After RH I, the cold reheat steam is mixed with RH I outlet steam before it is taken to RH II for further heating.

The steam flow through RH I is controlled by means of a flow control valve in the bypass line which controls the final reheat outlet steam temperature. The RH II outlet steam temperature is the set point for the flow control valve in the bypass line. If the final RH steam temperature exceeds the set value, the flow through RH I will be reduced, i.e. the flow bypassing RH I will be increased. Below the control load, the flow control valve is programmed to be in the minimum position.

A pressure control valve is provided just before the RH I inlet header, to facilitate the operation of the flow control valve under various boiler load conditions. The pressure differential available for the flow control valve is the sum of the pressure drop in RH I and the drop across the pressure control valve for various load conditions. Refer to Figure 7 for a schematic of the above description.

CURRENT STATUS

Pyropower reached an agreement with Turow Power Station to design, supply and erect two, 230 MW CFB boilers and received a Memorandum of Understanding on July 3, 1992.

At the end of July, Pyropower Corporation reached an agreement to form a consortium to undertake the total rehabilitation project. On October 15, 1992 the consortium was awarded a Letter of Intent (LOI) by Turow Power Station for the project.

With the current schedule it is predicted that financing and power sales contracts can be closed by the end of June 1993. In order to support these efforts and maintain the schedule,

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a pre-engineering and plant inspection package, called the Technical Evaluation Package (TEP), is underway. This activity will be to investigate the existing plant equipment, conditions and infrastructure with an emphasis on developing information necessary to support financing.

CONCLUSION

The European Community and other western nations have focused on Eastern Europe as a significant world environmental problem, particularly the "Black Triangle" area where Turow Power Station is and many other power stations are located. To meet European Community environmental standards, Turow Power Station is replacing the old pulverized coal boilers with modern clean coal Pyroflow circulating fluidized bed boilers.

Revitalization of Eastern Europe's aging power stations is a key priority as Poland enters a market economy and aims at becoming a member of the European Community countries.

The Polish government strongly supports the Turow project as the most important environment energy project in Poland. It is also viewed as a valuable economic project. Power export to western Europe from Turow Power Station will return much needed foreign capital. On December 8, 1992 a resolution was passed in the Polish Parliament supporting the Turow rehabilitation project. With this resolution, a document was signed by the Minister for the Environment, the Minister for Industry and Turow Power Station affirming government commitment to the project.

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From: Project proposal

problems in the immediate project vicinity. Sufficient prevention of significant deterioration (PSD) increment is available for both SO2 and NOx which will allow for approval of the air permit. Since the VOC emissions from the facility will be greater than 50 TPY, some VOC offsets will be required to comply with the ozone non-attainment.

Based on recent PSD air quality permits issued by PA Department of Environmental Resources (DER) Bureau of Air Quality for coal fired projects, the following minimum technical criteria are anticipated for the YCEP Cogen facility:

- Required SO2 reduction will be 92% or greater. This level of sulfur capture can be achieved through addition of sorbent material to the ACFB.
- Required NOx reduction will be 50% or greater. This level of NOx abatement can be achieved through use of selective non-catalytic reduction with ammonia.
- Particulate emissions must not exceed 0.015 lb/MM BTU. Baghouse technologies will meet this requirement.
- The facility will be equipped with a continuous emissions monitoring system (CEMS) to monitor opacity, SO2, NOx, CO2, or O2, and flue gas flow rate.

Solid Waste Management

The combustion of coal in the ACFB will result in byproduct ash generation. The fly and bed ash byproduct materials are dry and inert, consisting of a heterogeneous mixture of coal ash, calcium sulfate and calcium oxide. During full operation, a significant quantity of ash byproduct will be generated. Pilot plant tests are currently being conducted to quantify expected volumes of ash byproduct requiring disposal. Ash byproduct will be temporarily stored on-site in enclosed silos having 2000 tons storage capacity, then transferred into enclosed 20-ton trucks for transport to a location for beneficial reuse. Because of the ACFB ash byproduct's high lime content, its concentrations of silicon, aluminum, and iron, and its pozzolonic properties, beneficial uses for the material can be found; these include sludge stabilization agents, agricultural soil additives, and road bed aggregate. Air Products has investigated and found viable ash byproduct uses for the ash produced at two existing facilities which Air Products owns and operates.

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From: CAC Report - West Manchester Twp.

September 3, 1992

TO: CAC MEMBERS

FROM: Regis Lageman

This is a preliminary draft of the final report of the Environmental Subcommittee we have tried to include all facts we have found thus far in our investigation. As you will note there are still several unanswered questions.

What follows is a chronological review of the information we have received. We have include copies of tables and articles where appropriate.

Review of Weston Report W.O.:0815-02-01

Table 1-1 Is Attachment # 1

Note that the VOC number (6.0 lbs/hr) is given as 22 lbs/hr in later data submissions.

Table 1-2 Attachment 2

Table 1-3 Attachment #3

Table 1-6 Attachment #4

Trace elements identified. Mercury stands out as numerically significant.

Other items of note are Asbestos and Sulfuric acid mist no projected emissions are given because no methods for measuring exist. This deserves further investigation.

We have received information from Tallahassee suggesting as little as 64 pounds per year can cause significant environmental impact, we are not sure of the authenticity of this. It deserves further review.

May 7, 1992 we submitted a list of questions.

SUMMARY

Asked for 100% analysis of stack emissions.

We were advised 100% emissions would be available from PSD permit, available late June. As of 8/31 the PSD permit is now expected in September.

YCEP advised that air pollution from 30 trucks would be negligible, however they committed to further reducing this by the use of some dolomite from the J. E. Baker facility.

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ATTACHMENT #1 WESTEN

Document 3B

TABLE 1-1

EMISSION PARAMETERS FOR THE PROPOSED
YORK COUNTY ENERGY PARTNERS PROJECT

PARAMETER	VALUE		
Stack Height	350 ft	106.7 m	
Stack Temperature	300 °F	422 °K	
Exit Velocity	3000 fpm	15.2 mps	
Stack Exit Diameter	15 ft	4.6 m	
Stack Base Elevation	460 ft amsl	140 m amsl	
UTM Coordinates:	Zone: 18		
Easting (km)	344.10		
Northing (km)	4,442.125		
Emission Rate[a]			Annual
SO_2	525 lb/hr	66.2 g/sec	4,599,000
NO_x	315 lb/hr	39.7 g/sec	2,759,400
TSP/PM-10	63 lb/hr	7.9 g/sec	551,880
CO	420 lb/hr	52.9 g/sec	3,679,200
Hydrocarbons (HC)	42 lb/hr	5.3 g/sec	367,920
Volatile Organics (VOC)	6.0 lb/hr	0.8 g/sec	52560

Reference: Air Products (1991) Request for Proposals.

Note also
VOC = 22 lbs/hr
in other data
submissions

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TODD PLATTS
State Representative
196th District

Dick,

Thanks for taking these over to enter into the record

Todd

"Putting People First"
Paid for by the PEOPLE FOR PLATTS Committee
Margaret Chandler and Linda Tate,
Co-Chairpersons • 846-6768

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YORK COUNTY ENERGY PARTNERS, L.P.

WASTEWATER REUSE FEASIBILITY STUDY

MAY 1994

Prepared By:
Karen S. Winegardner
Environmental Engineer

Air Products and Chemicals, Inc
7201 Hamilton Boulevard
Allentown, PA 18195-1501

W3246WCB

Approved for release
August, 1994

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YORK COUNTY ENERGY PARTNERS, L.P.

WASTEWATER REUSE FEASIBILITY STUDY

MAY 1994

Prepared By:
Karen S. Winegardner
Environmental Engineer

Air Products and Chemicals, Inc.
7201 Hamilton Boulevard
Allentown, PA 18195-1501

W3246WCB

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Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, West Virginia 28507-0880

December 8, 1994

York County Library
118 Pleasant Acres Road
York, PA 17402
Attn: Joy Hamsher

Dear Ms. Hamsher:

Enclosed please find a copy of the following item pertaining to the Proposed York County Energy Partners Cogeneration Project. Please place these documents with other project materials that have been previously sent to this reading room.

Wastewater Reuse Feasibility Study, prepared by Air Products and Chemicals, Inc. (1994).

This information should be maintained for public access through finalization of the subject EIS and rendering of the Record of Decision, scheduled for the Spring of 1995.

Should you have any questions, or need additional information, please contact Dr. Suellen A. Van Ooteghem, Environmental Project Manager, at the following address and phone number:

U.S. Department of Energy
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26505
304-284-5443

Sincerely,

Suellen A. Van Ooteghem

Dr. Suellen A. Van Ooteghem
Environmental Project Manager

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Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, West Virginia 26507-0880

November 30, 1994

Ms. Doris Miller
Glatfelter Memorial Library
101 Glenview Road
Spring Grove, PA 17362

Dear Ms. Miller:

Enclosed please find a copy of the following item pertaining to the Proposed York County Energy Partners Cogeneration Project. Please place this document with other project materials that have been previously sent to this reading room.

York County Energy Partners, L.P. Wastewater Reuse Feasibility Study, May 1994

This information should be maintained for public access through finalization of the subject EIS and rendering of the Record of Decision, scheduled for the Spring of 1995.

Should you have any questions, or need additional information, please contact Dr. Suellen A. Van Ooteghem, Environmental Project Manager, at the following address and phone number:

U.S. Department of Energy
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26505
304-284-5443

Sincerely,

Suellen A. Van Ooteghem

Dr. Suellen A. Van Ooteghem
Environmental Project Manager

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Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, West Virginia 26507-0880

December 8, 1994

Ms. Susan Hedge
York County Law Library
York County Courthouse
28 E. Market Street
York, PA 17401

Dear Ms. Hedge:

Enclosed please find a copy of the following item pertaining to the Proposed York County Energy Partners Cogeneration Project. Please place these documents with other project materials that have been previously sent to this reading room.

- Wastewater Reuse Feasibility Study, prepared by Air Products and Chemicals, Inc. (1994).

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U.S. Department of Energy
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26505
304-285-5443

Sincerely,

Dr. Suellen A. Van Ooteghem
Environmental Project Manager

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Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, West Virginia 26507-0880

RECEIVED DEC 0 1 1994

November 30, 1994

Ms. Susan Hedge
York County Law Library
York County Courthouse
28 E. Market Street
York, PA 17401

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This information should be maintained for public access through finalization of the subject EIS and rendering of the Record of Decision, scheduled for the Spring of 1995.

Should you have any questions, or need additional information, please contact Dr. Suellen A. Van Ooteghem, Environmental Project Manager, at the following address and phone number:

U.S. Department of Energy
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26505
304-285-5443

...erely,

Dr. Suellen A. Van Ooteghem
Environmental Project Manager

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York County Energy Partners, L.P.

Allentown, Pennsylvania

ENSR Consulting and Engineering

Document Number 0040-007-310

YORK
York County Energy Partners

AIR PRODUCTS
Company

Draft Environmental Information Volume for the Proposed York County Energy Partners Cogeneration Facility

August 1992

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RECEIVED DEC 0 1 1994

REVISED

FINAL

AIR QUALITY MODELING ANALYSIS OF GETTYSBURG NATIONAL MILITARY PARK

Prepared for:

YORK COUNTY ENERGY PARTNERS
L.P. Cogeneration Facility
North Codorus, York County, Pennsylvania

Prepared by:

ROY F. WESTON, INC.
West Chester, Pennsylvania 19380-1499

August 1994

Work Order No. 00815-009-002

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Health Sciences Center
West Virginia University
School of Medicine
Institute of Occupational and Environmental Health
3313 Health Sciences Center South
Morgantown, WV 26506
304 293-3583

RECEIVED DEC 0 1 1995

HEALTH ASSESSMENT

FOR THE

YORK COUNTY ENERGY PARTNERS PROPOSED COGENERATION FACILITY

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RECEIVED NOV 2 8 1994

HUMAN HEALTH RISK ASSESSMENT FOR YORK COUNTY ENERGY PARTNERS, L.P. COGENERATION FACILITY NORTH CODORUS TOWNSHIP YORK COUNTY, PENNSYLVANIA

Prepared for

York County Energy Partners
North Codorus Township
York County, PA

Prepared by

ENVIRON Corporation
Arlington, Virginia

July 1994

ENVIRON

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RECEIVED NOV 2 8 1994

REVISED
RADIONUCLIDE EMISSIONS REPORT

Prepared For:

YORK COUNTY ENERGY PARTNERS, L.P.
North Codorus Township, PA

Prepared By:

ROY F. WESTON, INC.
1 Weston Way,
West Chester, PA 19380-1499

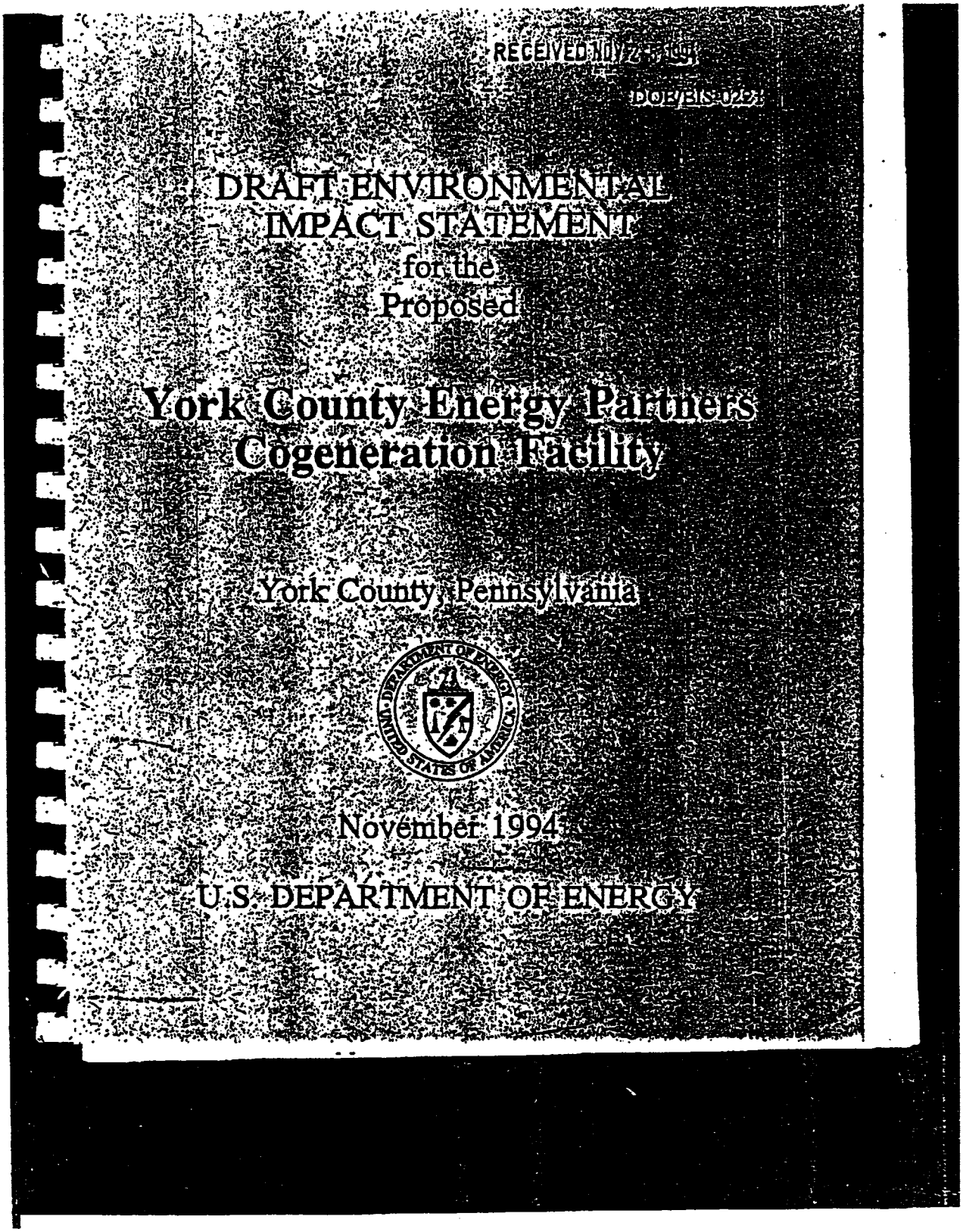
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Work Order No. 00815-009-002

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8/3/94

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RECEIVED NOV 23 1994
DOE/BIS-0223
DRAFT ENVIRONMENTAL IMPACT STATEMENT
for the
Proposed
York County Energy Partners Cogeneration Facility
York County, Pennsylvania
November 1994
U.S. DEPARTMENT OF ENERGY

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VOLUME IV(D): Correspondence with the Assistant Secretary for Fossil Energy

VOLUME IV(D): CORRESPONDENCE WITH THE ASSISTANT SECRETARY FOR FOSSIL ENERGY

This Section of Volume IV contains reproductions of written correspondence from citizens and public officials with the Office of the Assistant Secretary for Fossil Energy, DOE. These items were received by the Assistant Secretary prior to the release of the DEIS and the start of the comment period (November 25, 1994). While this correspondence does not offer specific comment on the DEIS, it is included here for the record. In addition, the Secretary for Fossil Energy directly responded to many of the inquiries through personal letters or indirectly through correspondence provided by the Morgantown Energy Technology Center.

For correspondence, the convention is to assign the comment a prefix of "C", followed by the initials of the commenter's name (e.g., JKL), followed by the commenter's submittal date in month/day (e.g., 11/21), followed by an alphabetical suffix denoting the specific comment's order of sequence in the entire written submittal. For instance, the designation C-JKL-11/21b denotes the second (i.e., "b") specific comment contained in correspondence submitted on November 21st by an author whose initials are JKL.

In responses to comments, three acronyms referring to environmental impact statements are used. "DEIS" refers specifically to the Draft Environmental Impact Statement published in November 1994; "FEIS" refers to this Final Environmental Impact Statement; "EIS" refers to both the DEIS and the FEIS, in general. Thus, when a reference to the DEIS, FEIS, or EIS is made in a response to a comment, that information can be found only in the DEIS, only in the FEIS, or in both documents, respectively.

DOE addressed the pertinent and relevant comments contained in the written correspondence. The Department appreciates receiving all comments, and those not specifically marked for response are recorded here as being received, considered, and noted for the record by DOE.

Margaret A. Seville
3400 Eastern Blvd, D-10
York, PA 17402

November 25, 1994

Ms. Patricia Godley
Assistant Secy for Fossil Fuels
Dept. of Energy
Washington, DC 20585

Dear Ms. Godley,

Many of us in York County have received the Draft Environmental Impact Statement on the YCEP Cogen facility. I understand that the DOE in Morgantown has set the date for the public hearing to review this statement for Dec. 14, 15, + 16. As secretary for a group who is in charge of making the public aware of each development in the Cogen permitting process, I now only have →

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3 weeks (in the holiday season) to digest the 2" thick Statement and its 18 source documents, notify York Countians of the contents of the statement, and notify them of the hearing date so they can plan to attend. This is not enough time! Could you please tell the people in Morgantown (I have not had much luck with them) to extend the period to something more manageable, that is after the holidays.

C-MAS-11/25a

Furthermore, 5 of the necessary source documents were just submitted by YCEP between Nov. 8 and Nov. 11, and the EIS was dated Nov. 17. When did the DOE have a

C-MAS-11/25b

C-MAS-11/25a

Response: Please see the responses to Comments D-31/22 and D-32/13.

KEYWORDS:

Schedule

C-MAS-11/25b

Response: Please see the responses to Comments D-59/22, D-60/2, and D-60/13.

KEYWORDS:
Document review
HRI
Reading rooms

-3-

Chance to review these source documents? There are still eleven source documents that are not in the 3 local libraries for anyone to review. Please delay the public hearing until after these documents have been made available (as promised) and we have had time to read them (perhaps early Spring?). (continued)

I understand from an article in our newspaper (copy enclosed) that the EPA feels the Clean Coal Technology Program should be considering alternative technologies (cleaner & more efficient - we have information on viable alternatives) However, C-MAS-11/25c

C-MAS-11/25c ***Response:*** Please see the responses to Comments D-37/16 and W-PHK-1/31a.

KEYWORDS:
Alternative technologies

Morgantown is not considering these better technologies. I am appealing to you to consider some of the alternatives. It's bad enough that your County has to support power plants for 7 times the power that it uses; we deserve to at least have the latest + best!

(continued)

Please look into this. It feels as though this plant is being forced on us without due consideration.

Thank you,
Margaret A. Seville

cc: Peter Kostmayer, EPA
Bill Goodling, House of Representatives

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RD#1 Box 3238
Spring Grove, PA 17362
November 22, 1994

Ms. Patricia Irby Godley
Asst. Sec. for Fossil Fuels
Dept. of Energy
Washington, DC 20585

Dear Ms Godley,

We are in receipt (Nov 21) of an Environmental Impact Statement from the Dept of Energy Morgantown Office. We are told there will be three (3) nights of public comment in York, PA on Dec. 14, 15 + 16 1994 regarding the cogeneration project proposed by Air Products/York Co. Energy Partners/P.H. Glatfelter Paper Mill in York Co. PA.

Since there is so little time to review and comment on the nearly 3"-thick document plus reviewing 20+ additional documents pertaining to this project, we are asking for a 60-month review period.

This statement has been en

C-JSC-11/22a

C-JSC-11/22b

Reservations 1-800-HILTONS

C-JSC-11/22a

KEYWORDS:
NEPA

Response: York County Energy Partners, L.P. (YCEP) is the Industrial Participant in the proposed cogeneration project under DOE's Clean Coal Technology Demonstration Program. YCEP is a wholly-owned project company of Air Products and Chemicals, Inc. The P. H. Glatfelter Company is not a participant in this proposed project, and has not entered into any agreement with DOE. The P. H. Glatfelter Company has signed a Letter of Agreement with YCEP to purchase steam in the event the proposed project is constructed by YCEP. The DOE is responsible for preparation of the EIS for the proposed project. Please also see Section 1.4 of the EIS for additional information on NEPA and the preparation of the EIS.

C-JSC-11/22b

KEYWORDS:
Schedule

Response: Please see the responses to Comments D-31/22 and D-32/13.

preparation by DOE officials for a
past 15 months (the 2nd postponed
session was Oct. 5 1993 in York)
Why are we as private citizens,
forced to digest this in just a
21-day period? It is unfair, unjust,
and just plain ridiculous, especially
during the comment period when
the citizens' minds are on the
Christmas season and definitely
not on the cogeneration plant.
We are imploring you to give
us this extension, so that we
may thoughtfully and intelligently
review this horrendous E.I.S.
Thank you for this consideration.
Yours truly
Jean L. Clark

cc William Goodling, PA Rep.

(continued)

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Katy Dolan
2252 Dixie Drive
York, PA 17402

Nov. 21, 1994

Patricia Godley
Asst Secr. for
Fossil Energy
U.S. Department of Energy
Washington D.C. 20585

Dear Ms. Godley,

A friend of mine just received DOE/EIS-0221 "Draft Environmental Impact Statement for the Proposed York County Energy Partners Cogeneration Facility", dated Nov. 1994 from U.S. Department of Energy. Even though I attended the same scoping meeting that she did, I did not receive the documents. This is a book as big as a phone book and we have until Dec 14 to read it, absorb it and respond to it, all during the holiday season. C-KD-11/21a

Is this reasonable? No!! I respectfully request more time to prepare my statement to respond to your findings - at least 6-9 months. C-KD-11/21b

There are also 18 source documents that are supposed to open for public viewing. We are unable to find 12 of these. C-KD-11/21c

- over -

C-KD-11/21a

KEYWORDS:
Distribution list

Response: DOE's distribution list indicated that a DEIS was sent to the commenter. However, the DEIS was returned by the postal service and marked "addressee unknown." Apparently, the house number for the commenter was incorrectly recorded in DOE's distribution list. This error has been corrected in the distribution list for the FEIS.

C-KD-11/21b

KEYWORDS:
Schedule

Response: Please see the responses to Comments D-31/22 and D-32/13.

C-KD-11/21c

KEYWORDS:
Reading room

Response: Please see the responses to Comments D-59/22 and D-60/2.

I would also like to address the question of this co-gen plants being built in the first place. Since this is supposed to be "experimental technology" and the congressional funding of $75 million spells that out, why don't you actually suggest a technology that has been tested and is much cleaner than this proposed plan. I have read that there is much cleaner and environmentally safer technology available. How about spending our tax dollars on alternate energy sources like wind or solar power, neither of which is polluting? C-KD-11/21d

This is your field and you are looking for us, the tax payers, please start looking out for our health and welfare. We don't need to produce more energy at the expense of our health and at the expense of devastating wildlife and flora. C-KD-11/21e

I look forward to your reply.

Sincerely,

Cathy Dolan

P.S. Our air and water is already over-polluted please don't do it!

C-KD-11/21d ***Response:*** Please see the responses to Comments D-39/13 and D-100/9.

KEYWORDS:
Alternative technologies

C-KD-11/21e ***Response:*** Please see the responses to Comments D-85/3 and D-129/6.

KEYWORDS:
Health effects

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Congress of the United States

House of Representatives

Washington, DC 20515-3819

November 23, 1994

The Honorable Hazel O'Leary
Secretary
Department of Energy
1000 Independence Avenue SW
Washington, D.C. 20585-0001

Dear Madam Secretary:

On November 18, 1994, the Department of Energy issued a draft Environmental Impact Statement (EIS) for the proposed York County Energy Partners Fluidized Bed Cogeneration Project to be located in North Codorus Township, York County, Pennsylvania. I have received complaints from several of my constituents regarding the scheduling of the public meetings and comment period.

As you are aware, the Department has scheduled public hearings specifically on the draft EIS for December 14, 15 and 16, 1994 in York. However, constituents have complained that this is not enough time to adequately study and comment on the several hundred page draft EIS. Further, constituents have complained that the 45 day comment period on the draft EIS is also inadequate. C-BG-11/23a

Constituents have stated that one of the primary reasons the schedule and comment period is inadequate is because approximately half of the documents and information supporting the draft EIS, which is supposed to be available in the project's depository libraries, is not present or available at the depositories. C-BG-11/23b

I appreciate your review and consideration of this information.

Sincerely,

Bill

BILL GOODLING
Member of Congress

WFG/pt
cc: Dr. Suellen A. Van Ooteghem

THIS STATIONERY PRINTED ON PAPER MADE OF RECYCLED FIBERS

C-BG-11/23a ***Response:*** Please see the responses to Comments D-31/22 and D-32/13.

KEYWORDS:
Schedule

C-BG-11/23b ***Response:*** Please see the responses to Comments D-59/22 and D-60/2.

KEYWORDS:
Reading rooms

SENT-BY:H/R Rm 49 East

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HARRISBURG

COMMITTEES

AGING AND YOUTH
EDUCATION
HOUSE LOCAL TAX REFORM CAUCUS
PA FIRE FIGHTERS LEGISLATIVE CAUCUS

November 23, 1994

Hazel O'Leary, Secretary
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, D.C. 20585

Dear Secretary O'Leary:

It is with great disappointment that I write concerning the Department of Energy's (DOE) recent actions concerning the proposed York County Energy Partners' (YCEP) Cogeneration Project in York County, Pennsylvania (DOE/EIS-0221). In specific, I was dismayed to learn that, in conjunction with the publication of the DOE's Draft Environmental Impact Statement (EIS) regarding this proposed project, the DOE has scheduled a series of public hearings on the Draft EIS for the week of December 12, just three weeks after the EIS's publication.

Given that the project sponsor, YCEP, and the DOE have spent more than a full year gathering information, reviewing data, and drafting the EIS, it is clearly and unquestionably contrary to the basic principles of fairness and good government to only provide three weeks for the general public to review and adequately prepare to comment on the hundreds of pages of the Draft EIS, as well as on the hundreds of pages of "major documents" referenced in the Draft Statement. Please note that the three week period provided the public encompasses our Nation's Thanksgiving Day holiday. C-TRP-11/23a

While there are many diverse opinions concerning the merits of YCEP's proposed project, I would certainly hope that all parties involved in this issue share a common commitment to ensuring that the opportunity for public participation in the environmental review of this proposal is not provided in such a manner as to only comply with the letter of the law as spelled out in the National Environmental Policy Act, but is instead provided in a manner that truly fulfills the worthy goal of informed public comment and participation. Unfortunately, although the scheduling of the public hearings for the week of December 12 may comply with the letter of the law, I wholeheartedly believe that such a scheduling decision does not indicate a sincere interest on the part of DOE to receive informed public comment on the Draft EIS. C-TRP-11/23b

C-TRP-11/23a

Response: Please see the responses to Comments D-31/22 and D-32/13.

KEYWORDS:
Schedule

C-TRP-11/23b

Response: Please see the responses to Comments D-31/22, D-32/13, D-59/15, D-84/11, and D-145/13.

KEYWORDS:
Conduct
NEPA

By way of this letter, I respectfully request that you direct the appropriate members of your department to reschedule the planned public hearings for no sooner than February 1, 1995. Given the magnitude of this proposed project and the volumes of information to be reviewed and commented on as part of the EIS process, I believe that such a change is greatly warranted. My request for such action is not intended to inappropriately delay or prolong a final DOE decision regarding the merits of YCEP's proposed cogeneration project. Rather, my sincere intent is to properly ensure that the public comment portion of the Draft EIS process is conducted in as fair and reasonable a manner as possible. I sincerely hope that, after reviewing the merits of my concerns, you will share my dismay at the timing of the scheduled public hearings and initiate a rescheduling of said hearings for a more appropriate date.

(continued)

In advance, thank you for your attention to this very important matter. Best wishes for a Happy Thanksgiving.

Sincerely,

Todd R. Platts

TODD R. PLATTS

TRP/lal

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VOLUME IV(E): Appendices

Appendix A: Reading Room Locations

APPENDIX A: READING ROOM LOCATIONS

United States Department of Energy
Freedom of Information Reading Room
Forrestal Building
1000 Independence Ave., SW
Washington, DC 20585

Mr. Matt Marsteller - LIBRARY
United States Department of Energy
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26505

Glatfelter Memorial Library
101 Glenview Road
Spring Grove, PA 17362

York County Library
118 Pleasant Acres Road
York, PA 17402

York County Law Library
York County Courthouse
28 E. Market Street
York, PA 17401

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Appendix B: Environmental Impact Assessment Methodology

APPENDIX B: ENVIRONMENTAL IMPACT ASSESSMENT METHODOLOGY

This Environmental Impact Assessment Methodology presents criteria ***potentially considered and*** used during the preparation of the Environmental Consequences chapter (Chapter 4) of the EIS. The methodology accounts for the various impacts that affect the biological, physical, and sociocultural environment. Impacts can be classified into five types: direct, indirect, short-term, long-term, and cumulative. These types of impacts are interdependent; there can be long-term direct impacts, short-term cumulative impacts, etc. It is important to identify the types of impacts so that reviewers and decision makers are able to make sound, reasoned decisions.

Direct impacts have immediate results. An example would be the loss of habitat caused by a construction project. Indirect impacts are the consequence of direct impacts and are not a direct response to the action. Indirect impacts are those impacts that can be viewed as secondary consequences of the action. In the example of habitat loss from a construction project, the indirect impacts may be a reduction in wildlife populations. Indirect impacts may be difficult to identify because their relationship to direct impacts may not be easily established, obvious, or may appear only in the distant future, or not at all. Often, there is little distinction between indirect impacts, particularly in the long-term, and cumulative impacts. Cumulative impacts are a summation of the impacts related to the action being evaluated and concurrent actions that are similar to or in close proximity to the action. Cumulative impacts often do not become apparent until after the action has been taken.

Short-term impacts occur for a relatively short time and then abate or attenuate to levels that are of little or no concern. An example of a short-term impact would be erosion from a construction site, which will cease entirely after construction, or be reduced to minimal levels by appropriate mitigation. Long-term impacts occur for a relatively long time or manifest at some future time. To ensure that the full impact of an action is evaluated, each impact type is considered.

Some factors used to determine the type and significance of impacts are *geographic extent, duration and frequency, likelihood,* and *magnitude* of the impact. The *geographic extent* of an impact considers how widespread the impact might be. The *duration and frequency* of an impact refers to whether the impact is a one-time event, intermittent, or chronic. The *likelihood* of an impact is simply whether or not it is reasonable to expect that the impact is likely to occur.

The *magnitude* of an impact is an intensity factor that is also a reflection/summation of the other three factors. If the magnitude of an impact is large, the other factors become less important in determining whether or not the impact is significant. Additionally, if the magnitude is not large or high, there may not be any significance to the impact's occurrence regardless of how widespread it is, or how often it occurs.

Specific issues and various indicators used to measure potential impacts are identified for each section of the Environmental Consequences chapter. Issues were analyzed to determine if any impact could be expected and indicators were assessed to evaluate the magnitude of the impact.

SETTING

Issues

Impact of design composition (including visual appearance; site surroundings; architectural techniques; view of unsightly areas; stack height; loading/unloading facilities; storage facilities; utility interconnection routes)

Impact on environmental amenities (including land form alterations; unique natural features)

Indicators for Measuring Impacts

Results of visual quality analysis

AIR QUALITY

Issues

Impacts from the generation and dispersion of contaminants (including synergistic/additive effects; downwind land uses), such as for:

- coal dust;
- particulate matter (PM_{10});
- carbon dioxide (CO_2);
- sulfur dioxide (SO_2);
- carbon monoxide (CO);
- heavy metals (e.g., mercury, lead, zinc, cadmium, chromium, nickel, and arsenic);
- oxides of nitrogen (NO_x);
- organics;
- volatile organic compounds (VOC);
- toxic gases; and
- radioactive substances

Contribution to acid rain levels

Contribution to global warming ("greenhouse effect")

Contribution to increased ozone levels

Impacts from fog episodes, if any

Contribution to air inversions (if any)

Impacts of decreased visibility

Impact from emissions of radioactive, pathogenic, hazardous, or toxic pollutants, including areas affected and long-term considerations

Impact of fugitive dust emissions

Impact of air emissions on agricultural areas

Impacts from the use of radon and asbestos, if any

Impact of fugitive air emissions from facility vehicle and equipment exhaust during construction, and from increased traffic to the facility during operation

Impact of fugitive air emissions on Class I (Shenandoah National Park) and Class II (Gettysburg National Military Park) areas; including the impact on preservation of bronze and marble statues in the Gettysburg and Philadelphia areas

Characteristics of emission offsets

Disposition of airborne precipitates on ion exchange from wastewater processes

Adequacy of pollution prevention procedures

Indicators for Measuring Impacts

Compliance with Clean Air Act

Compliance with acid rain provisions of Clean Air Act amendments

Compliance with National Ambient Air Quality Standards

Ability to obtain Prevention of Significant Deterioration ***(PSD)*** permit

Compliance with PSD visibility requirements

Compliance with PSD increments of emissions associated with fuel combustion

Ability to acquire the necessary sulfur dioxide allowances

Compliance with New Source Performance Standards

Compliance with National Emission Standards for Hazardous Air Pollutants

Compliance with Pennsylvania Air Quality Pollutants

Ability to obtain Permits to Operate

Impact on the status of attainment and non-attainment areas

Conformity with State Implementation Plan

Effectiveness, quantity, and types of emission control devices to be utilized

GEOLOGY and SOILS

Issues

Impact on soil quality

Effect of construction and operation on soil erosion

Suitability of soil for supporting new facilities and waste storage, if needed

Indicators for Measuring Impacts

Degree of degradation of soil quality

Impact on prime and unique farmland, if any

WATER RESOURCES AND WATER QUALITY

Issues

Impact on the quantity of water available during normal and drought conditions

Impact on water quality (e.g., color, temperature, odor, suspended solids, dioxin, dissolved solids)

Impact on surface water and floodplains, such as impediments to natural drainage pattern and alterations to stream drainage flow; amount of sediment influx; erosion

Impact of water treatment (such as direct discharges into stream)

Impact of sludge produced from cooling water pretreatment, if needed

Effect on downstream users

Potential for flooding, and consequences of a flood, if any

Impacts on recreational uses of water

Impact of stormwater drainage (such as increased/decreased water flow or runoff; discharge into wastewater facility)

Impact on water flow (such as altering characteristics; reducing water supply; impacting downstream supply; affecting aquatic recreational activities)

Impact from airborne contaminants

Impact on groundwater (such as water table fluctuations, nearby wells)

Impact on the use of Codorus Creek as a fishery for Class A wild brown trout (downstream of Lake Marburg)

Impact on presently contaminated streams with already high pollution levels

Overall impact on the entire watershed

Impact of wastewater recycling program on the community

Adequacy of pollution prevention procedures

Indicators for Measuring Impacts

Compliance with Executive Order 11988 on floodplains

Compliance with Fish and Wildlife Coordination Act

Compliance with Clean Water Act

Compliance with Safe Drinking Water Act Maximum Contaminant Levels

Compliance with Resource Conservation and Recovery Act

Ability to comply with National Pollutant Discharge Elimination System (NPDES) permit

Ability to comply, if needed, with effluent guidelines and standards for steam electric power generating point sources (40 CFR Part 423)

Ramifications of the increased consumption of water

Adequacy of construction and operational procedures and facility/process characteristics to prevent the migration of potential contaminants to groundwater

Ability to obtain a permit, if necessary, to construct and develop in a wetland

BIOLOGICAL RESOURCES AND BIODIVERSITY

Issues

Impact on aquatic ecosystems (such as the results of the physical evaluations, including flow, suspended solids and sedimentation, pools, riffles, and substrate composition, channel characteristics, temperature, and riparian evaluations; results of chemical evaluations, including water quality, hardness, alkalinity, pH, and salinity; and results of biological evaluations, including habitat suitability, diversity, and species analysis)

Impact on terrestrial ecosystems (such as nutrient cycling; habitat impact; wildlife type/amount; loss of breeding or nesting areas; vegetation loss; erosion and sedimentation; eutrophication; acidification; contaminant toxicity; noise and visual disturbance)

Impacts on threatened and endangered species (such as habitat loss; species loss/displacement)

Impacts from sewage treatment effluent relative to stream flow

Impacts of noise on wildlife

Impacts on wetlands (such as dredge or fill material discharge; hydrology changes)

Impacts to biodiversity

Indicators for Measuring Impacts

Compliance with Endangered Species Act of 1973

Compliance with Migratory Bird Treaty Act

Compliance with Executive Order 11990 on wetlands

Compliance with Fish and Wildlife Coordination Act

Compliance with Section 404 of Clean Water Act

Acceptance by the U.S. Fish and Wildlife Service that proposed project will not significantly impact, in any way, listed plant or animal species

Degree of change, if any, to ecosystem diversity (biodiversity)

HUMAN HEALTH AND SAFETY

Issues

Effects from the composition and quantity of solid waste and hazardous and toxic materials generated (such as toxicology, teratogenicity/reproductive effects, carcinogenicity and mutagenicity, epidemiological studies, clinical studies)

Effects of proposed facility emissions on "sensitive" populations, such as nearby schools, the elderly, those with respiratory difficulties, etc.

Impact from disposal procedures

Impact from transportation

Adequacy of safety and handling procedures (e.g., adequate reduction in injury risk, operational hazards, accidental release, disease potential)

Impacts to worker health and safety

Impacts to public health and safety

Impacts from bioaccumulation on the food chain

Impact of emissions of heavy metals and radiation to the population, land, and food chain

Impact of electromagnetic fields (EMFs) to the environment and community health

Adequacy of pollution prevention procedures

Indicators for Measuring Impacts

Compliance with Resource Conservation and Recovery Act regulations

Compliance with Toxic Substances Control Act regulations

Compliance with hazardous materials transportation regulations

Compliance with York County management of solid and hazardous waste

Compliance with Pennsylvania state regulatory requirements for storage, handling and transportation of hazardous waste

Compliance with Comprehensive Environmental Response, Compensation, and Liability Act regulations

Adequacy of pollution prevention measures

Adequacy of corporate plans:

- Spill Prevention, Control and Countermeasures Plan;
- Hazardous Waste Contingency Plan;
- Facility Emergency Evacuation and Fire Fighting Plan; and
- Chemical Emergency Response Plan

Compliance with Emergency Planning and Communication Right-to-Know Act

Adequacy of safeguards to ensure environmental safety

Compliance with Occupational Safety and Health Act of 1970

Compliance with Pennsylvania's Occupational Safety and Health standards

Compliance with National Institute of Occupational Safety and Health guidelines

Compliance with the Pennsylvania Department of Environmental Resources (PADER) for the disposal of water treatment sludge and ash byproducts

Results of epidemiological study of Spring Grove area, ***if available***

NOISE

Issues

Impact of noise (such as construction/operation noise; impacts on nearby humans; noise duration; adequacy of preventive measures; vibration)

Impact of noise levels from increased traffic on Route 116 and Route 30

Indicators for Measuring Impacts

Compliance with Noise Control Act of 1972

Compliance with Noise Pollution and Abatement Act of 1970

Compliance with local noise ordinances

TRANSPORTATION AND TRAFFIC

Issues

Impacts from increased traffic during construction and operation of the facility

Impacts on transportation and infrastructure (such as accommodation of road traffic; adequate bridges and roads; adequate parking and loading/unloading facilities; disruption of civilian road network; traffic volume; changes to rail, air, water transportation; use in environmentally sensitive areas)

Impact on local emergency response vehicles due to increased traffic

Impact to traffic congestion on Route 116 and Route 20

Impact from hauling coal, ash, and dust, and the possibility of falling materials on the roads

Impact of visibility along roads due to increase in fog

Indicators for Measuring Impacts

Compliance with local ordinances for transporting materials along certain routes

Compliance with local transportation laws and regulations

Results of visibility analysis

Results of fog modeling

LAND USE

Issues

Impacts on existing land use (such as mineral resources; commercial activities; future development; agriculture; sanitary landfills)

Impacts on land use trends and controls (such as introduction of land use changes; future land options; access to environmental resources — historical resources, etc; land uses compatibility; zoning)

Indicators for Measuring Impacts

Compatibility of proposed facility with existing and zoned land uses

Compliance with local zoning requirements

Compliance with subdivision ordinance(s)

POLLUTION PREVENTION

Issues

Impacts on air, water, noise

Impacts on quantity, location, and safety of the disposal of coal/ash residue

Indicators for Measuring Impacts

Adequacy of pollution prevention and waste minimization measures

CULTURAL RESOURCES

Issues

Impacts on historical resources (such as physical destruction, damage, or alteration; alteration of property's setting; introduction of visual, audible, or atmospheric elements; neglect of property; transfer, lease, or sale of property)

Impacts on archaeological resources

Indicators for Measuring Impacts

Compliance with Archaeological and Historic Preservation Act of 1974

Compliance with Archaeological Resources Protection Act of 1974

Compliance with National Historic Preservation Act of 1966

Compliance with Native American Graves Protection and Repatriation Act of 1990

Compliance with DOE Order 1230.2

SOCIOECONOMIC RESOURCES

Issues

Impacts on demographics (such as population, employment, housing)

Potential for direct and indirect employment opportunities

Impact on local and regional economic activity (such as employment, land and property values, income, local energy rates, regional/local economic activity)

Impacts on public services (such as educational services, recreation/cultural facilities, social services, police protection, fire protection)

Impact on tourism

Indicators for Measuring Impacts

Affect of possible additional workers on community housing availability, schools, emergency and medical services

Expected tax revenues to local government

Expected rate changes

Availability of employment opportunities

ENVIRONMENTAL JUSTICE

Issues

Impacts to minorities and low-income communities

Indicators for Measuring Impacts

Proximity to and extent of impact on minorities and low-income communities

CUMULATIVE IMPACTS

Issues

Impacts from past events or activities and from other reasonably foreseeable facilities, operations, or activities, and the contribution to these impacts

Indicators for Measuring Impacts

Degree of impact to society as a whole, the region, effected interests, and the locality (context)

Severity of impact as measured by degree to which public health or safety is affected, the uncertainty of associated risks, any controversy associated with the impacts, and the degree to which ecological resources are affected (intensity)

Appendix C: Potentially Sensitive Visual Receptors

APPENDIX C: POTENTIALLY SENSITIVE VISUAL RECEPTORS

POTENTIALLY SENSITIVE VISUAL RECEPTORS OF THE PROPOSED NORTH CODORUS TOWNSHIP SITE

Summary of Major Changes Since DEIS

This appendix has been updated to reflect the addition of two new potentially sensitive visuals receptors (Receptor 8, residential area near Rockery Road and Receptor 9, residential area on Lehman Road).

Receptor 1 - Residence on Southern Perimeter of Site. Receptor 1 is a house located on a triangular parcel of land between Route 116 to the south and the property line of the proposed facility to the north. The existing view of the proposed site from this receptor is unobstructed (Figure C-1). The existing viewscape consists of the undeveloped site in the foreground to the north with the stacks and upper mill structure visible over a treeline in the background to the northeast, and the Roundwood Facility and conveyor to the northwest.

Receptor 2 - Lions Club Pavilion and Fishing Area on Kessler Pond. A Lions Club picnic pavilion and a public fishing area on Kessler Pond currently exist on a parcel of P. H. Glatfelter Company land on the southeast border of the proposed site. This location would be approximately 213.4 to 304.8 meters (700 to 1,000 feet) from the primary structural elements of the proposed facility. The existing view of the proposed site from this receptor is partially obstructed by a single row of medium height trees (Figure C-2). The backdrop includes the P. H. Glatfelter Company Roundwood Facility and conveyor. In addition, low, rolling hills are present in the distant background.

Receptor 3 - Location off Rockery Road Adjacent to P. H. Glatfelter Company Research Building. Receptor 3 consists of a small cluster of residences on elevated ground off of Rockery Road. This receptor is east of the P. H. Glatfelter Company Research Building and would be approximately 518.2 meters (1,700 feet) from the site of the proposed facility. The view to the west and northwest of this receptor is a medium distance line-of-sight view of the existing mill and Roundwood Facility. In the foreground to the north, the P. H. Glatfelter Company trailer parking area (across Route 116) would be visible. Mature deciduous and evergreen trees have been planted at these residences to screen the mill structures from visibility. A relatively lightly screened view from one of higher elevated residences is presented in Figure C-3. It is anticipated that the view to the north would be less screened during seasonal periods of minimal foliage (i.e., fall, winter, and early spring).

Receptor 4 - Residence on Hillside Lane. The nearest sensitive visual receptor to the west of the proposed facility site is a cluster of residences located along Hillside Lane. Hillside Lane parallels the south side of Route 116 at a slightly higher elevation. The easternmost residence, located at the end of the cul-de-sac, was designated as the receptor for the cluster of residences. The distance between this house and the primary structures of the proposed facility would be approximately 670.6 meters (2,200 feet). From this site, there is a clearly visible unobstructed view of the proposed facility with the Roundwood Facility and the primary mill structures (Figure C-4). The viewing distance of the proposed site is intermediate between the two primary clusters of P. H. Glatfelter Company structures. The

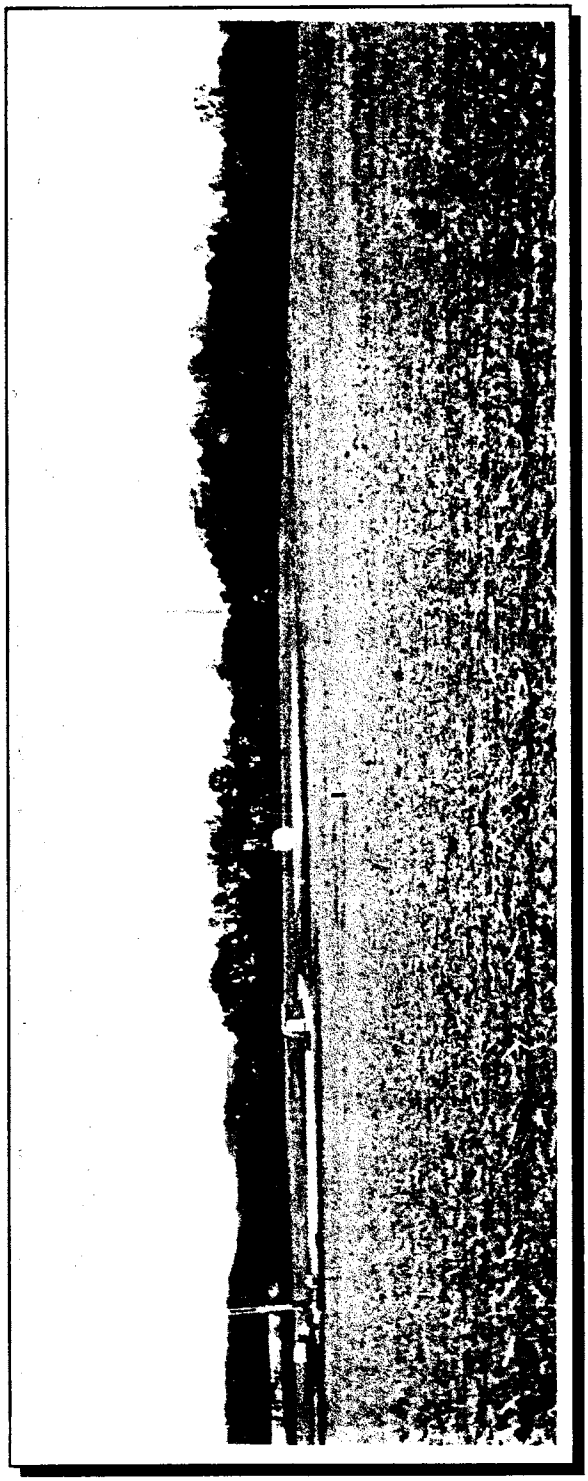


Figure C-1. View of proposed facility site from Receptor 1.



Figure C-2. View of proposed facility site from Receptor 2.

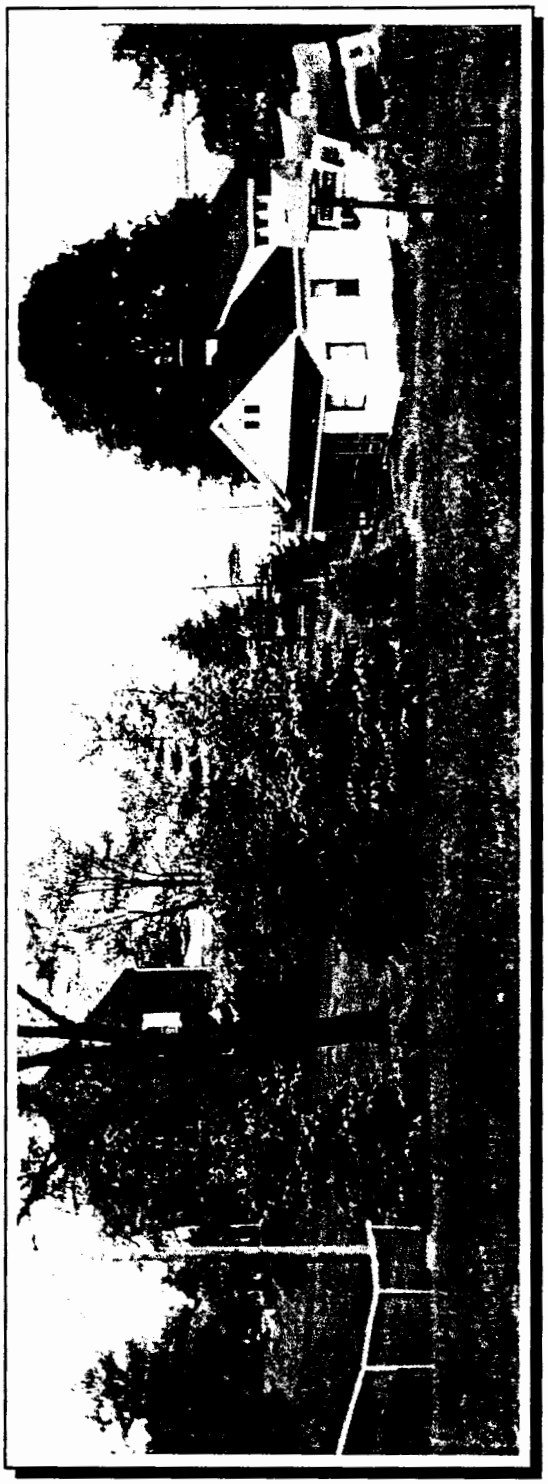


Figure C-3. View of proposed facility site from Receptor 3.

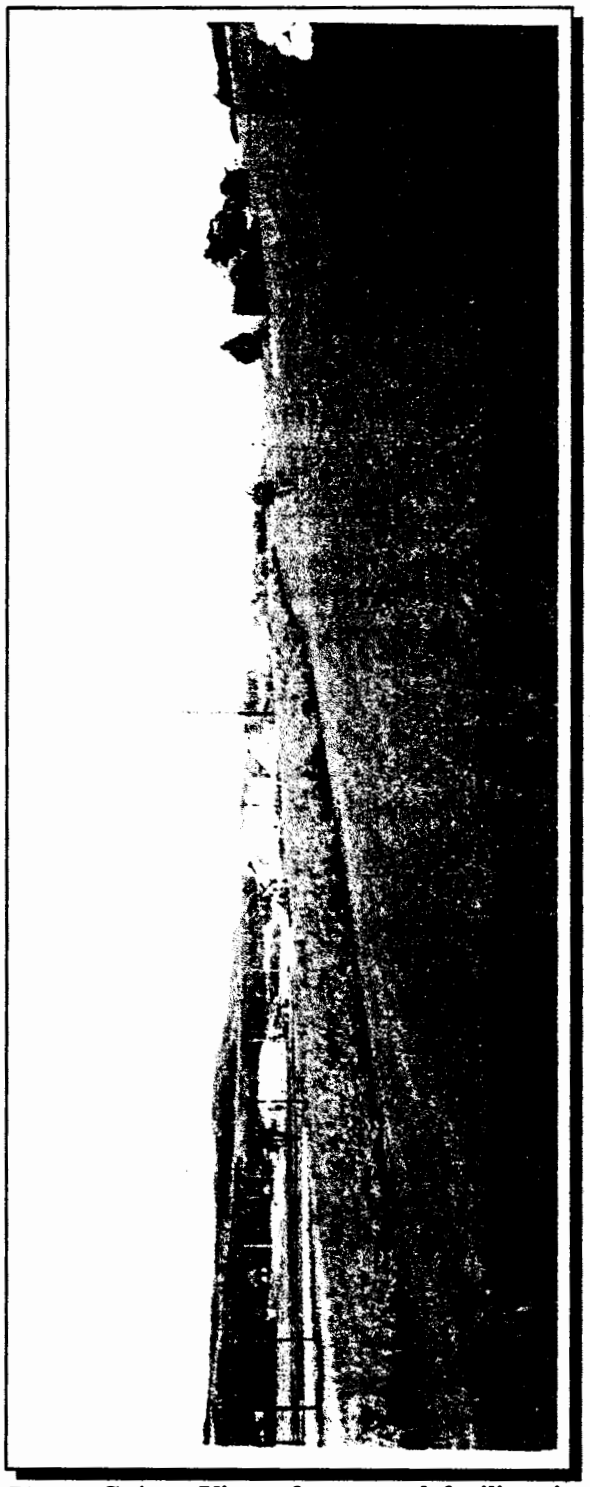


Figure C-4. View of proposed facility site from Receptor 4.

Roundwood Facility, due to its proximity of 457.2 meters (1,500 feet), dominates the view. The primary mill structures are located at a distance of approximately 975.4 meters (3,200 feet).

Receptor 5 - Residence off Colonial Valley Road. A generally flat landscape exists west of the proposed site extending beyond the Roundwood Facility and Colonial Valley Road. The nearest residence in this vicinity, selected as the sensitive receptor, is the residence of the owner and operator of a large chicken breeding operation (T & J Breeder Farm) located adjacent to the residence. The view to the east of the receptor towards the proposed site is dominated by the breeder chicken building which is approximately 152.4 meters (500 feet) in length, and obscures most of the view of the Roundwood Facility and mill structures (Figure C-5). However, the direct viewscape to the proposed site is south of the chicken breeder building and, due to the flat terrain and lack of intervening structures, is unimpeded. At a distance of approximately 914.4 meters (3,000 feet) with an unimpeded view, the proposed site is presently not visible from this receptor.

Receptor 6 - Residence on Spring Grove Road (SR 3072). Scattered residences are located along both sides of Spring Grove Road [an east-west alignment running roughly parallel to and approximately 1.2 km (¾ mile) north of Route 116] for a 2.4 km (1.5 mile) stretch between its intersection with Colonial Valley Road in Menges Mill, and the developed area around the high school in Spring Grove. Generally, views of the existing mill and the proposed facility site in this area are impeded by terrain and distance. However, several residences midway along this stretch of road, near Menges Mills, have a partially screened view (by vegetation and terrain) of the mill. A residence in this general area was selected as a representative sensitive receptor for views from northwest of the proposed facility site. The approximate distance of 1,066.8 meters (3,500 feet) between this receptor and the proposed site serves to minimize the visual effect of the mill structures (Figure C-6). Open areas, rolling terrain, and rural vistas dominate the foreground and intermediate ground; the background consists of rolling hills.

Receptor 7 - Residence at Intersection of High Street and West Constitution Avenue in Spring Grove. The majority of Spring Grove Borough's residential, institutional, and commercial areas are located beyond the P. H. Glatfelter Company mill from the proposed facility site and at a lower elevation than the proposed facility site; therefore, these areas do not presently have views of the proposed facility site. An elevated residential area north of the mill as well as an adjacent cemetery typically have unobstructed views (except for partial obstruction from seasonal vegetation) of the existing mill structures to the south, and of the proposed facility site and the Roundwood Facility to the southwest. The residence nearest to the mill, located at the southern boundary of this residential area, was selected as representative of the most sensitive viewshed in Spring Grove Borough. From a distance of approximately 243.8 meters (800 feet), the mill structures and sawdust piles dominate the view. Distant low hills are present in the background (Figure C-7).

Receptor 8 - Residential Area off Rockery Road. Receptor 8 is a residential area similar to Receptor 3. This receptor views trees in the immediate foreground, and the mill pond and existing P. H. Glatfelter Company structures in the distance to the northeast (Figure C-8). From this receptor, the proposed facility would be of similar scale and visual character to the existing P. H. Glatfelter Company mill structures because of its distance from the site.

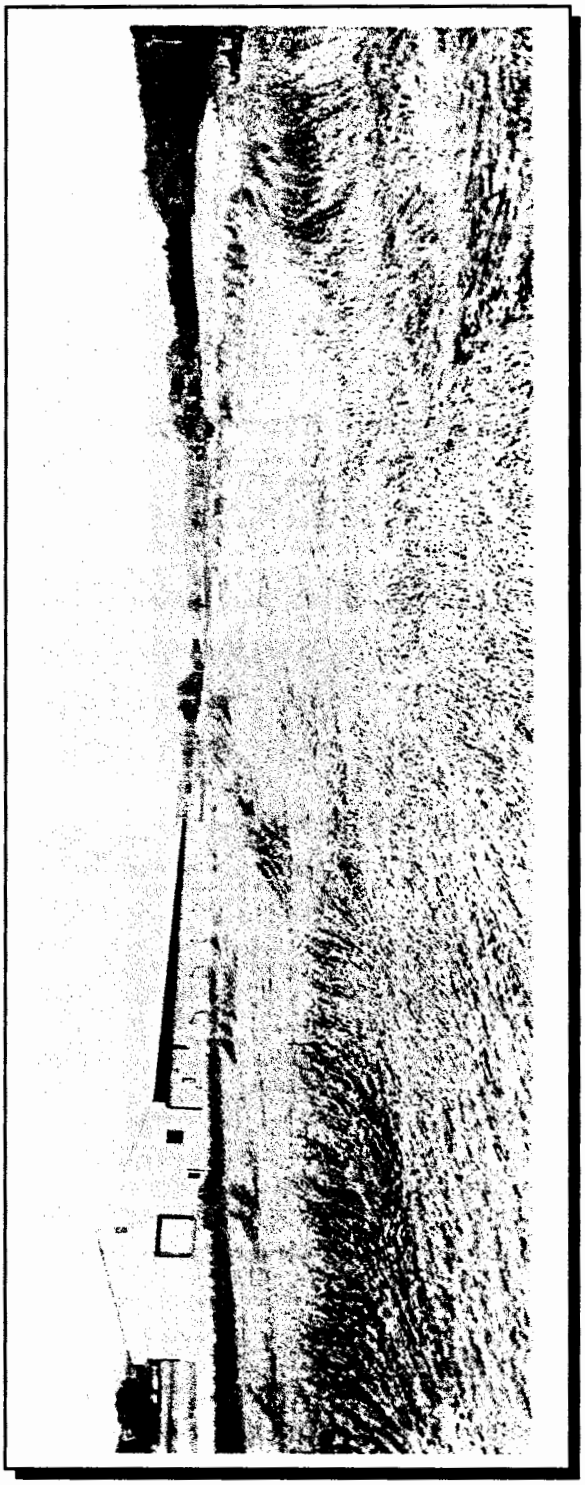


Figure C-5. View of proposed facility site from Receptor 5.

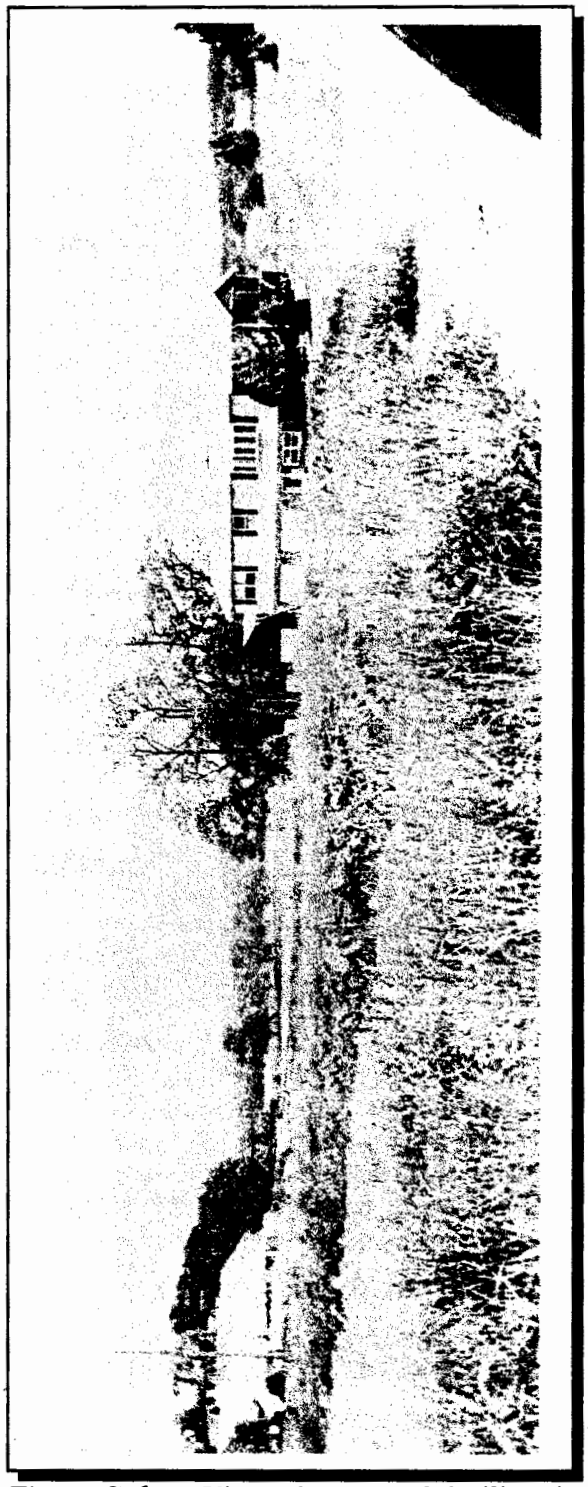


Figure C-6. View of proposed facility site from Receptor 6.

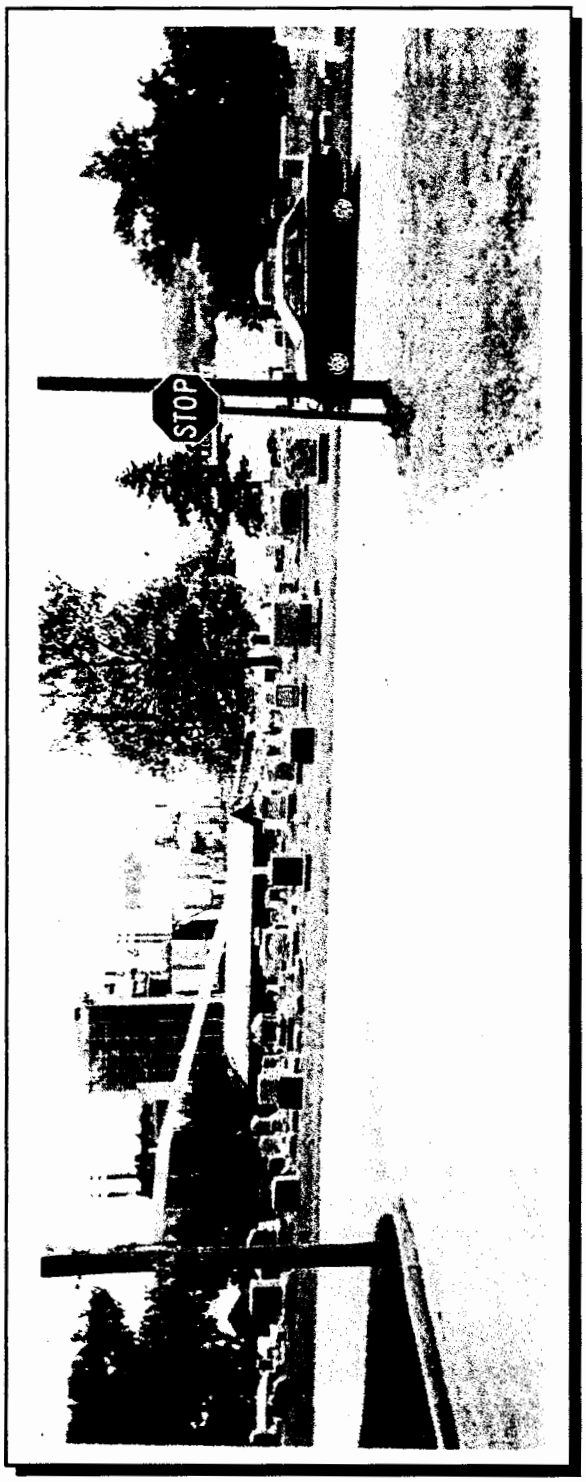


Figure C-7. **View of proposed facility site from Receptor 7.**

Receptor 9 — Residential Area on Lehman Road. In the foreground is the view of the Lions Club Pavilion and in the distance, the existing P. H. Glatfelter Company Roundwood Facility is visible. There is some vegetative screening in the vicinity of Kessler Pond (Figure C-9). The proposed facility, primarily the boiler building, would be the prominent feature in the viewshed. The visual impact associated with the development of the proposed facility to this receptor would be the replacement of more distant views of an industrial setting with a more proximate view.

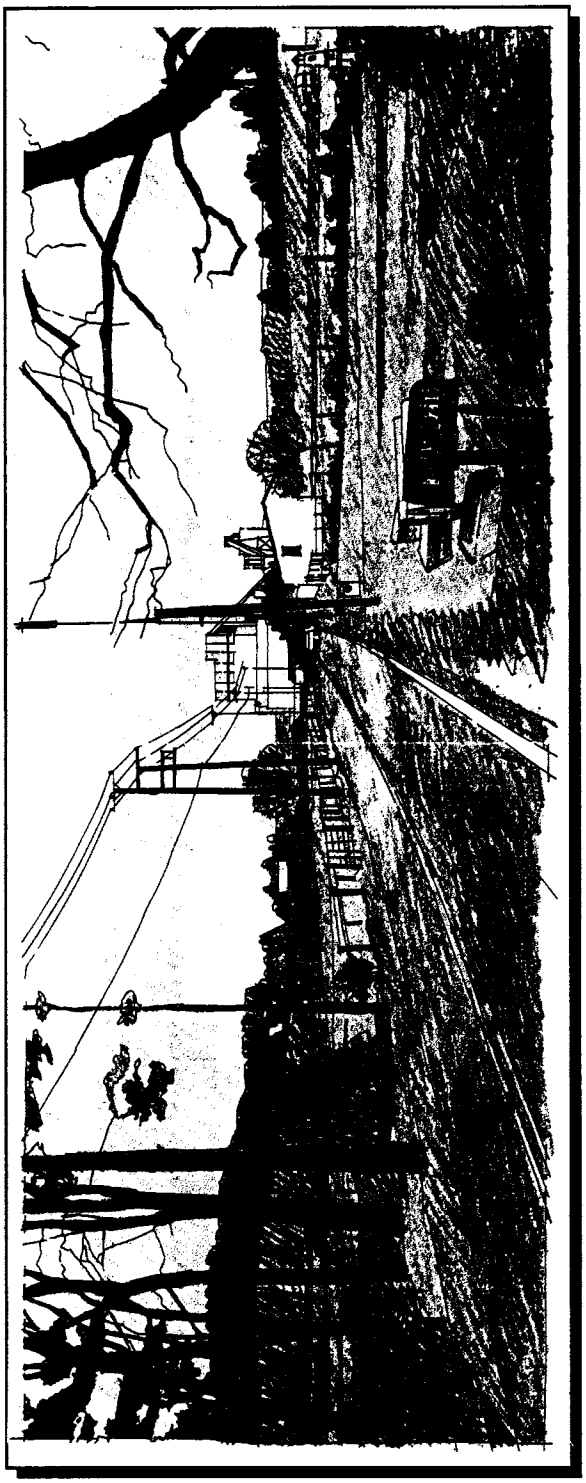


Figure C-8. View of proposed facility site from Receptor 8.



Figure C-9. View of proposed facility site from Receptor 9.

POTENTIALLY SENSITIVE CRITICAL VIEWPOINTS OF THE PROPOSED ELECTRICAL INTERCONNECTION CORRIDOR TO BAIR

Viewpoint 1 - Bair Substation Area. *Viewpoint 1 would consist of the view from the residential road in Bair leading into the substation area (Figure C-10). The expansion of the substation area would be located to the west of the existing substation area and would include a small paved access road and a chain-link fence surrounding a gravel area. The expansion facilities would be visually prominent from this viewpoint location.*

Viewpoint 2 - ACOE Flood Control Property. *Viewpoint 2 would consist of the view towards the ACOE flood control property from the intersection of Sunnyside Road and Martin Road (Figure C-11). The proposed electrical interconnection poles would be slightly visible against the vegetative background, and would be more prominent in areas where they extend above the tree line.*

Viewpoint 3 - ACOE Flood Control Property. *Viewpoint 3 would consist of the view within the ACOE flood control property from the pull-off area of Sunnyside Road and looking towards the wooded riparian area (Figure C-12). This viewpoint would be located directly beneath the proposed electrical interconnection line. The proposed electrical interconnection poles would not be visible.*

Viewpoint 4 - Martin Road. *Viewpoint 4 would consist of the view where the proposed electrical interconnection traverses Martin Road looking north (Figure C-13). The proposed electrical interconnection poles would be visually prevalent from this viewing location.*

Viewpoint 5 - Martin Road. *Viewpoint 5 would consist of the view where the proposed electrical interconnection traverses Martin Road looking south (Figure C-14). The proposed electrical interconnection poles would be visible, but would be slightly less prominent due to the vegetative background and more distant pole locations.*

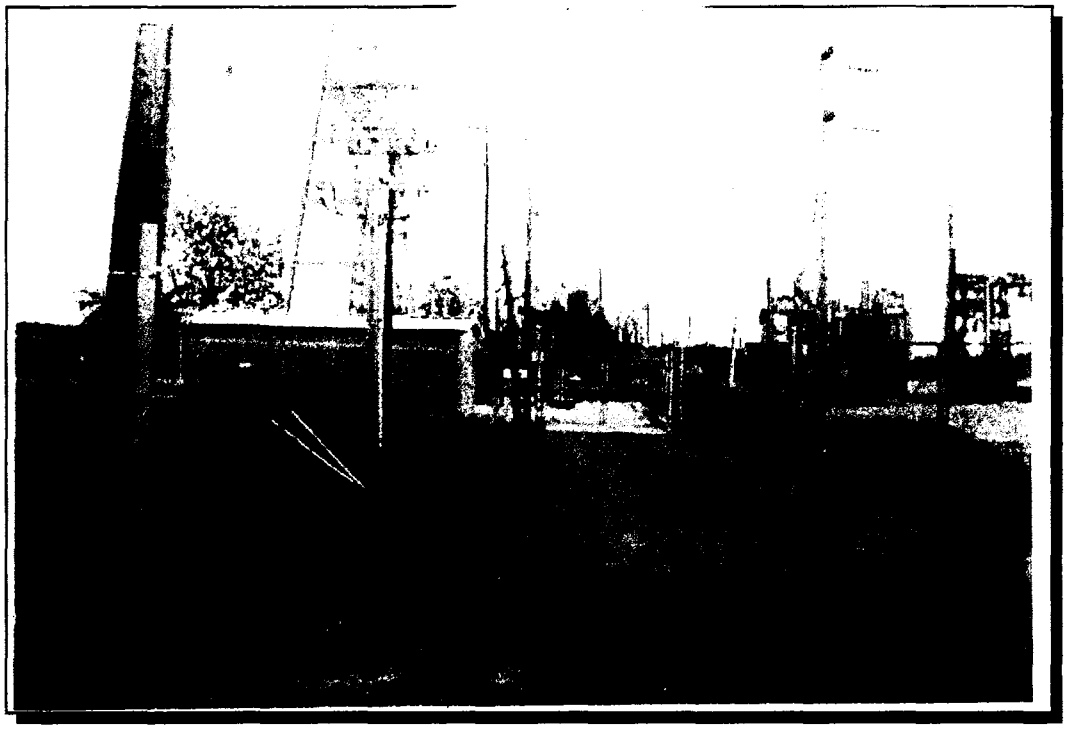


Figure C-10. View of proposed Bair Substation Area from Viewpoint 1.

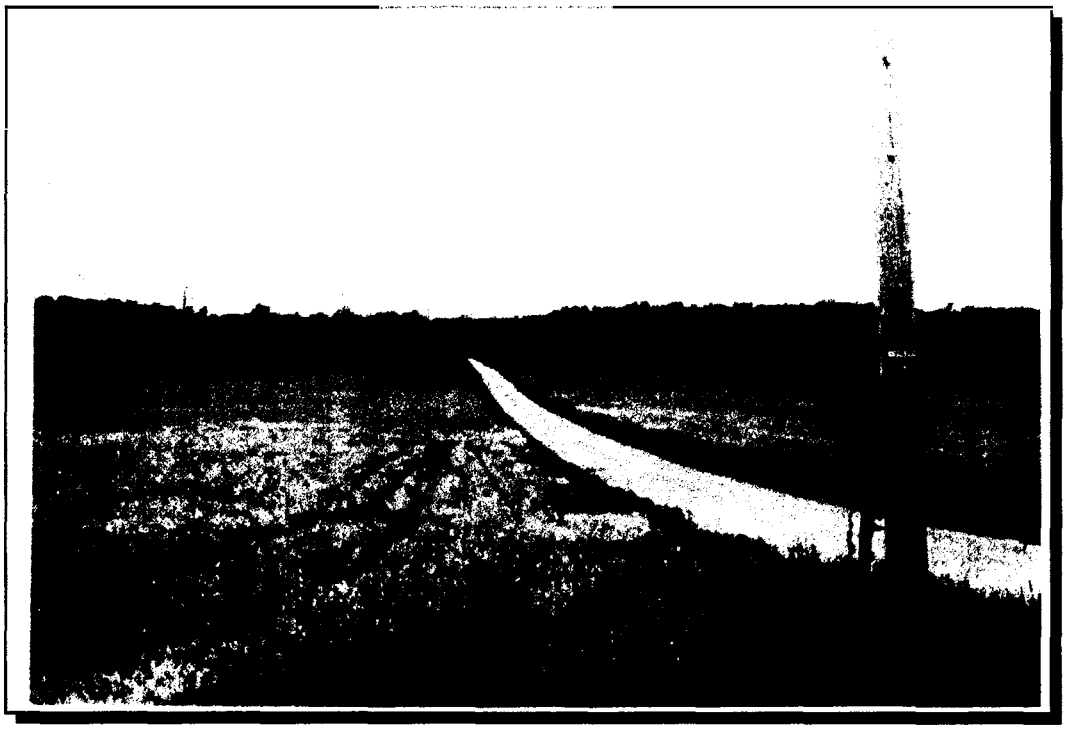


Figure C-11. View of proposed ACOE Flood Control Property from Viewpoint 2.

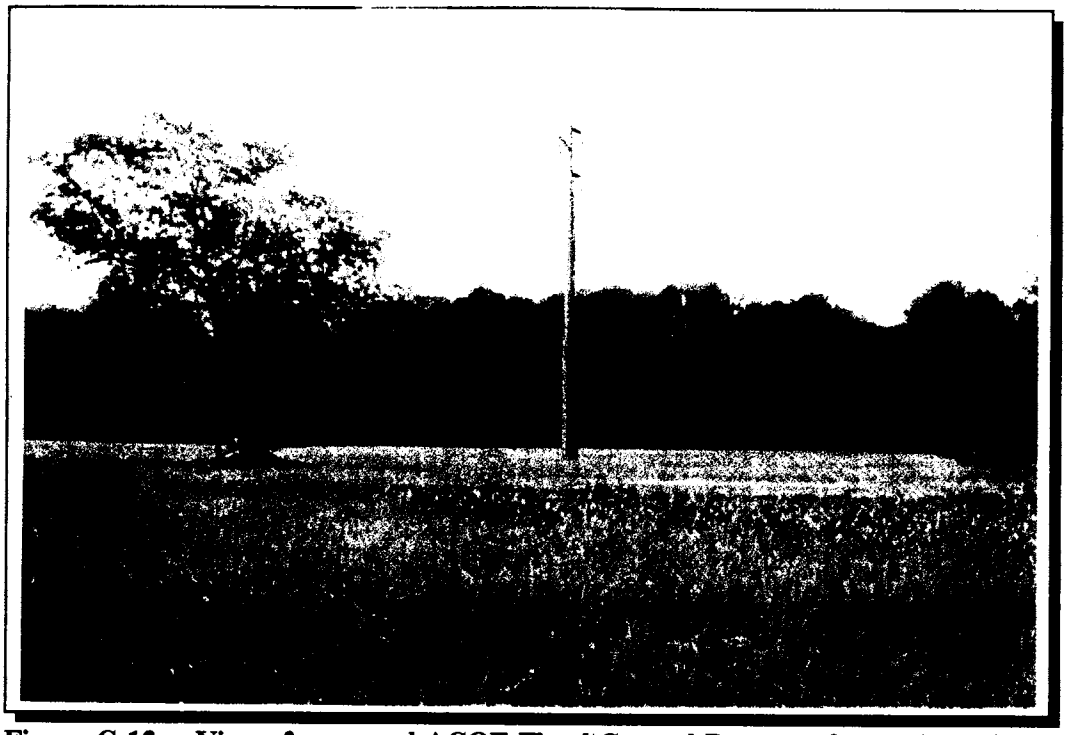


Figure C-12. View of proposed ACOE Flood Control Property from Viewpoint 3.

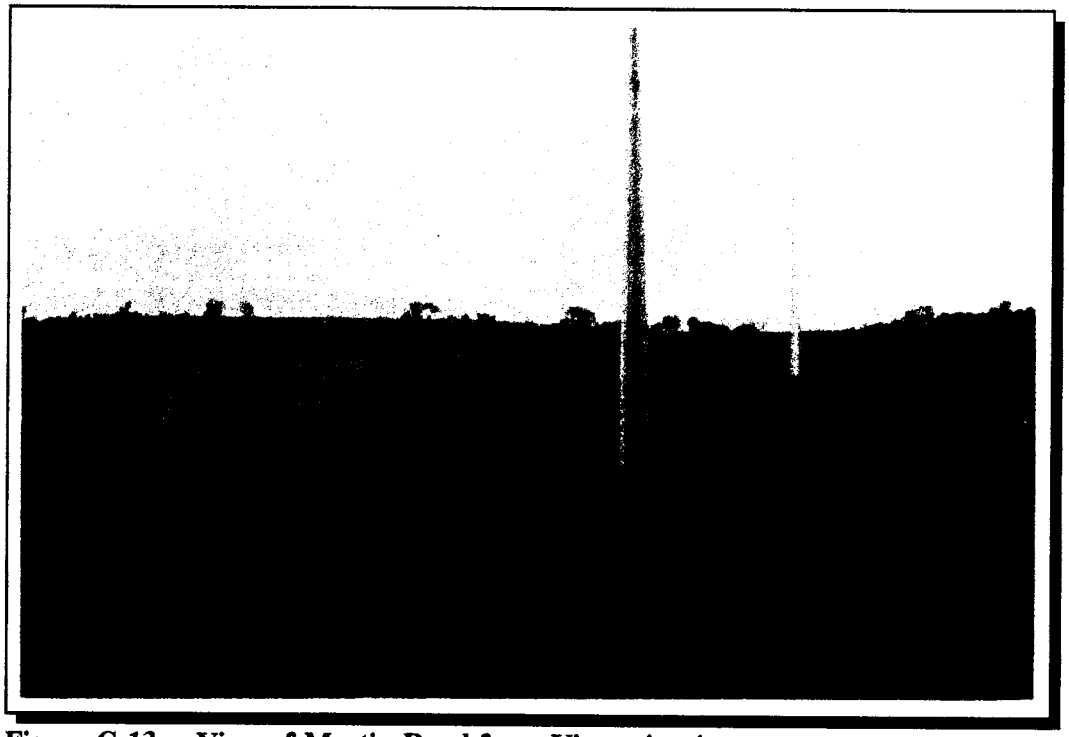


Figure C-13. View of Martin Road from Viewpoint 4.



Figure C-14. View of Martin Road from Viewpoint 5.

POTENTIALLY SENSITIVE VISUAL RECEPTORS OF THE WEST MANCHESTER TOWNSHIP ALTERNATIVE SITE

Receptor 1 - Residences South of Route 30. The residences, located southwest of the proposed West Manchester alternative site on the southern side of Route 30, have unobstructed views of the alternative site. Ornamental shade trees along Emigs Mill Road with the industrial structures of the J.E. Baker Company are visible beyond the site.

Receptor 2 - Briarwood Golf Course. The Briarwood Golf Course is located opposite a hedgerow and gully that create the western boundary of the alternative site. Golfers would have screened views of the site because the vegetated gully creates somewhat of a visual buffer. Less obstructed views of the site would be available from the southern areas of the golf course with the diminishing of the hedgerow. Only the Yorkrail rail bed divides the site from the golf course at this area.

Receptor 3 - Honey Run Residence. The Honey Run Residential Development is located at a higher elevation directly north of the alternative site within agricultural, open space recreational, and rural residential land uses. Views to the south of these residences are relatively uninterrupted in the direction of the alternative site. However, the view of the actual site is intercepted by existing vegetation and the rolling terrain surrounding the alternative site.

Receptor 4 - Residence at the Intersection of Baker Road/Route 234. Neither the West Manchester alternative site nor the J.E. Baker Company Facilities are visible from the rural residence located to the northeast of the alternative site at the intersection of Baker Road and Route 234. Thick vegetation bordering the J.E. Baker Company property serves to completely screen the view of The J.E. Baker Company property and the alternative site to the southwest of this residence.

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Appendix D: Pader Water Quality Criteria and Major Users and Dischargers of Water

APPENDIX D: PADER WATER QUALITY CRITERIA AND MAJOR USERS AND DISCHARGERS OF WATER

Table D-1. Water quality criteria applicable to warm water fishery designated reaches of Codorus Creek.

Parameter	Symbol	Criteria	Critical Use*
Aluminum	Al	Maximum 0.1 of the 96-hour LC_{50} for representative important species as determined through substantial available literature data or bioassay tests tailored to the ambient quality of the receiving waters.	1
Alkalinity	Alk_1	Minimum 20 mg/l as $CaCO_3$, except where natural conditions are less. Where discharges are to waters with 20 mg/l or less alkalinity, the discharge should not further reduce the alkalinity of the receiving waters.	1
Ammonia Nitrogen	Am	$f(pH) = 1 + 10^{1.03(7.32-pH)}$ $f(T) = 1, T \geq 10°C$ $f(T) = \frac{1 + 10^{(9.73-pH)}}{1 + 10^{(pK_T - pH)}}, T < 10°C$ and $pK_T = 0.090 + \frac{2730}{(T+273.2)}$, the dissociation constant for ammonia in water The average total ammonia nitrogen concentration over any 30 consecutive days shall be less than or equal to the numerical value given by: un-ionized ammonia nitrogen (NH_3-N) x ($\log^{-1}[pK_T - pH] + 1$), where: un-ionized ammonia nitrogen = 0.025 x f(T)/f(pH) $f(pH) = 1, pH \geq 7.7$ $f(pH) = 10^{0.74(7.7-pH)}, pH < 7.7$ $f(T) = 1, T \geq 10°C$ $f(T) = \frac{1 + 10^{(9.73-pH)}}{1 + 10^{(pK_T - pH)}}, T < 10°C$ The pH and temperature used to derive the appropriate ammonia criteria shall be determined by one of the following methods: 1) Instream measurements, representative of median pH and temperature - July through September 2) Estimates of median pH and temperature - July through September - based upon available data or values determined by the Department	1
Ammonia Nitrogen (continued)	Am	For purposes of calculating effluent limitations based on this value the accepted design stream flow shall be the actual or estimated lowest 30-consecutive-day average flow that occurs once in 10 years	1
Bacteria	Bac_1	During the swimming season (May 1 through September 30), the maximum fecal coliform level shall be a geometric mean of 200 per 100 milliliters (ml) based on five consecutive samples each sample collected on different days; for the remainder of the year, the maximum fecal coliform level shall be a geometric mean of 2,000 per 100 milliliters (ml) based on five consecutive samples collected on different days.	3

Parameter	Symbol	Criteria	Critical Use*
Dissolved oxygen	DO_2	Minimum daily average 5.0 mg/l; minimum 4.0 mg/l. For the elilimnion of lakes, pounds and impoundments, minimum daily average of 5.0 mg/l, minimum of 4.0 mg/l.	1
Color	Col_2	Maximum ***50*** units on the platinum-cobalt scale; no other colors perceptible to the human eye	2
Fluoride	F_1	Daily average 2.0 mg/l.	2
	F_2	Four-day average 0.01 of the 96-hour LC_{50}; one-hour average 0.05 of the 96-hour LC_{50} for representative important species as determined through substantial available literature data or bioassay tests tailored to the ambient quality of the receiving water, or both.	1
Iron	Fe	Daily average 1.5 mg/l as total iron; maximum 0.3 mg/l as dissolved iron.	1, 2
Manganese	Mn	Maximum 1.0 mg/l	2
Nitrite Nitrate	plus N	Maximum 10 mg/l as nitrogen.	2
Osmotic Pressure	OP	Maximum 50 millosmoles per kilogram or criteria developed using §93.5(d) (relating to the application of water quality criteria to discharge of pollutants).	1
pH	PH_1	From 6.0 to 9.0 inclusive	1
Phenolics (except Section 307 (a)(1)(33 U.S.C.A. § 1317(a)(1)),	$Phen_1$	Maximum 0.005 mg/l.	2
Priority Pollutants)	$Phen_5$	Four-day average 0.02 mg/l; 1-hour average 0.1 mg/l.	1
Temperature	Temp	Based on P.H. Glatfelter's "maximum weekly average permitted temperature" downstream of Outfall No. 001 developed through a thermal impact analysis conducted in accordance with the facility's 316(a) demonstration dated January 31, 1979.	1
		Period — **Temperature °F** January 1-31 — 60 February 1-28 — 69 March 1-31 — 78 April 1-30 — 87 May 1-31 — 87 June 1-30 — 87 July 1-31 — 87 August 1-31 — 87 September 1-30 — 87 October 1-31 — 84 November 1-30 — 80 December 1-31 — 70	
Total Dissolved Solids	TDS_1	500 mg/l as a monthly average value; maximum 750 mg/l.	2

Parameter	Symbol	Criteria	Critical Use*

* The most sensitive designated water use the criteria are intended to protect, identified by the following:
  1 = Aquatic Life
  2 = Water Supply; and
  3 = Recreation

Source: Pennsylvania Code, Title 25-Environmental Resources, Chapter 93 - Water Quality Standards

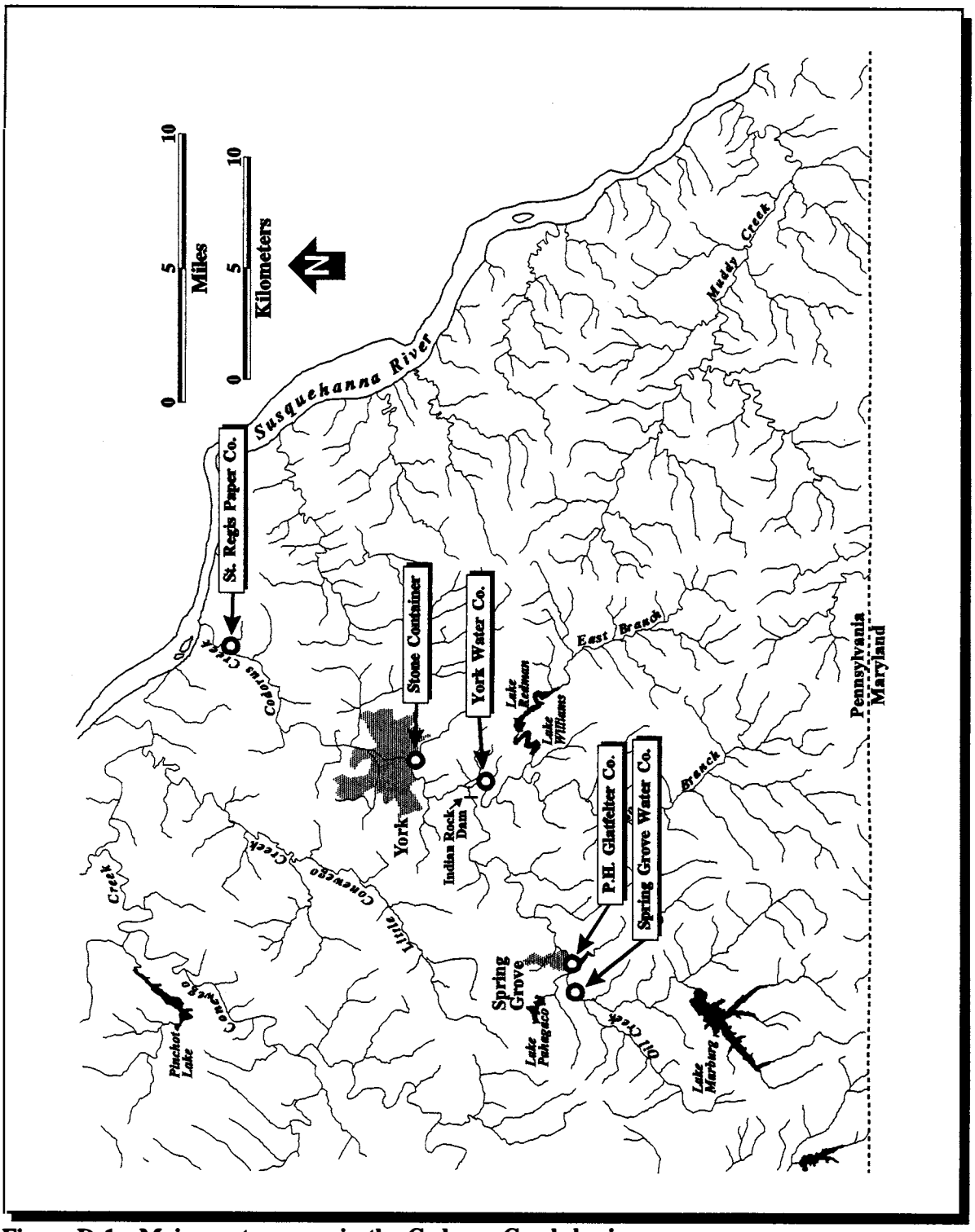


Figure D-1. Major water users in the Codorus Creek basin.

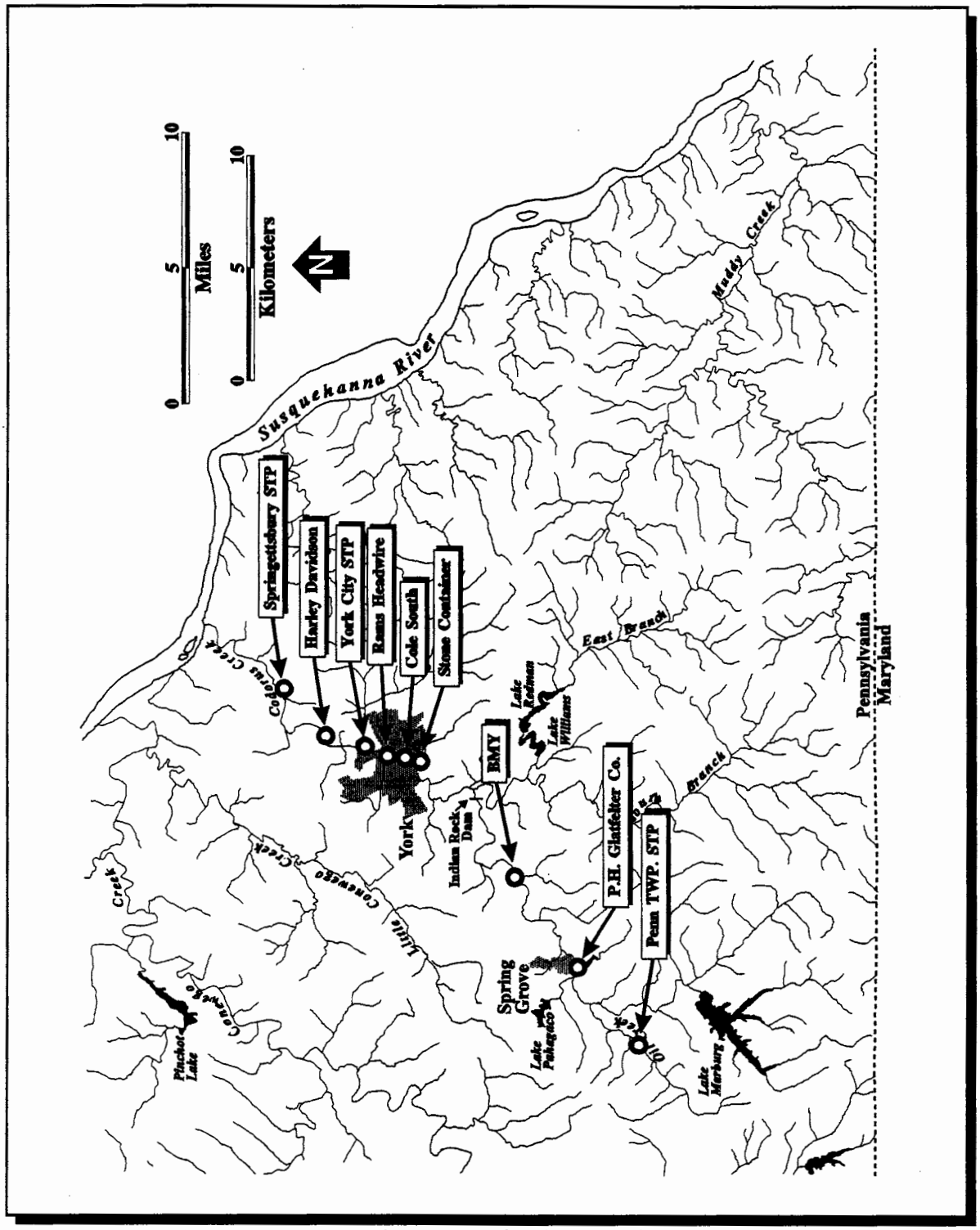


Figure D-2. Major wastewater dischargers in the Codorus Creek basin.

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Appendix E: Agency Coordination Letters *and Other Relevant Correspondence*

P. H. GLATFELTER COMPANY

CORPORATE HEADQUARTERS / SPRING GROVE, PA 17362-0500 / (717) 225-4711

June 27, 1988

CERTIFIED MAIL

Mr. Leon M. Oberdick
Regional Water Quality Manager
Harrisburg Regional Office
PA DER Bureau of Water Quality Management
One Ararat Boulevard
Harrisburg, PA 17110

Re: P. H. Glatfelter Company, Spring Grove, PA
Industrial Water NPDES Permit No. PA 0008869

Dear Mr. Oberdick:

Please find enclosed three copies of our completed "NPDES Permit Renewal Application" along with a check for the $500 filing fee. Our existing NPDES permit expires May 22, 1989. This renewal application has been submitted ahead of the required date (11/22/88) as requested by PA DER. The letters notifying the affected local governments have been mailed. Copies will be furnished along with proof-of-delivery by July 15.

Similar to our last submittal, NPDES Consolidated Permits Program - Application Forms 1 and 2C were used as instructed by PA DER. If there are any questions, please contact Larry R. Metzger or me and we will be happy to meet with you at your convenience.

Sincerely,

P. H. GLATFELTER CO.

C. Neal Carter

C. Neal Carter, Ph.D. P.E.
Tech.-Env. Control Director

LRM:CNC:kak
Enclosures

cc: Main Office
J. F. Myers
L. R. Metzger
File: T710-655
Matthew Strickler
R. W. Wand

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

BUREAU OF WATER QUALITY MANAGEMENT
Harrisburg Regional Office
One Ararat Boulevard
Harrisburg, Pennsylvania 17110
(717) 657-4590
September 27, 1989

C. Neal Carter, Ph.D., P.E.
Corporation Environmental Director
P.H. Glatfelter Co.
288 S. Main Street
Spring Grove, Pa. 17362-0500

Re: Industrial Waste
P.H. Glatfelter Co.
NPDES Application No. PA0008869
Spring Grove Borough, York County

Dear Mr. Carter:

The Department will be instituting a basin-wide permitting policy beginning in FY 1989. The Codorus Creek watershed is one of the watersheds targeted for evaluation. The Department is thus administratively extending your NPDES permit until September 30, 1991. A revised page 1 of your permit is enclosed that reflects the new expiration date. P.H. Glatfelter may continue to discharge under the provisions of their existing permit until that date, with the exception that the attached Part C conditions for biomonitoring shall also apply.

For clarification purposes, a revised page 14 b is also enclosed to reference the interim color limits for outfall 001 that are in effect as a result of the amended Consent Adjudication dated May 16, 1989.

Should you have any questions regarding this matter, please do not hesitate to contact Mr. Edward J. Corriveau, Chief, Permits and Grants Section or me at the above address.

Sincerely,

Leon M. Oberdick
Regional Water Quality Manager
Harrisburg Regional Office

Environmental Resources Management, Inc.

116 Defense Highway • Suite 300 • Annapolis, Maryland 21401 • (410) 266-0006

6 March 1992

Mr. Richard Snyder
Chief of Fisheries Management Division
Pennsylvania Fish Commission
450 Robinson Lane
Bellefonte, Pennsylvania 16823-9616

FILE: 34305.00.01

Dear Mr. Snyder:

Environmental Resources Management, Inc. (ERM) is requesting information available concerning endangered or threatened fish, reptile, and amphibian species protected by the Federal Endangered Species Act of 1973 or recognized by the Pennsylvania Fish Commission on and adjacent to a site in York County, Pennsylvania. I have enclosed a copy of the West York, Pennsylvania USGS topographic quadrangle with the site indicated. Please feel free to contact me if you should have any questions. Thank you for your attention to this request.

Sincerely,

Sandra L. Collins

slc
Enclosure: 1

cc: P. Gratton

slc/air products/york fisheries 3-6-92

Environmental Resources Management, Inc.

116 Defense Highway • Suite 300 • Annapolis, Maryland 21401 • (410) 266-0006

6 March 1992

Botanist
Pennsylvania Department of Environmental Resources
Bureau of Forestry, Forest Advisory Services
P.O. Box 1467
Harrisburg, Pennsylvania 17120

FILE: 34305.00.01

Dear Botanist:

Environmental Resources Management, Inc. (ERM) is requesting information concerning known endangered, threatened or rare plant species protected by the Federal Endangered Species Act of 1973 or recognized by the Pennsylvania Department of Environmental Resources for a site in York County, Pennsylvania. I have enclosed a copy of the West York, Pennsylvania USGS topographic quadrangle with the site indicated. Please feel free to contact me if you should have any questions. Thank you for your attention to this request.

Sincerely,

Sandra L. Collins

slc
Enclosure: 1

cc: P. Gratton

slc/air products/york plant endangered 3-6-92

Environmental Resources Management, Inc.

116 Defense Highway • Suite 300 • Annapolis, Maryland 21401 • (410) 266-0006

6 March 1992

Mr. Jacob Sitlinger
Pennsylvania Game Commission
2001 Elmerton Avenue
Harrisburg, Pennsylvania 17110-9797

FILE: 34305.00.01

Dear Mr. Sitlinger:

Environmental Resources Management, Inc. (ERM) is requesting information on endangered or threatened birds or mammals protected by the Federal Endangered Species Act of 1973 or recognized by the Pennsylvania Game Commission, or habitat for these species which may be located on or adjacent to a site in York County, Pennsylvania. I have enclosed a copy of the West York, Pennsylvania USGS topographic quadrangle with the site indicated. Please feel free to contact me if you should have any questions. Thank you for your attention to this request.

Sincerely,

Sandra L. Collins

Sandra L. Collins

slc
Enclosure: 1

cc: P. Gratton

slc\air products\york game commission 3-6-92

Environmental Resources Management, Inc.

•16 Defense Highway • Suite 300 • Annapolis, Maryland 21401 • (410) 266-0006

6 March 1992

Pennsylvania Natural Diversity Inventory
Bureau of Forestry
Forest Advisory Services
PNDI Coordinator
P.O. Box 1467
Harrisburg, Pennsylvania 1720

FILE: 34305.00.01

Dear PNDI:

Environmental Resources Management, Inc. (ERM) is requesting information concerning known rare, threatened or endangered plant and animal species for a site in York County, Pennsylvania. I have enclosed a copy of the West York, Pennsylvania USGS topographic quadrangle with the site indicated. Please feel free to contact me if you should have any questions. Thank you for your attention to this request.

Sincerely,

Sandra L. Collins

slc
Enclosure: 1

cc: P. Gratton

sle/air products/york/pandi endangered 3-6-92

Environmental Resources Management, Inc.

116 Defense Highway • Suite 300 • Annapolis, Maryland 21401 • (410) 266-0006

6 March 1992

Dr. Brent Glass
Pennsylvania Historic Preservation Officer
Pennsylvania Historical and Museum Commission
P.O. Box 1026
Harrisburg, Pennsylvania 17108-1026

FILE: 34305.00.01

Dear Dr. Glass:

Environmental Resources Management, Inc. (ERM) is requesting information concerning known historic structures, sites, or archeological resources for a site in York County, Pennsylvania. I have enclosed a copy of the West York, Pennsylvania USGS topographic quadrangle with the site indicated. Please feel free to contact me if you should have any questions. Thank you for your attention to this request.

Sincerely,

Sandra L. Collins

slc
Enclosure: 1

cc: P. Gratton

slc/air products/york/state historical 3-6-92

Environmental Resources Management, Inc.

[illegible] Defense Highway • Suite 300 • Annapolis Maryland [illegible] • [illegible] 266-0006

6 March 1992

Mr. Charles J. Kulp
US Fish and Wildlife Service
315 South Allen Street
Suite 322
State College, Pennsylvania 16801

FILE: 34305.00.01

Dear Mr. Kulp:

Environmental Resources Management, Inc. (ERM) is requesting information on endangered species protected by the Federal Endangered Species Act of 1973 or habitat for these species which may be located on or adjacent to a site in York County, Pennsylvania. I have enclosed a copy of the West York, Pennsylvania USGS topographic quadrangle with the site indicated. Please feel free to contact me if you should have any questions. Thank you for your attention to this request.

Sincerely,

Sandra L. Collins

Sandra L. Collins

slc
Enclosure: 1

cc: P. Gratton

slc/air products/york/usfws endangered 3-6-92

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Suite 322
315 South Allen Street
State College, Pennsylvania 16801

March 16, 1992

RECEIVED
MAR 1992

Ms. Sandra L. Collins
Environmental Resources
Management, Inc.
116 Defense Highway
Suite 300
Annapolis, MD 21401

Dear Ms. Collins:

This responds to your letter of March 6, 1992 requesting information concerning the presence of federally listed or proposed endangered and threatened species within the area affected by a project located in York County, Pennsylvania.

Except for occasional transient species, no federally listed or proposed threatened or endangered species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the Fish and Wildlife Service. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. A compilation of federally listed endangered and threatened species in Pennsylvania is enclosed for your information. Requests for information regarding State-listed endangered or threatened species should be directed to the Pennsylvania Game Commission (wildlife), the Pennsylvania Fish Commission (fish, reptiles and amphibians) and the Pennsylvania Department of Environmental Resources (plants).

This response relates only to endangered or threatened species under our jurisdiction, based on an office review of the proposed project's location. No field inspection of the project area has been conducted by this office. Consequently, this letter is not to be construed as addressing other Service concerns under the Fish and Wildlife Coordination Act or other legislation.

If we can be of further assistance, please contact Philip Edmunds of this office at 814-234-4090.

Sincerely,

Charles J. Kulp
Supervisor

Enclosure

COMMONWEALTH OF PENNSYLVANIA

PENNSYLVANIA GAME COMMISSION

2001 ELMERTON AVENUE
HARRISBURG, PA 17110-9797

ADMINISTRATIVE BUREAUS:

ADMINISTRATION	787-5670
AUTOMOTIVE AND PROCUREMENT DIVISION	787-6594
LICENSE DIVISION	787-2084
PERSONNEL DIVISION	787-7836
WILDLIFE MANAGEMENT	787-5529
INFORMATION & EDUCATION	787-6286
LAW ENFORCEMENT	787-5740
LAND MANAGEMENT	787-6818
REAL ESTATE DIVISION	787-6568
MANAGEMENT INFORMATION SYSTEMS	787-4076

March 17, 1992

Ms. Sandra L. Collins
Environmental Resources Management, Inc.
116 Defense Highway
Suite 300
Annapolis, Maryland 21401

In re: Site Review
Manchester Township, York County

Dear Ms. Collins:

This is in response to your letter requesting information concerning threatened and endangered species of birds and mammals as related to this project.

Our office review has determined that except for occasional transient individuals, this project should not affect any endangered or threatened species of birds and mammals protected by the Federal Endangered Species Act of 1973 or recognized by the Pennsylvania Game Commission.

This response is related only to endangered species, it does not address other concerns of the Game Commission. If it is determined that the project may impact critical or unique habitats such as wetlands, wintering areas, or nesting cover, you may be requested to conduct additional studies.

If you have any questions, please contact Roland Bergner of staff at (717) 783-4919.

Very truly yours,

G. J. Grabowicz

Gregory J. Grabowicz, Director
Bureau of Land Management

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA FISH COMMISSION
Division of Fisheries Management
450 Robinson Lane
Bellefonte, PA 16823-9616
(814) 359-5110

March 17, 1992

ENVIRONMENTAL RESOURCES MANAGEMENT, INC.
Sandra L. Collins
Suite 300
116 Defense Highway
Annapolis, MD 21401

Dear Ms. Collins:

I have examined the map accompanying your recent correspondence which shows the location for the proposed environmental assessment in York County, Pennsylvania.

Presently, none of the fishes, amphibians, or reptiles we list as endangered or threatened are known to occur at or in the immediate vicinity of this study area.

Sincerely,

Clark N. Shiffer

Clark N. Shiffer
Herpetology & Endangered Species Coordinator

clb

c: R. Snyder

RESOURCE FIRST
PROTECT • CONSERVE • ENHANCE

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION
BUREAU FOR HISTORIC PRESERVATION
BOX 1026
HARRISBURG, PENNSYLVANIA 17108-1026

March 25, 1992

Sandra L. Collins
Environmental Resources Management, Inc.
116 Defense Highway, Suite 300
Annapolis, Maryland 21401

TO EXPEDITE REVIEW
USE BHP REFERENCE NUMBER

Re: ER #92-1801-133-A
File # 34305.00.01, West Manchester Township, York County

Dear Ms. Collins:

The Bureau for Historic Preservation has reviewed this State funded, assisted or licensed project under the authority of the Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 507 et. seq. (1988). This review includes comments on the project's potential effect on both historic and archaeological resources.

All agency project assessments requiring the comments of the Pennsylvania State Historic Preservation Officer should include the funding program, a project description, project location, and cultural resource site information as outlined in 36 CFR Part 800.4 (Identifying Historic Properties). Because your request does not include sufficient information, we are unable to proceed with our review until the information on the attached form is provided.

If you need further information in this matter please consult Susan Zacher at (717) 783-8946 or 783-8947.

Sincerely,

Kurt W. Carr, Chief
Division of Archaeology
and Protection

Enclsoure
KWC/dlc

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

Bureau of Forestry
Forest Advisory Services
P.O. Box 8552
Harrisburg, PA 17105-8552

717/787-3444

April 15, 1992

Sandra L. Collins
Environmental Resources Management, Inc.
116 Defense Highway, Suite 300
Annapolis, MD 21401

Dear Ms. Collins:

Re: PNDI Review of a 25 Acre Tract in North Codorus Township, York County, Pennsylvania. ERM Reference: 34309.01.01

Your request of February 24 to review an area in North Codorus Township, York County, for the presence of natural resources of special concern was processed using the Pennsylvania Natural Diversity Inventory (PNDI) information system. A review of PNDI in comparison with the referenced site did not reveal any natural resources of special concern.

PNDI is a site specific information system which describes significant natural resources of Pennsylvania. PNDI includes data descriptive of plant and animal species of special concern, exemplary natural communities and unique geological features. This response represents the most up-to-date summary of the PNDI data files. However, the absence of recorded information does not necessarily imply actual conditions on-site. A field survey of any site may reveal previously unreported populations.

Be advised that legal authority for Pennsylvania's biological resources resides with three administrative agencies. The enclosure titled, PNDI Species List, outlines which species groups are managed by these agencies. Please phone this office if you should have questions concerning this response or PNDI.

Sincerely,

Edward T. Dix
Botanist

Enclosures

cc: Anthony Wilkinson, PNDI-East File

An Equal Opportunity/Affirmative Action Employer

Recycled Paper

PENNSYLVANIA NATURAL DIVERSITY INVENTORY

SPECIES LISTS

The statutory authority for Pennsylvania's animals and plants resides with three separate agencies. The Pennsylvania Department of Environmental Resources has the responsibility for management of the Commonwealth's native wild plants. The Pennsylvania Fish Commission is responsible for management of fish, reptiles, amphibians and aquatic organisms within the Commonwealth. The Pennsylvania Game Commission has the responsibility for managing the state's wild birds and mammals.

For information on current official status for a species, please consult the appropriate agency. Requests for information should be directed to:

PLANTS and PNDI - general	Plant Program Manager Pa. Department of Environmental Resources Bureau of Forestry Forest Advisory Services P. O. Box 8552 Harrisburg, PA 17105-8552 (717)787-3444
FISH, REPTILES, AMPHIBIANS, AQUATIC ORGANISMS	Endangered Species & Herpetology Coordinator Pennsylvania Fish Commission Bureau of Fisheries and Engineering 450 Robinson Lane Bellefonte, PA 16823 (814)359-5113
BIRDS and MAMMALS	Pennsylvania Game Commission Bureau of Wildlife Management 2001 Elmerton Avenue Harrisburg, PA 17110-9797 (717)787-5529

Invertebrate species are recommended for inclusion in PNDI by the Pennsylvania Biological Survey. For information concerning invertebrates with federal status contact:

Endangered Species Specialist
U.S. Fish and Wildlife Service
One Gateway Center, Suite 700
Newton Corner, MA 02158
(617)965-5100

Thank you for your request. Feel free to contact PNDI if we can be of further assistance.

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION
BUREAU FOR HISTORIC PRESERVATION
BOX 1026
HARRISBURG, PENNSYLVANIA 17108-1026

APR 1992
RECEIVED

March 25, 1992

Sandra L. Collins
Environmental Resources Management, Inc.
116 Defense Highway, Suite 300
Annapolis, Maryland 21401

TO EXPEDITE REVIEW
USE SHP REFERENCE NUMBER

Re: ER #92-1801-133-A
File # 34305.00.01, West Manchester Township, York County

Dear Ms. Collins:

The Bureau for Historic Preservation has reviewed this State funded, assisted or licensed project under the authority of the Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 507 et. seq. (1988). This review includes comments on the project's potential effect on both historic and archaeological resources.

All agency project assessments requiring the comments of the Pennsylvania State Historic Preservation Officer should include the funding program, a project description, project location, and cultural resource site information as outlined in 36 CFR Part 800.4 (Identifying Historic Properties). Because your request does not include sufficient information, we are unable to proceed with our review until the information on the attached form is provided.

If you need further information in this matter please consult Susan Zacher at (717) 783-8946 or 783-8947.

Sincerely,

Kurt W. Carr, Chief
Division of Archaeology
and Protection

Enclsoure
KWC/dlc

Environmental Resources Management, Inc.

116 Defense Highway • Suite 300 • Annapolis, Maryland 21401 • (301) 266-0006

21 May 1992

Mr. Kurt W. Carr
Chief of Archaeology and Protection
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
P.O. Box 1026
Harrisburg, Pennsylvania 17108-1026

FILE: 34305.00.01

RE: ER No. 92-1801-133-A, File No. 34305.00.01

Dear Mr. Carr:

Environmental Resources Management, Inc. (ERM) is requesting information concerning known historic structures, sites, or archaeological resources for a site in York County, Pennsylvania. As requested in your letter to ERM dated 25 March 1992 (Attachment 1), I have provided additional information concerning the project, funding, project location and information on historic resources identified by local governments and previous historic surveys of the surrounding area (Attachments 2, 3, 4, and 5). This information should be sufficient to initiate the Section 106 Review process.

Please feel free to contact me if you should have any questions. Thank you for your attention to this request.

Sincerely,

Sandra L. Collins

Sandra L. Collins

slc
enclosures: 5
cc: R. Keating, ERM
G. Kinsey, Air Products

Attachment 1
23 March Letter From The Pennsylvania Historical And Museum Commission

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

June 30, 1992

Sandra L. Collins
Environmental Resources Management, Inc.
116 Defense Highway, Suite 300
Annapolis, MD 21401

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

RE: ER #92-1801-133-B
File #34305.00.01, West
Manchester Township, York
County

Dear Ms. Collins:

The Bureau for Historic Preservation has reviewed this State funded, assisted or licensed project under the authority of the Environmental Rights amendment, Article 1, Section 27 of the Pennsylvania Constitution and the Pennsylvania History Code, 37 Pa. Cons. Stat. Section 507 et. seq. (1988). This review includes comments on the project's potential effect on both historic and archaeological resources.

The properties listed below, listed in or eligible for the National Register of Historic Places, are located near the project area. However, due to the nature of the activity, it is our opinion that there will be no effect on these properties. Should the applicant become aware, from any source, that unidentified historic or archaeological properties are located at the project site, or that the project activities will have an effect on these properties, the Bureau for Historic Preservation should be contacted immediately.

There is a high probability that prehistoric and historic archaeological resources are located in the project area and may be affected by this project. A Phase I archaeological survey of the project area is required to locate potentially significant archaeological resources. Guidelines and information for survey are enclosed.

If you need further information in this matter, please consult the Division of Archaeology at (717) 783-9900.

Sincerely,

Kurt W. Carr, Chief
Division of Archaeology
and Protection

KWC/ss

Enclosure

COMMONWEALTH OF PENNSYLVANIA

PENNSYLVANIA GAME COMMISSION

2001 ELMERTON AVENUE
HARRISBURG, PA 17110-9797

ADMINISTRATIVE BUREAUS:

ADMINISTRATION	787-5670
AUTOMOTIVE AND PROCUREMENT DIVISION	787-6594
LICENSE DIVISION	787-2084
PERSONNEL DIVISION	787-7836
WILDLIFE MANAGEMENT	787-5529
INFORMATION & EDUCATION	787-6286
LAW ENFORCEMENT	787-5740
LAND MANAGEMENT	787-6818
REAL ESTATE DIVISION	787-6568
MANAGEMENT INFORMATION SYSTEMS	787-4078

August 24, 1992

Dr. Suellen A. Van Ooteghem
U.S. Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Morgantown, West Virginia 26505

In re: York County Cogeneration Facility
West Manchester Township, York County

Dear Dr. Van Ooteghem:

This is in response to your letter requesting our review and comments as related to this project.

Your letter does not contain enough information for us to determine if your project may impact threatened and endangered species of birds or mammals or involve activities which may impact critical or unique wildlife habitats. Such activities include stream channelization, dredging or filling of streams, and any direct or indirect impacts on wetlands.

Work of this nature may also require permits from the U.S. Army Corps of Engineers and the Pennsylvania Department of Environmental Resources. If you are concerned that your project may involve the alteration of any water body or wetlands or if you would like advice on how to minimize adverse impacts to terrestrial resources, we will need site-specific, detailed information about project plans in order to complete our evaluation.

If you have any questions, please contact Roland Bergner of my staff at (717) 783-4919.

Very truly yours,

Denver A. McDowell, Chief
Division of Environmental
Planning and Habitat Protection
Bureau of Land Management

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

P.O. Box 2063
Harrisburg, PA 17105-2063

Deputy Secretary
for Air and Waste Management

717-772-2724
FAX 717-787-8885

August 24, 1992

Ms. Jan K. Wachter
Director ES&H Program Support Division
Department of Energy
Morgantown Energy Technology Center
PO Box 880
Collins Ferry Road
Morgantown, WV 26507-0880

Dear Ms. Wachter:

I received your August 5, 1992, letter regarding an Announcement of a Public Scoping Meeting for the York County Cogeneration Facility.

This Public Scoping Meeting involves our Regional Office Staff, therefore, I forwarded your letter to Mr. Gregg Robertson, Deputy Secretary for Field Operations on August 13, 1992. Mr. Robertson telephone number is 717-787-5028.

Sincerely,

Catherine W. Cowan

SUSQUEHANNA RIVER BASIN COMMISSION

INTERIOR BUILDING

WASHINGTON, D. C. 20240

OFFICE OF
UNITED STATES COMMISSIONER

August 25, 1992

Mr. Jan K. Wachter
Director
ES&H Program Support Division
Department of Energy
P.O. Box 880
Collins Ferry Road
Morgantown, WVA 26507-0880

Dear Mr. Wachter:

Thank you for your letter of August 5 inviting Commissioner McCarty to the public scoping meeting for the York County Cogeneration facility.

Our office recently moved and due to the lateness of receipt of your letter Commissioner McCarty will not be able to attend the August 26 meeting. However, I have spoken to the Commission's General Counsel and learned that comments will be forthcoming to you from the Commission's Executive Director concerning the cogeneration facility.

We would appreciate being kept informed of the Department's efforts on this issue.

Sincerely,

Jeanette B. Gordon
Staff Assistant to the
Commissioner

SUSQUEHANNA RIVER BASIN COMMISSION

1721 North Front Street • Harrisburg, Pennsylvania 17102

From the Office of the
Executive Director

August 27, 1992

Dr. Suellen A. Van Ooteghem
U.S. Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Morgantown, WV 26505

Re: York County Cogeneration Facility (Air Products),
West Manchester Twp., York Co., Pa.

Dear Dr. Van Ooteghem:

This letter is provided pursuant to your August 14, 1992 telephone conversation with Mr. David Heicher of my staff concerning the above referenced facility. Although we were unable to attend the EIS scoping meeting, we are providing written comments summarizing SRBC regulatory involvement with the project. We ask that you include us on the Department of Energy's mailing list and that we be kept advised of the status of the EIS review process.

We understand that the Department of Energy will be providing funding for the project, which will be operated by York County Energy Partners, a subsidiary of Air Products and Chemicals Inc. of Allentown, Pa. Commission staff met with representatives of Air Products on April 20, 1992 to discuss the proposed project and explain potential SRBC regulatory involvement.

Based on the limited information available to us at this time, we believe that Commission review and approval are required under Sections 803.3 and 803.4 of the Commission's regulations and procedures for review of projects. We also believe that Section 803.61 concerning the consumptive use of water and Section 803.63 concerning conservation measures are applicable to the project. If ground water will be withdrawn to supply the project, Section 803.62 may also apply. A copy of the referenced regulations is enclosed.

Although we have not yet been advised of the source of water for the project, we understand that Air Products is considering the purchase of water from the York Water Company. Compliance with the Commission's consumptive use make-up regulation

(Section 803.61) could potentially be achieved if the project obtains water from the York Water Company and the water company maintains a minimum release at least equal to the 7-day 10-year low flow value at the stream intake. Other potential means of compliance are cited in Section 803.61(c)(1)(iv).

We appreciate the opportunity to provide comments concerning this project. If you have any questions, please contact Mr. Heicher at 717/238-0425.

Sincerely,

Paul O. Swartz
Executive Director

Enclosure

cc: U.S. Commissioner's Office, Washington, DC
Mr. John C. Allen, Air Products and Chemicals, Inc.

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

Engineering District 8-0
2140 Herr Street
Harrisburg 17103-1699
September 3, 1992

IN REPLY REFER TO

Scoping For York County
Cogeneration Facility EIS
York County

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
United States Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Morgantown, WV 26507-0880

Dear Dr. Van Ooteghem:

This follows up on a notice of intent to prepare an Environmental Impact Statement in West Manchester Township, York County, Pennsylvania.

The Pennsylvania Department of Transportation wishes to include traffic and environmental impacts and their effects on our state highway system as part of the scope of this study. Our staff is available for consultation on development of this scope.

Thank you for your attention on this important matter. If there are any questions or need to arrange a meeting, please feel free to contact Michael S. Gillespie, P.E., Planning and Programming Engineer, at 717-787-7144.

Very truly yours,

Barry G. Hoffman, P.E.
District Engineer

MSG/jls

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Habitat and Protected
Resources Division
Oxford Laboratory
Oxford, Maryland 21654

September 9, 1992

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Department of Energy
Morgantown Energy Technology Center (METC)
P.O. Box 880
Morgantown, WV. 26507-0880

Dear Dr. Van Ooteghem:

We have reviewed the Notice of Intent dated August 5, 1992, to Prepare an Environmental Impact Statement (EIS) for the proposed York County Pennsylvania Cogeneration Facility.

In an effort to clear the way for reintroduction of anadromous fish spawning migrations into the Susquehanna River system, fish passage is being addressed at dams located within the river main stem. For example, a fish lift has recently been constructed at Conowingo Dam. It is imperative that water quality be maintained within the main stem and tributaries of the Susquehanna if restoration of anadromous fish in this river system is to be successful. Consequently, we are concerned with the potential loss of wetlands and impacts on water quality resulting from this project. Therefore, we recommend that the EIS include the following information:

1. The identification of watersheds (i.e. tributary streams and associated drainage areas) that may be affected by the project.

2. Potential cumulative effects of the project on water quality and anadromous fish habitat in and adjacent to the project area.

3. Potential water quality impacts to local streams and potential anadromous fish spawning habitat associated with proposed wastewater discharges.

4. The location and areal extent, hydrology, and other descriptive features of wetlands that could be potentially affected.

5. The effects of fugitive dust to surrounding aquatic habitats.

Thank you for the opportunity to comment of this project. You may contact Mr. Richard D. Friedman at (410) 226-5771 if you have any questions.

Sincerely,

Timothy E. Goodger

Timothy E. Goodger
Asst. Coordinator

SPRING GROVE WATER COMPANY

SPRING GROVE, PENNSYLVANIA

January 29, 1993

C. Neal Carter, Ph.D.,P.E.,DEE
P. H. Glatfelter Company
228 South Main Street
Spring Grove, Pennsylvania 17362

Dear Dr. Carter:

Reference: Potable Water Service to the Environmental and Energy Project Site

The Spring Grove Water Company hereby commits to provide up to 250,000 GPD of potable water to the Environmental and Energy Project site for makeup and potable water uses (exclusive of fire protection) at a reasonable price to be established. The supply will be delivered to P. H. Glatfelter Company (PHG) from the water main located on PHG property east of PA Route 116. PHG will be responsible to see that the necessary piping is installed properly and will operate and maintain the necessary piping to extend service to the project site.

Sincerely,

R. S. Wood
Vice President

Environmental
Resources
Management, Inc.

The Conte Building
116 Defense Highway
Suite 300
Annapolis, Maryland 21401
(410) 266-0006
(410) 266-8912 (Fax)

24 February 1993
Reference: 34309.01.01

Mr. Jacob Sitlinger
Pennsylvania Game Commission
2001 Elmerton Avenue
Harrisburg, Pennsylvania 17110-9797

ERM

Dear Mr. Sitlinger:

Environmental Resources Management, Inc. (ERM) is requesting information on endangered or threatened birds or mammals protected by the Federal Endangered Species Act of 1973 or recognized by the Pennsylvania Game Commission, or habitat for these species which may be located on or adjacent to a 25-acre site in North Codorus Township, York County, Pennsylvania. I have enclosed a site vicinity map (Figure 1), and site location map (Figure 2), and NWI map (Figure 5), composed of the following USGS topographic quadrangle maps: Abbotstown, Hanover, Seven Valley, and York.

The site is just south of the southwestern border of the Borough of Spring Grove, and is bounded by railroad tracks to the northwest, the P.H. Glatfelter Company mill pond (impounded portion of Codorus Creek) and the water reservoir (Kessler Pond) to the east, Route 116 and the access road to the Glatfelter Round Wood Facility to the south, and the Round Wood Facility to the west.

Current land use on the site consists of the following:

- agricultural field in the eastern section adjacent to Route 116 and the water reservoir;
- a small stream at the eastern border of the site running along the edge of the agricultural field and draining into the water reservoir;
- a baseball field to the north of the agricultural field that is bounded by the water reservoir and the steep slopes leading down to the mill pond;
- a second agricultural field to the west of the baseball field;
- a sediment disposal area in the northwest portion of the site, adjacent to the agricultural field and bounded by the wood chipping facility and the slopes leading to the mill pond;

A member of the Environmental Resources Management Group

- a band of woodland vegetation surrounding the perimeter of the mill pond and railroad tracks, and a narrower band of vegetation surrounding the water reservoir;
- a stormwater retention pond in the northwestern corner of the site ;
- a railroad right-of-way at the northern border of the site; and
- a conveyor belt leading from the wood chipping facility to the Glatfelter facility across Codorus Creek and the mill pond.

ERM

Please feel free to contact me if you should have any questions. Thank you for your attention to this request.

Sincerely,

Sandra L. Collins

Sandra L. Collins
Project Manager

slc
enclosures: 3

Environmental
Resources
Management, Inc.

The Conte Building
116 Defense Highway
Suite 300
Annapolis, Maryland 21401
(410) 266-0006
(410) 266-8912 (Fax)

24 February 1993
Reference: 34309.01.01

Mr. Edward T. Dix
Pennsylvania Natural Diversity Inventory
Bureau of Forestry
Forest Advisory Services
PNDI Coordinator
Pennsylvania Department of Environmental Resources
P.O. Box 8552
Harrisburg, Pennsylvania 17105-8552

ERM

Dear Mr Dix:

Environmental Resources Management, Inc. (ERM) is requesting information concerning known rare, threatened or endangered plant and animal species on or adjacent to a 25-acre site in North Codorus Township, York County, Pennsylvania. I have enclosed a site vicinity map (Figure 1), and site location map (Figure 2), and NWI map (Figure 5), composed of the following USGS topographic quadrangle maps: Abbotstown, Hanover, Seven Valley, and York.

The site is just south of the southwestern border of the Borough of Spring Grove, and is bounded by railroad tracks to the northwest, the P.H. Glatfelter Company mill pond (impounded portion of Codorus Creek) and the water reservoir (Kessler Pond) to the east, Route 116 and the access road to the Glatfelter Round Wood Facility to the south, and the Round Wood Facility to the west.

Current land use on the site consists of the following:

- agricultural field in the eastern section adjacent to Route 116 and the water reservoir;
- a small stream at the eastern border of the site running along the edge of the agricultural field and draining into the water reservoir;
- a baseball field to the north of the agricultural field that is bounded by the water reservoir and the steep slopes leading down to the mill pond;
- a second agricultural field to the west of the baseball field;

- a sediment disposal area in the northwest portion of the site, adjacent to the agricultural field and bounded by the wood chipping facility and the slopes leading to the mill pond;
- a band of woodland vegetation surrounding the perimeter of the mill pond and railroad tracks, and a narrower band of vegetation surrounding the water reservoir;
- a stormwater retention pond in the northwestern corner of the site ;
- a railroad right-of-way at the northern border of the site; and
- a conveyor belt leading from the wood chipping facility to the Glatfelter facility across Codorus Creek and the mill pond.

ERM

Please feel free to contact me if you should have any questions. Thank you for your attention to this request.

Sincerely,

Sandra L. Collins

Sandra L. Collins
Project Manager

slc
enclosures: 3

Environmental
Resources
Management, Inc.

The Conte Building
116 Defense Highway
Suite 300
Annapolis, Maryland 21401
(410) 266-0006
(410) 266-8912 (Fax)

24 February 1993
Reference: 34309.01.01

Mr. Richard Snyder
Chief of Fisheries Management Division
Pennsylvania Fish Commission
450 Robinson Lane
Bellefonte, Pennsylvania 16823-9616

ERM

Dear Mr. Snyder

Environmental Resources Management, Inc. (ERM) is requesting information available concerning endangered or threatened fish, reptile, and amphibian species protected by the Federal Endangered Species Act of 1973, or recognized by the Pennsylvania Fish Commission on and adjacent to a 25-acre site in North Codorus Township, York County, Pennsylvania. I have enclosed a site vicinity map (Figure 1), and site location map (Figure 2), and NWI map (Figure 5), composed of the following USGS topographic quadrangle maps: Abbotstown, Hanover, Seven Valley, and York.

The site is just south of the southwestern border of the Borough of Spring Grove, and is bounded by railroad tracks to the northwest, the P.H. Glatfelter Company mill pond (impounded portion of Codorus Creek) and the water reservoir (Kessler Pond) to the east, Route 116 and the access road to the Glatfelter Round Wood Facility to the south, and the Round Wood Facility to the west.

Current land use on the site consists of the following:

- agricultural field in the eastern section adjacent to Route 116 and the water reservoir;
- a small stream at the eastern border of the site running along the edge of the agricultural field and draining into the water reservoir;
- a baseball field to the north of the agricultural field that is bounded by the water reservoir and the steep slopes leading down to the mill pond;
- a second agricultural field to the west of the baseball field;
- a sediment disposal area in the northwest portion of the site, adjacent to the agricultural field and bounded by the wood chipping facility and the slopes leading to the mill pond;

- a band of woodland vegetation surrounding the perimeter of the mill pond and railroad tracks, and a narrower band of vegetation surrounding the water reservoir;
- a stormwater retention pond in the northwestern corner of the site ;
- a railroad right-of-way at the northern border of the site; and
- a conveyor belt leading from the wood chipping facility to the Glatfelter facility across Codorus Creek and the mill pond.

ERM

Please feel free to contact me if you should have any questions. Thank you for your attention to this request.

Sincerely,

Sandra L. Collins

Sandra L. Collins
Project Manager

slc
enclosures: 3

Environmental
Resources
Management, Inc.

The Conte Building
116 Defense Highway
Suite 300
Annapolis, Maryland 21401
(410) 266-0006
(410) 266-8912 (Fax)

24 February 1993
Reference: 34309.01.01

Mr. Charles J. Kulp
US Fish and Wildlife Service
315 South Allen Street
Suite 322
State College, Pennsylvania 16801

ERM

Dear Mr. Kulp:

Environmental Resources Management, Inc. (ERM) is requesting information on endangered species protected by the Federal Endangered Species Act of 1973, or habitat for these species which may be located on and adjacent to a 25-acre site in North Codorus Township, York County, Pennsylvania. I have enclosed a site vicinity map (Figure 1), and site location map (Figure 2), and NWI map (Figure 5), composed of the following USGS topographic quadrangle maps: Abbotstown, Hanover, Seven Valley, and York.

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Current land use on the site consists of the following:

- agricultural field in the eastern section adjacent to Route 116 and the water reservoir;
- a small stream at the eastern border of the site running along the edge of the agricultural field and draining into the water reservoir;
- a baseball field to the north of the agricultural field that is bounded by the water reservoir and the steep slopes leading down to the mill pond;
- a second agricultural field to the west of the baseball field;
- a sediment disposal area in the northwest portion of the site, adjacent to the agricultural field and bounded by the wood chipping facility and the slopes leading to the mill pond;

- a band of woodland vegetation surrounding the perimeter of the mill pond and railroad tracks, and a narrower band of vegetation surrounding the water reservoir;
- a stormwater retention pond in the northwestern corner of the site;
- a railroad right-of-way at the northern border of the site; and
- a conveyor belt leading from the wood chipping facility to the Glatfelter facility across Codorus Creek and the mill pond.

ERM

Please feel free to contact me if you should have any questions. Thank you for your attention to this request.

Sincerely,

Sandra L. Collins

Sandra L. Collins
Project Manager

slc
enclosures: 3

Environmental
Resources
Management, Inc.

The Conte Building
116 Defense Highway
Suite 300
Annapolis, Maryland 21401
(410) 266-0006
(410) 266-8912 (Fax)

24 February 1993
Reference: 34309.01.01

Mr. Edward T. Dix
Pennsylvania Natural Diversity Inventory
Bureau of Forestry
Forest Advisory Services
PNDI Coordinator
Pennsylvania Department of Environmental Resources
P.O. Box 8552
Harrisburg, Pennsylvania 17105-8552

ERM

Dear Mr Dix:

Environmental Resources Management, Inc. (ERM) is requesting information concerning known rare, threatened or endangered plant and animal species on or adjacent to a 25-acre site in North Codorus Township, York County, Pennsylvania. I have enclosed a site vicinity map (Figure 1), and site location map (Figure 2), and NWI map (Figure 5), composed of the following USGS topographic quadrangle maps: Abbotstown, Hanover, Seven Valley, and York.

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Current land use on the site consists of the following:

- agricultural field in the eastern section adjacent to Route 116 and the water reservoir;
- a small stream at the eastern border of the site running along the edge of the agricultural field and draining into the water reservoir;
- a baseball field to the north of the agricultural field that is bounded by the water reservoir and the steep slopes leading down to the mill pond;
- a second agricultural field to the west of the baseball field;

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA FISH & BOAT COMMISSION
Division of Fisheries Management
450 Robinson Lane
Bellefonte, PA 16823-9685
(814) 359-5110

MAR 1993
RECEIVED

March 2, 1993

ENVIRONMENTAL RESOURCES MANAGEMENT, INC.
Sandra L. Collins, Project Manager
The Conte Building, Suite 300
116 Defense Highway
Annapolis, MD 21401

Dear Ms. Collins:

RE: 34309.01.01
North Codorus Township, York County, Pennsylvania

I have examined the maps accompanying your recent correspondence which show the location for the proposed above referenced project.

Presently, none of the fishes, amphibians, or reptiles we list as endangered or threatened are known to occur at or in the immediate vicinity of this study area.

Sincerely,

Clark N. Shiffer

Clark N. Shiffer
Herpetology & Endangered Species Coordinator

mam

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Suite 322
315 South Allen Street
State College, Pennsylvania 16801

March 3, 1993

Ms. Sandra L. Collins
Environmental Resources Mgmt, Inc.
The Conte Building
116 Defense Highway
Suite 300
Annapolis, MD 21401

Dear Ms. Collins:

This responds to your letter of February 24, 1993 requesting information about federally listed or proposed endangered and threatened species within the 25 acre site in North Codorus Township, York County, Pennsylvania.

Except for occasional transient species, no federally listed or proposed threatened or endangered species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the Fish and Wildlife Service. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. A compilation of federally listed endangered and threatened species in Pennsylvania is enclosed for your information.

This response relates only to endangered or threatened species under our jurisdiction based on an office review of the proposed project's location. No field inspection of the project area has been conducted by this office. Consequently, this letter is not to be construed as addressing other Service concerns under the Fish and Wildlife Coordination Act or other legislation.

Federal Candidate and State-listed Species

Candidate species are species under consideration by the Service for possible inclusion on the Federal List of Endangered and Threatened Wildlife and Plants. Because many of these species are known to have suffered population declines, the Service encourages federal agencies and other planners to consider candidate species when planning and implementing their projects.

The Pennsylvania Natural Diversity Inventory (PNDI) is maintained by the Pennsylvania Department of Environmental Resources, The Nature Conservancy and the Western Pennsylvania Conservancy. The Pennsylvania Fish and Wildlife Database is maintained by the Pennsylvania Game Commission. These databases contain the most up-to-date information about candidate and State-listed species in Pennsylvania. Requests for a PNDI review for the presence of candidate and State-listed species, as well as other natural resources of special concern, should be directed to:

Pennsylvania Department of Environmental Resources
Bureau of Forestry
Division of Forest Advisory Services
P.O. Box 8552
Harrisburg, PA 17105-8552

Requests for a review of the Pennsylvania Fish and Wildlife Database should be directed to:

Pennsylvania Game Commission
Bureau of Land Management
Division of Wildlife Data Base
2001 Elmerton Avenue
Harrisburg, PA 17110-9797

Should the data search reveal the presence of any candidate species on the site, the Service should be contacted to ensure that these species are not adversely affected by project activities.

Requests for information regarding State-listed endangered or threatened species should be directed to the Pennsylvania Game Commission (birds and mammals), the Pennsylvania Fish and Boat Commission (fish, reptiles, and amphibians), and the Pennsylvania Department of Environmental Resources (plants).

Please contact Philip Edmunds of my staff at 814-234-4090 if you have any questions or require further assistance regarding endangered, threatened, or candidate species.

Sincerely,

Edward W. Perry
Acting Supervisor

Enclosure

COMMONWEALTH OF PENNSYLVANIA

PENNSYLVANIA GAME COMMISSION

2001 ELMERTON AVENUE
HARRISBURG, PA 17110-9797

ADMINISTRATIVE BUREAUS.
ADMINISTRATION 787-5670
AUTOMOTIVE AND PROCUREMENT DIVISION . 787-6354
LICENSE DIVISION . . 787-2084
PERSONNEL DIVISION 787-7838
WILDLIFE MANAGEMENT 787-5529
INFORMATION & EDUCATION . . 787-6286
LAW ENFORCEMENT . 787-5740
LAND MANAGEMENT 787
REAL ESTATE DIVISION
MANAGEMENT INFORMATION SYSTEMS .

March 18, 1993

Ms. Sandra L. Collins
ERM, Inc.
The Conte Building
116 Defense Highway, Suite 300
Annapolis, MD 21401

In re: North Codorus Township Site
York County

Dear Ms. Collins:

This is in response to your letter of February 24, 1993, requesting information concerning endangered and threatened species of birds and mammals as related to this project.

Our office review has determined that no state listed endangered or threatened species are known to occur within the proposed project area. Except for occasional transient individuals, this project should not impact any endangered or threatened species of birds or mammals protected by the Federal Endangered Species Act of 1973 or recognized by the Pennsylvania Game Commission. However, should project plans change or if additional information on endangered or threatened species becomes available, this determination may be reconsidered.

This reply relates only to endangered and threatened species and does not address other concerns of the Pennsylvania Game Commission. If it is determined that the project may impact critical and unique wildlife habitat such as wetlands, you may be requested to conduct additional surveys.

If you have any questions, please contact Roland Bergner of my staff at (717) 783-4919.

Very truly yours,

Denver A. McDowell, Chief
Division of Environmental
Planning and Habitat Protection
Bureau of Land Management

An Equal Opportunity Employer

Environmental
Resources
Management, Inc.

The Conte Building
116 Defense Highway
Suite 300
Annapolis, Maryland 21401
(410) 266-0006
(410) 266-8912 (Fax)

21 April 1993
Reference: 34309.01.01

Mr. Kurt W. Carr
Chief of Archaeology and Protection
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
PO Box 1026
Harrisburg, Pennsylvania 17108-1026

ERM

RE: Section 106 Review Request

Dear Mr. Carr:

Environmental Resources Management, Inc. (ERM) is requesting information concerning known historic structures, sites, or archaeological resources for a site in North Codorus Township, York County, Pennsylvania. As an attachment to this letter, I have provided information concerning the proposed project, funding, and project location (Attachment 1), as well as copies of the land development plans (Attachment 2). This information should be sufficient to initiate the Section 106 Review process.

Please feel free to contact me if you should have any questions. Thank you for your attention to this request.

Sincerely,

Sandra L. Collins
Project Manager

slc
enclosures: 2
cc: R. Keating, ERM
G. Kinsey, Air Products

Environmental
Resources
Management, Inc.

The Conte Building
116 Defense Highway
Suite 300
Annapolis, Maryland 21401
(410) 266-0006
(410) 266-8912 (Fax)

23 April 1993

Mr. Gary D. Kinsey, P.E.
Environmental/Energy Division
Air Products and Chemicals, Inc.
7201 Hamilton Boulevard
Allentown, PA 18195-1501

ERM

File: 343-09-02

Re: Preliminary Soil and Ground Water Quality Results for the Glatfelter Phase 2 ESA

Dear Gary:

Environmental Resources Management, Inc. (ERM) has received the soil/sediment and ground water quality data from the laboratory for the Glatfelter Phase 2 ESA. The purpose of this letter is to transmit the preliminary results in the attached tables.

The soil samples were collected from selected intervals from the borings B-1, 2, 4, 11, 13, 15, and 39, which were installed as part of the geotechnical survey. Ground water samples were collected from the five monitoring wells installed on-site.

The soil/sediment quality data in Table 1 indicate that trace levels of the pesticide compound 4,4-DDD were found at several locations. The concentrations were detected at levels close to the method detection limit. These data indicate that the presence of 4,4-DDD in soils at depth pose no threat to human health and the environment. The presence of this compound could be due to the application agricultural chemicals to the site. The levels of metals found in the samples are indigenous to the natural soils. The soil/sediment quality results will be explained further in the draft Phase 2 ESA Report.

The ground water data in Table 2 are unremarkable. The 4-methy-2-pentanone (MIBK) is present in upgradient wells MW-1, 4, and 5 at low levels and is migrating on-site from off-site sources. The trace levels of MIBK are not a concern. Furthermore, toluene and bis (2-ethylhexyl) phthalate (BEHP) detected at below detection limit concentrations are not a concern. Note that both of these compounds are commonly artifacts of laboratory analysis. Spot detections of barium, mercury, silver, and zinc

are not a concern. All of the concentrations are below EPA Maximum Contaminant Levels and are indicative of naturally occurring concentrations. Once again, the results will be discussed further in the draft Phase 2 ESA Report.

Please call if you have any questions or comments.

ERM

Sincerely,

Bob

Robert W. Keating, P.G.
Associate

RWK/act
enclosures: (2)
cc: S. Collins

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

June 17, 1993

Nelson Rekos Jr.
United States Department of Energy
Morgantown Energy Research Center
P.O. Box 880
Morgantown, WV 26505

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

RE: ER 93-2386-133-A
North Codorus Twp., York County
U.S. Department of Energy
York County Energy Partners
Project, Cogeneration Facility

Dear Mr. Rekos:

The above named project has been reviewed by the Bureau for Historic Preservation (the State Historic Preservation Office) in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

There is a high probability that prehistoric and historic archaeological resources are located in the project area and may be affected by this project. A Phase I archaeological survey of the project area is required to locate potentially significant archaeological resources. Guidelines and information for survey are enclosed.

Historic resources are located near the project area. However, due to the nature of the activity, it is our opinion that there will be no effect on these properties. Should the applicant become aware, from any source, that unidentified historic properties are located at the project site, or that the project activities will have an effect on these properties, the Bureau for Historic Preservation should be contacted immediately.

If you need further information regarding archaeological survey please contact Dorothy Humpf at (717) 783-9900. If you need further information concerning historic structures please consult Caroline Hall at (717) 783-8946 or 783-8947.

Sincerely,

Kurt Carr, Chief
Division of Archaeology &
Protection

KC/ch
Enclosure
cc: Sandra L. Collins, Environmental Resources Management Inc. (w/ enclosure)

COMMONWEALTH OF PENNSYLVANIA

PENNSYLVANIA GAME COMMISSION

2001 ELMERTON AVENUE
HARRISBURG, PA 17110-9797

ADMINISTRATIVE BUREAUS:

ADMINISTRATION	787-5670
AUTOMOTIVE AND PROCUREMENT DIVISION	787-6594
LICENSE DIVISION	787-2084
PERSONNEL DIVISION	787-7836
WILDLIFE MANAGEMENT	787-5529
INFORMATION & EDUCATION	787-6286
LAW ENFORCEMENT	787-5740
LAND MANAGEMENT	787-6818
REAL ESTATE DIVISION	787-8568
MANAGEMENT INFORMATION SYSTEMS	787-4076

July 13, 1993

Mr. John L. Magistro
Environmental Resources Management, Inc.
2666 Riva Road, Suite 200
Annapolis, MD 21401

Dear Mr. Magistro:

In response to your request for information services, we are providing the enclosed printouts from the Pennsylvania Fish and Wildlife Data Base. This information was provided for species occurring at or near the Transmission Line Routes, York County, Pennsylvania.

We have no record of any endangered or threatened bird or mammal occurring at or near your project area. Additional comments concerning this data search are included on the following page.

The bill for this service is as follows:

Staff Time	7.50
Printing	.70
Mailing Cost	.98
TOTAL	$9.18

Please make reimbursement to the Pennsylvania Game Commission, Division of Wildlife Data Base, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

If you have any questions or require assistance interpreting this printout, please contact Ms. Bullock at (717) 787-1570.

Very truly yours,

G. J. Grabowicz

G.J. Grabowicz, Director
Bureau of Land Management

Environmental
Resources
Management, Inc.

2666 Riva Road Suite 200
Annapolis, MD 21401
410) 266-0006
(410) 266-8912 (fax)

13 July 1993
Reference: 34309.04.01

Mr. Kurt W. Carr
Chief of Archaeology and Protection
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
PO Box 1026
Harrisburg, Pennsylvania 17108-1026

ERM

RE: Section 106 Review Request

Dear Mr. Carr:

Environmental Resources Management, Inc. (ERM) is requesting information concerning known historic structures, sites, or archaeological resources for three proposed optional transmission line rights-of-way extending from the proposed cogeneration site in North Codorus Township to Metropolitan Edison's Bair or Jackson substations, York County, Pennsylvania. Only one of these routes will be selected for the proposed transmission line. As part of your analysis, please provide a separate review for each of the optional routes. As an attachment to this letter, I have provided information concerning the proposed project, funding, and project location. This information should be sufficient to initiate the Section 106 Review process.

Please feel free to contact me if you should have any questions. Thank you for your attention to this request.

Sincerely,

John L. Magistro

John L. Magistro
Project Manager

JLM:dcb
enclosures: 2
cc: R. Keating, ERM
G. Kinsey, Air Products

YORK
York County Energy Partners

York County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

July 19, 1994

Certified Mail - Return Receipt Requested

Mr. Kurt Carr
Chief of Archaeology and Protection
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
P.O. Box 1026
Harrisburg, Pennsylvania 17108-1026

RE: ER #93-2386-133
Section 106 Review Request
York County Energy Partners, L.P.

Dear Mr. Carr,

York County Energy Partners, L.P. is requesting information concerning known historical structures, sites, or archaeological resources for two sites in York County for a Section 106 review. One site is in North Codorus Township, the other in West Manchester Township. As an attachment to this letter, I have provided information concerning the proposed project, funding and location (Attachment 1), as well as engineering drawings (Attachment 2).

Please feel free to contact me if you should have any questions. Thank you for your attention to this request.

Sincerely,

Karen S. Winegardner
Environmental Engineer

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Suite 322
315 South Allen Street
State College, Pennsylvania 16801

July 21, 1993

Mr. John L. Magistro
Project Manager
Environmental Resource Management
2666 Riva Road Suite 200
Annapolis, MD 21401

Dear Mr. Magistro:

This responds to your letter of June 28, 1993 requesting information about federally listed or proposed endangered and threatened species within the area affected by the four proposed optional transmission line rights-of-way located in York County, Pennsylvania.

Except for occasional transient species, no federally listed or proposed threatened or endangered species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the Fish and Wildlife Service. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. A compilation of federally listed endangered and threatened species in Pennsylvania is enclosed for your information.

This response relates only to endangered or threatened species under our jurisdiction based on an office review of the proposed project's location. No field inspection of the project area has been conducted by this office. Consequently, this letter is not to be construed as addressing other Service concerns under the Fish and Wildlife Coordination Act or other legislation.

Federal Candidate and State-listed Species

Candidate species are species under consideration by the Service for possible inclusion on the Federal List of Endangered and Threatened Wildlife and Plants. Because many of these species are known to have suffered population declines, the Service encourages federal agencies and other planners to consider candidate species when planning and implementing their projects.

The Pennsylvania Natural Diversity Inventory (PNDI) is maintained by the Pennsylvania Department of Environmental Resources, The Nature Conservancy and the Western Pennsylvania Conservancy. The Pennsylvania Fish and Wildlife Database is maintained by the Pennsylvania Game Commission. These databases contain the most up-to-date information about candidate and State-listed species in Pennsylvania. Requests for a PNDI review for the presence of candidate and State-listed species, as well as other natural resources of special concern, should be directed to:

Pennsylvania Department of Environmental Resources
Bureau of Forestry
Division of Forest Advisory Services
400 Market Street (MSSOB), 3rd Floor
P.O. Box 8552
Harrisburg, PA 17105-8552

Requests for a review of the Pennsylvania Fish and Wildlife Database should be directed to:

Pennsylvania Game Commission
Bureau of Land Management
Division of Wildlife Data Base
2001 Elmerton Avenue
Harrisburg, PA 17110-9797

Should the data search reveal the presence of any candidate species on the site, the Service should be contacted to ensure that these species are not adversely affected by project activities.

Requests for information regarding State-listed endangered or threatened species should be directed to the Pennsylvania Game Commission (birds and mammals), the Pennsylvania Fish and Boat Commission (fish, reptiles, and amphibians), and the Pennsylvania Department of Environmental Resources (plants).

Please contact Philip Edmunds of my staff at 814-234-4090 if you have any questions or require further assistance regarding endangered, threatened, or candidate species.

Sincerely,

Edward W. Perry
Acting Supervisor

Enclosure

HRG Herbert, Rowland & Grubic, Inc.
1846 Charter Lane, Lancaster, PA 17601
FAX (717) 291-2093 (717) 291-1783

July 27, 1993

York County Commissioners
Court House
1 West Marketway
York, Pennsylvania 17401

RE: Environmental and Energy Project
NPDES Permit/Act 14 Notification
HRG Project No. 2936.014

Dear Supervisors:

On behalf of our client, York County Energy Partners, we wish to inform you that an application for a National Pollutant Discharge Elimination System (NPDES) Storm Water Permit is to be filed with the York County Conservation District. The NPDES Permits are required for all proposed or current earthmoving projects over five (5) acres. The permit is classified as an individual permit which includes activities that will disturb more than 25 acres during construction. The permit is issued by the Pennsylvania Department of Environmental Resources (PADER) and is reviewed and administered by the local conservation district.

Per Act 14, P.L. 834, enacted February 17, 1984, applicants are required to give written notice to the affected municipalities prior to filing for a Department of Environmental Resources Permit. The NPDES Permit will cover all proposed storm water discharges during construction activities for the above-referenced project.

If you have any questions regarding the NPDES Permit for this project, please feel free to contact me. Thank you for your attention to this matter.

Sincerely,

HERBERT, ROWLAND & GRUBIC, INC.

Ernest J. Graham

Ernest J. Graham, RLA

CERTIFIED MAIL

EJG/jm
2936.014

cc: York County Energy Partners
Steve McKitish, APCI

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

August 2, 1993

John L. Magistro
Environmental Resources Management, Inc.
2666 Riva Road, Suite 200
Annapolis, MD 21401

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

Re: ER 93-2386-133-B
U.S. Dept. of Energy, Three Optional Transmission Line Rights-of-Way, North Cordorus Township to Metropolitan Edison's Blair or Jackson Substations, York County

Dear Mr. Magistro:

The above named project has been reviewed by the Bureau for Historic Preservation (the State Historic Preservation Office) in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

There is a high probability that prehistoric and historic archaeological resources are located in the project area and may be affected by this project. A Phase I archaeological survey of the project area is required to locate potentially significant archaeological resources. Guidelines and information for survey are enclosed.

A preliminary review of this project indicates that there are no National Register listed historic resources in the project area. Project planners should conduct surveys to identify any eligible resources before final plans are formulated. For assistance in organizing and conducting a survey, please contact the Bureau for Historic Preservation.

If you need further information regarding archaeological survey please contact Dorothy Humpf at (717) 783-9900. If you need further information concerning historic structures please consult Susan Zacher at (717) 783-8946 or 783-8947.

Sincerely,

Kurt Carr, Chief
Division of Archaeology & Protection

KC/smz

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

Bureau of Forestry
Forest Advisory Services
P.O. Box 8552
Harrisburg, PA 17105-8552

717/787-3444

August 5, 1993

John L. Magistro, Project Manager
Environmental Resources Management, Inc.
2666 Riva Road, Suite 200
Annapolis, MD 214011

Dear Mr. Magistro:

Re: PNDI Review for the Four Proposed Optional Transmission Line Rights-of-Way Extending From the Proposed North Codorus Township Cogeneration Site to Met-Ed Bair or jackson Substations, York County, Pennsylvania.
Reference No. 34309.04.01.

Your request of June 28 to view a location within Abbottstown, Hanover, Seven Valleys, and West York Quadrangles for the presence of natural resources of special concern was processed by using the Pennsylvania Natural Diversity Inventory (PNDI) information system.- A review of PNDI in comparison with the proposed project site did not reveal any natural resources of special concern.

Be advised that legal authority for Pennsylvania's biological resources resides with three administrative agencies. The enclosure titled, PNDI Species List, outlines which species groups are managed by these agencies. Although PNDI functions solely as an information system for natural resources of concern, the Pennsylvania Game Commission maintains the Fish and Wildlife Data Base which can provide data descriptive of all mammals and birds common to Pennsylvania.

PNDI is a site specific information system which describes significant natural resources of Pennsylvania. PNDI includes data descriptive of plant and animal species of special concern, exemplary natural communities and unique geological features. The information system is a cooperative project of the Department of Environmental Resources, The Nature Conservancy and the Western Pennsylvania Conservancy. This response represents the most up-to-date summary of the PNDI data files. However, the data is not intended to be a conclusive compilation of the special concern resources at the project site. Only on-site biological surveys can provide a total assessment of the natural resources present in any specific area.

An Equal Opportunity Employer

The PNDI project is funded largely through contributions to the Wild Resource Conservation Fund. This fund was established in 1982 by the Pennsylvania Legislature to provide support for the research and conservation of significant natural resources within the Commonwealth. I trust that you will find our response to your request for site specific information to be of value to your business. Therefore, please consider making a contribution to the Fund.

Please phone this office if you should have questions pertinent to this response, PNDI or the Department of Environmental Resources plant program.

Sincerely,

Edward T. Dix, Botanist
Div. of Forest Advisory Services
Bureau of Forestry
Dept. of Environmental Resources

Enclosures

cc: Anthony Wilkinson, PNDI-East

DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MD 21203-1715

REPLY TO
ATTENTION OF

AUG 09 1993

Operations Division

Subject: CENAB-OP-RR(AIR PRODUCTS AND CHEMICALS)93-00799-7

Air Products and Chemicals, Inc.
c/o Environmental Resources Management, Inc.
Attn: Dan Synoracki
855 Springdale Drive
Exton, Pennsylvania 19341

Dear Mr. Synoracki:

I am replying to your request dated May 27, 1993, for a jurisdiction determination and verification of the delineation of Waters of the United States, including jurisdictional wetlands, on the property of Glatfelter Pulp Wood Company along Codorus Creek in North Codorus Township, south of Spring Grove, York County, Pennsylvania.

A field inspection was conducted on June 23, 1993. A copy of our report of this inspection is enclosed. This inspection indicated that the delineation of Waters of the United States, including jurisdictional wetlands, on the enclosed map is accurate. This verification is valid for three years from the date of this letter.

You are reminded that any grading or filling of Waters of the United States, including jurisdictional wetlands, is subject to Department of the Army authorization. In addition, the Interstate Land Sales Full Disclosure Act may require that prospective buyers be made aware, by the seller, of the Federal regulatory authority over any Waters of the United States, including jurisdictional wetlands, being purchased.

If you have any questions concerning this matter, please call Mr. John Gibble at (410) 962-1847.

Sincerely,

Thaddeus J. Rugiel
Acting Chief, River Basin
Permits Section

Enclosures

Field Inspection Report

SUBJECT: Air Products and Chemicals, Inc.
DATE: June 23, 1993
WITNESSED: Christine Blundell and Michael Ganser, ERM.

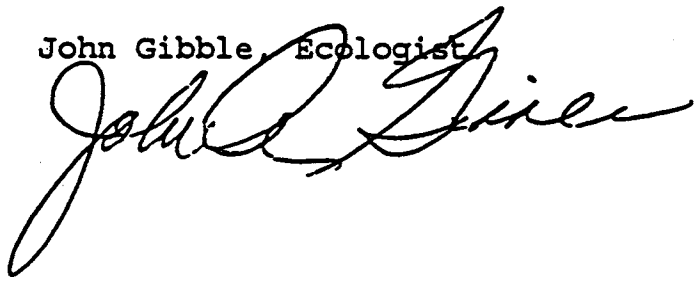
DESCRIPTION: The site is proposed for construction of an electric co-generation plant, to operate in conjunction with Glatfelter Paper Plant. The delineation, as presented on the enclosed plan, is a fair and accurate representation of existing Waters of the U.S. and jurisdictional wetlands, excepting a wetland area added and indicated on the enclosed map.

Another area, designated as a spoil disposal area, may include functional wetland areas based on soil, vegetative, and hydrologic indicators. However, based on continuing use as a spoil disposal area, jurisdiction will not be exercised over this area.

Soils were difficult to interpret in several areas, and several facultative plant communities also existing on site. However, these areas did not meet overall criteria for wetlands set forth in the 1987 manual.

If a Department of the Army permit is required for completion of this project, it is recommended that any mitigation volunteered by York Energy Partners include expansion and enhancement of an existing storm water management pond.

EVALUATOR: John Gibble, Ecologist



Environmental
Resources
Management, Inc.

855 Springdale Drive
Exton, Pennsylvania 19341
(215) 524-3500
(215) 524-7335 (Fax)

16 August 1993
Reference: 34309.03.01

Mr. Gary Kinsey
Air Products & Chemicals, Inc.
Corporate Real Estate
7201 Hamilton Boulevard
Allentown, Pennsylvania 18195-1501

ERM

Dear Gary:

On 23 June, 1993, a field inspection of the North Codorus Township Site was conducted by John Gibble of the U.S. Army Corps of Engineers (USACOE), Baltimore District. The field visit was in response to a request for a jurisdictional determination (JD) and verification of the wetland delineation conducted by ERM in April 1993. The results of the field investigation were reported in a letter dated 9 August 1993 from Thaddeus J. Rugiel, Acting Chief, River Basin Permits Section of the USACOE.

The wetland delineation study conducted by ERM was determined to be a fair and accurate representation of existing Waters of the US and jurisdictional wetlands, except for an additional small emergent wetland area (Wetland J) identified during the 23 June investigation. The following is a brief description of Wetland J. A revised copy of Plate 1 is attached which indicates the surveyed boundary of this area.

Wetland J is an 0.02 acre emergent wetland located east of Wetland C. It is approximately 70 feet long and 20 feet wide. The delineated wetland boundary was flagged in the field using pink flagging tape labeled J-1 to J-5. The dominant species in this area was soft rush (*Juncus effusus*). Additional species observed included shallow sedge (*Carex lurida*), lance-leaved goldenrod (*Euthamia graminifolia*), rough avens (*Geum virginianum*), fox sedge (*Carex vulpinoidea*), and lady's thumb (*Polygonum persicaria*).

Soil borings collected in this area exhibited a matrix color of 10 YR 5/3; however, similar to soils observed in Wetland C, the soils in Wetland J did not exhibit a matrix chroma indicative of a hydric soil. Based on the observed soils, this area was considered to be a disturbed wetland, as defined in the 1989 *Federal Manual*. According to the *Federal Manual*, disturbed areas include wetlands and nonwetlands that have been

modified by human activities such as filling, excavation, clearing, damming, and building construction, or by natural events, making wetland identification more difficult than in the absence of these activities. In disturbed wetlands, field indicators for one or more of the three technical criteria for wetland identification are usually absent.



There was no direct evidence of hydrology observed during the field investigation; however, Wetland J was situated in a depression and it appeared as though ponded water was present for some period of time.

With the addition of Wetland J, the wetland delineation presented in the May 1993 Wetland Investigation Report accurately represents the USACOE jurisdictional wetland boundaries on the North Codorus Township Site. As stated in the 9 August 1993 letter from the USACOE, the JD performed on 23 June, 1993 is valid for three years from the date of that letter.

If you have any questions regarding this matter, please feel free to call me at (215) 524-4797 or John Magistro at (410) 266-0006 .

Sincerely,

Christine Blundell

Christine Blundell
Project Scientist

cab
enclosures: Plate 1 (revised)
cc: John Magistro, ERM

Environmental and Energy Systems
Air Products and Chemicals, Inc.
7201 Hamilton Boulevard
Allentown, PA 18195-1501
Telephone (215) 481-4911

AIR PRODUCTS

17 August 1993

Mr. John Gibble
Baltimore District
U.S. Army Corps of Engineers
P.O. Box 1715
Baltimore, MD 21203-1715

Re: CENAB-OP-RR (Air Products and Chemicals, Inc.) 93-00799-7

Dear Mr. Gibble:

On June 23, 1993, you conducted a field inspection of the North Codorus Township Site owned by the P. H. Glatfelter Company. The field visit was in response to a request for a jurisdictional determination ("JD") and verification of the wetland delineation conducted by Environmental Resources Management Inc. ("ERM") in April 1993. ERM requested the JD on behalf of York County Energy Partners, L.P., a project company of Air Products and Chemicals, Inc.

Attached please find for your records an addendum to the wetland delineation report describing an additional wetland (Wetland J) identified during the 23 June investigation. This addendum contains a description of the wetland and a revised copy of Plate 1 which indicates the surveyed boundaries of all wetland areas on site.

If you have any questions concerning this submittal, please call Karen Winegardner at (215) 481-5240 or me at (215) 481-4029.

Sincerely,

Gary D. Kinsey, P.E.
Environmental Engineer

attachment

cc: K. Winegardner

Gibble/Kinsey.lhl

7201 Hamilton Boulevard
Allentown, PA 18195-1501
Telephone (215) 481-4911

August 18, 1993

Certified Mail - Return Receipt Requested

Mr. Kurt W. Carr
Chief of Archaeology and Protection
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
P.O. Box 1026
Harrisburg, Pennsylvania 17108-1026

Re: ER #93-2386-133-A

Dear Mr. Carr:

In your June 17, 1993 letter to Nelson Rekos of the Department of Energy regarding the York County Energy Partners Project, the Pennsylvania Historical and Museum Commission requested that a Phase I archaeological survey of the project area be conducted to locate potentially significant archaeological resources. York County Energy Partners, L.P. (a project company of Air Products and Chemicals, Inc.) hired Conestoga Valley Archaeological Consultants of Lancaster, PA to perform the Phase I study. Attached please find two copies of the report for the Phase I survey for the Commission's review.

York County Energy Partners would appreciate a timely review of this report, as several other permits and approvals are contingent upon this review.

If you have any questions concerning this submittal, please call Karen Winegardner at 215-481-5240 or me at 215-481-4029.

Sincerely,

Gary D. Kinsey, P.E.
Environmental Engineer

attachments: 1 copy Phase I report with original photographs
1 copy Phase I report with copied photographs

c: K. Winegardner

PhaseI/Kinsey.lhl

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
SOUTHCENTRAL REGION - FIELD OPERATIONS
One Ararat Boulevard
Harrisburg, Pennsylvania 17110
(717) 540-5012

September 2, 1993

OFFICE OF THE REGIONAL DIRECTOR

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Department of Energy
Morgantown Energy Technology Center (METC)
P.O. Box 880
Morgantown, West Virginia 26507-0880

Dear Dr. Van Ooteghem:

This is in response to your letters of August 4, 1993, to the Department of Environmental Resources relative to the proposed coal-fired cogeneration facility in North Codorus Township, York County.

The solid waste, pollution prevention and waste minimization [illegible] are significant and should be dealt with in detail in the Environmental Assessment.

Should you have any questions or require additional information, please contact our office at the above address or telephone number.

Sincerely,

Hugh V. Archer, Ph.D., P.E., DEE
Regional Director

HVA:tlh

An Equal Opportunity/Affirmative Action Employer

Recycled Paper

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA FISH & BOAT COMMISSION
Division of Fisheries Management
450 Robinson Lane
Bellefonte, PA 16823-9685
(814) 359-5110

September 2, 1993

ENVIRONMENTAL RESOURCES MANAGEMENT, INC.
John L. Magistro, Project Manager
2666 Riva Road Suite 200
Annapolis, MD 21401

Dear Mr. Magistro:

RE: No. 34309.04.01
Four Proposed, Optional Transmission Line
Rights-of-Way — North Codorus Township Cogeneration Site
North Codorus Township, York County, Pennsylvania

I have examined the map accompanying your recent correspondence which shows the location for the proposed above referenced project.

Presently, none of the fishes, amphibians, or reptiles we list as endangered or threatened are known to occur at or in the immediate vicinity of this study area.

Sincerely,

Richard A Snyder

Richard A. Snyder, Chief
Division of Fisheries Management

mam

THE CITY OF YORK, PENNSYLVANIA
Bureau of Health

50 W. KING ST. POST OFFICE BOX 509 YORK, PA. 17405
(717) 849-2252 FAX (717) 849-2329

WILLIAM J. ALTHAUS
Mayor

DAVID L. HAWK, M.D., M.P.H.
Director of Health

September 7, 1993

Suellen Van Ooteghem, Ph.D.
Environmental Protection Manager
U.S. Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Morgantown, West Virginia 26507-0880

Dear Dr. Van Ooteghem:

I am the Director of the Bureau of Health in the City of York, Pennsylvania. As the City's health officer, I am responsible for the public health of over 42,000 residents. I want to express to you my concerns about the coal-burning cogeneration facility proposed by York County Energy Partners for North Codorus Township, York County.

1. As a result of the coal burning process, certain heavy metals, including lead, will be released into the atmosphere and will sooner or later come to the ground. Adverse lead effects on young children are well described. In the City of York, nearly 50% of children screened for elevated blood lead levels in our Childhood Lead Poisoning Prevention Program have lead levels at 10ug/dl or higher. Soil samples in selected locations have also shown high concentrations of lead from a variety of sources, including atmospheric lead. Where such serious problems already exist, putting our vulnerable children at risk, additional lead release into the environment is unconscionable.

Similarly, mercury release and its bioconcentration in the food chain creates additional problems. We already have fish caught in York County streams that can't be eaten due to contamination. New mercury releases will only make this problem worse.

What heavy metals will be released? What are their amounts? What are the health effects? How will these releases contribute to the cumulative total of pollutants already in our York County environment?

2. According to York County Energy Partners and P.H. Glatfelter Co. data, sulfur dioxide levels will show a net decrease. This decrease is good, and the less SO_2 the better. On the other hand, oxides of nitrogen (NO_x) and particulate matter (PM-10) will increase because of a larger volume of coal being burned daily and these increases are bad. York already fares poorly in regard to these two pollutants (even York County Energy Partners' own health assessment report agrees). With more NO_x comes more ozone. York has been on and off the EPA's ozone list. More ozone and more PM-10 means more respiratory problems for people in York County.

3. The federal government continues to confuse me. The EPA spends millions of dollars cleaning up the environment and fines pollutors all across the nation, even in York County. Now here comes the Department of Energy spending millions of dollars to dirty up the environment. Where is the consistency in federal policy?

4. Newer and cleaner coal-burning technology exists. Coal gasification would be such an improvement over what is being proposed.

5. All of us - local, state and federal officials - should be striving for cleaner air (soil and water too). By the year 2000 our environment should be significantly cleaner than it is today. So why are we permitting more pollution to be released into the skies?

6. If the issue boils down to jobs and money versus public health, what is an acceptable price for human suffering, illness and death?

I request that the environmental assessment and impact statement by the Department of Energy address these issues.

Sincerely yours,

David L. Hawk, M.D., M.P.H.
Director of Health

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA FISH & BOAT COMMISSION
Division of Environmental Services
450 Robinson Lane
Bellefonte, PA 16823-9616
(814) 359-5147

September 20, 1993

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Morgantown, WV 26507-0880

Re: York County Cogeneration Facility
Notice of Intent to Prepare EIS

Dear Dr. Van Ooteghem:

The Pennsylvania Fish and Boat Commission has reviewed the "Notice of Intent to Prepare an Environmental Impact Statement and Conduct a Public Scoping Meeting for the Proposed York County, Pennsylvania, Cogeneration Facility" which was published in the July 29, 1993 Federal Register. The proposed 250 MW facility would be located on a 36 acre site in North Codorus Township along State Route 116. The site is situated approximately 40 miles southwest of York and adjacent to the P. H. Glatfelter Company paper mill. We have the following recommendations regarding issues which should be addressed in preparation of the Environmental Impact Statement:

1) Wastewater from the P. H. Glatfelter Company has historically degraded water quality within Codorus Creek. Furthermore, according to a July 1984 Pennsylvania Department of Environmental Resources report "... the main stem of Codorus Creek from York to the mouth is impacted by a large number of industrial waste and treated sewage discharges which have a total design flow of 105 cubic feet per second (cfs) which is 2.84 times the stream's critical low flow of 37 cfs." We understand that the proposed project will consume approximately 2.4 million gallons of water per day. How will this loss of stream flow affect downstream water quality in light of the above concerns?

2) Reductions in stream flow could also impact the physical amount of fish and other aquatic life habitat of the stream. The effect of significant changes in stream flow should be evaluated using such methodologies as the Instream Flow Incremental Methodology (IFIM) which is the state-of-the-art instream flow study methodology.

3) As required by Susquehanna River Basin Commission regulations, any consumptive water losses would have to be mitigated. What would be the source of this make-up? Additional releases from Lake Marburg could affect the fishery of the reservoir, recreational use of the reservoir, and the fishery of downstream areas which are currently stocked with trout by the PFBC. The implications of any changes in water management to each of these issues should be thoroughly evaluated.

4) Would the siting of the proposed facility have impacts to ground water, wetlands, or the flood plain of Codorus Creek?

5) How far would the coal be transported and by what means? We have historically seen the need to construct new highway facilities to accommodate excess truck traffic to coal-fired power generation stations.

6) How does the proposed facility and the P. H. Glatfelter Company fit into the Acid Deposition Control provisions of the Clean Air Act Amendments of 1990?

7) There is presently an advisory on Codorus Creek green sunfish for dioxin. Will pre-treatment handle dioxin which is a known contaminant of paper processing?

Thank you for the opportunity to comment on the EIS scope. We request the opportunity to be kept fully informed of the EIS process. Please feel free to contact me if either further information or clarification of the above comments is needed.

Sincerely,

Leroy M. Young, Fisheries Biologist
Division of Environmental Services

LMY:dms

cc: Arway, Spotts, Snyder, Kaufmann, Creyer - PFBC
Franklin, Hoffman, Schott - DER
Swartz - SRBC

United States Department of the Interior

NATIONAL PARK SERVICE
Mid-Atlantic Region
143 South Third Street
Philadelphia, PA 19106

IN REPLY REFER TO:

September 22,1993

L32 (MAR-LGC)
ER93/0649

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U. S. Department of Energy
Morgantown Energy Technology Center (METC)
P. O. Box 880
Morgantown, West Virginia 26507-0880

Dear Dr. Van Ooteghem:

The National Park Service offers the following comments on the Department of Energy Notice of Intent to prepare an EIS for a 250 MW coal-fired cogeneration facility proposed for construction and operation in York County, Pennsylvania.

The proposed facility would be built approximately 20 miles east of Gettysburg National Military Park, a Class II clean air area, and 90 miles northeast of Shenandoah National Park, a mandatory Class I clean air area. The National Park Service (NPS) is concerned about the potential adverse air pollution impacts to those units' resources (air quality related values - AQRVs) from the proposed facility.

The draft EIS should include air quality related information regarding emission control technology and mitigation measures, analyses of potential impacts on visibility and other AQRVs at Shenandoah and Gettysburg, consumption of Class I and II increments, and air quality monitoring data. We assume that York County Energy Partners will be applying for a Prevention of Significant Deterioration (PSD) air quality permit for the facility from the State of Pennsylvania. A copy of the AQD's Permit Application Guidance for new Air Pollution Sources is attached. This document describes the NPS role and responsibilities in the PSD process.

Should you have any comments please contact Erik Hauge, Environmental Specialist, Air Quality Division, Denver, Colorado (303/969-2078), or Robert Gift, Regional Environmental Coordinator, Mid-Atlantic Region, Philadelphia, Pa. (215/597-3503.

Sincerely,

Robert F. Gift
Regional Environmental Coordinator

Attachment

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Suite 322
315 South Allen Street
State College, Pennsylvania 16801

September 23, 1993

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
Morgantown Energy Technology Center
U.S. Department of Energy
P.O. Box 880
Morgantown, West Virginia 26507-0880

Dear Dr. Van Ooteghem:

The U.S. Fish and Wildlife Service has reviewed the July 29, 1993 Notice of Intent To Prepare an Environmental Impact Statement and Conduct a public scoping meeting for the proposed York County, Pennsylvania, Cogeneration Facility located adjacent to Codorus Creek and Kessler Pond, near Spring Grove, North Codorus Township. We have the following comments.

Threatened and Endangered Species

Except for occasional transient species, no other federally listed or proposed threatened or endangered species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the Fish and Wildlife Service. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. A compilation of federally listed endangered and threatened species in Pennsylvania is enclosed for your information. Requests for information regarding State-listed endangered or threatened species should be directed to the Pennsylvania Game Commission (wildlife), the Pennsylvania Fish Commission (fish, reptiles and amphibians) and the Pennsylvania Department of Environmental Resources (plants).

Fish and Wildlife Surveys and Investigations

We would like to make an on-site survey to evaluate potential adverse impacts on fish and wildlife resources within the proposed project impact area. Although we know the general location of the proposed project, it would be helpful if your office could provide us with:

1. a map of the proposed project area delineating water, wetland and upland resources scaled to two foot contours;

2. a description of proposed project features;

3. a description of how the operation of the proposed project could potentially impact fish and wildlife resources including, but not limited to, water withdrawals and discharges;

4. mitigation measures proposed to avoid, lessen or compensate for adverse impacts to fish and wildlife resources within the proposed project impact area.

After we receive the information requested above, we plan to conduct an on-site survey and will advise you of any significant concerns about potential impacts of the proposed project on fish and wildlife resources. The Service contact for this project is Mr. Hilary Zich of this office at 814-234-4090.

We also request a copy of the Draft EIS when available.

Thank you for the opportunity to comment on this proposed project at this stage of the NEPA process.

Sincerely,

Charles J. Kyle
Supervisor

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA FISH & BOAT COMMISSION
Division of Environmental Services
450 Robinson Lane
Bellefonte, PA 16823-9616
(814) 359-5147

September 29, 1993

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Morgantown, WV 26507-0880

Re: York County Cogeneration Facility
Addendum to September 20, 1993 Letter

Dear Dr. Van Ooteghem:

As a follow up to my September 20, 1993 letter concerning the "Notice of Intent to Prepare an Environmental Impact Statement" for the proposed York County Cogeneration Facility, I would like to provide some additional information on the fishery of Codorus Creek. In a recent discussion with the Pennsylvania Fish and Boat Commission Area Fisheries Manager for this area of the state, I was informed that Codorus Creek downstream of Lake Marburg is classified as a Class A wild brown trout fishery. This is the highest fisheries management classification given to trout fisheries in Pennsylvania. It is indicative of excellent reproduction and high standing crops of wild trout. This designation applies to that stretch of Codorus Creek extending from just downstream of the West Branch Codorus Creek confluence to just upstream of the P. H. Glatfelter Company paper mill. As noted under item 3 of my September 20 letter, any impacts related to development of the proposed plant on this fishery should be thoroughly examined in the scoping process.

Thank you for your consideration of these concerns.

Sincerely,

Leroy M. Young, Fisheries Biologist
Division of Environmental Services

LMY:dms

cc: Arway, Spotts, Snyder, Kaufmann, Creyer - PFBC
Franklin, Hoffman, Schott - DER
Swartz - SRBC
John Klunk

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107-4431

OCT 19 1993

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Department of Energy
Morgantown Energy Technology Center (METC)
P.O. Box 880
Morgantown, West Virginia 26507-0880

Re.: Scoping Comments on the Proposed Coal-Fired Cogeneration Facility in York County, Pennsylvania

Dear Dr. Van Ooteghem:

In accordance with the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, EPA is providing comments and an outline of topics we would like to be considered in the Environmental Impact Statement for this project.

General Comments

Review of the estimated emission reductions (e.g., 92% sulfur removal) has raised our concern that these emission reductions appear conservative when considering proven emissions reductions at other cogeneration facilities. We are providing you with several reports (see attachments) which suggest that sulfur, nitrogen dioxide, particulates, mineral matter, and heavy metal emissions could be greatly reduced through the "washing" of the coal before it is burned. By demonstrating the value of using cleaned coal in addition to demonstrating large scale circulating fluidized bed cogeneration technology, this project would go one step further in satisfying the objectives of the Department of Energy's clean coal technology program.

Specific Comments

I. Purpose and Need
   A. Assessment of current and future energy needs in the region
   B. Discussion of demand-side management (DSM)/ conservation measures that are ongoing or will be considered as part of this project

II. Alternatives Analysis
   A. No Action, i.e., not providing federal assistance for the construction of this project
   B. Alternative sites considered
   C. Description of all reasonable design and technology alternatives which could result in further avoidance of impacts, especially regarding reductions in air emissions

D. Alternative Evaluation
1. Tabulation of the social, economic, and environmental impacts for each alternative (including the no action alternative)
2. Rationale for plan selection
3. Identification of the environmentally preferable alternative and the preferred alternative

III. Affected Environment
A. Terrestrial Environment
1. Topography
2. Geology
3. Soils
4. Mineral Resources
5. Vegetation map, including acreage and dominant communities
6. Endangered and threatened species. Consultation with the Pennsylvania Game Commission's Natural Diversity Inventory Program and the U.S. Fish and Wildlife Service to identify federally and/or state listed species that may be present in the affected area
7. Ranges, abundance and harvest data for game and waterfowl species (e.g. white-tailed deer, beaver, wild turkey, etc.)

B. Aquatic Environment
1. Groundwater
a. Water quality
b. Local hydrology
c. Discharge/ recharge rates
2. Surface water
a. General description (impoundment sizes and uses, stream order, flow rate, existing and designated uses, flora, fauna)
b. Riparian areas (width, flora)
c. Water quality
3. Wetlands
a. Wetland delineation maps to identify the existing wetland boundaries in and around the project area
b. Description of vegetation, soils, and hydrology
c. Identification of wetland types, functions, and values
d. NWI, hydric soil, and floodplain maps
4. Endangered and threatened species (see III.A.6)

C. Air Quality
1. Regional monitoring data for carbon monoxide, nitrogen dioxide, ozone, lead, particulates, and sulfur dioxide
2. List of the major contributors to regional air pollution

D. Noise
    1. Current ambient noise levels

E. Solid and Hazardous Wastes
    1. Existing hazardous and solid wastes located in or around the project area
    2. Applicable solid or hazardous waste disposal requirements

F. Cultural Resources
    1. Archaeological and historic sites (consult the PA State Historic Preservation Officer)
        a. Sites on or eligible for listing on the National Register of Historic Places

IV. Environmental Consequences
A. Terrestrial Impacts
    1. Habitat losses/ conversions (acres of "x" habitat type)
    2. Biodiversity
    3. Endangered and threatened species

B. Aquatic Impacts
    1. Groundwater Impacts
        a. Water quality
        b. Hydrology
        c. Discharge/ recharge
        d. Withdrawals
    2. Surface Water Impacts
        a. Water quality- physical, chemical, and biological parameters (incorporated by reference)
        b. Maintenance of existing/designated stream uses
        c. Reservoir drawdown impacts to fisheries, recreation, other withdrawals, and downstream releases
        d. Sedimentation and erosion
        e. Encroachment on the floodplain
    3. Wetland Impacts
        a. Acres, types, functions, and values impacted
        b. Proposed mitigation plan
        c. Demonstrated compliance with the section 404 (b)(1) guidelines
    4. Endangered and threatened species impacts

C. Air Quality
    1. Estimated emissions of sulfur dioxide, carbon monoxide, nitrogen dioxide, particulates and heavy metals
    2. Estimated average opacity (a measure of how visually dirty the plume is)
    3. Effects on human health- assessed for both the average adult and child

4. Demonstrated compliance with the State Implementation Plan

D. Noise Impacts
   1. Estimated noise levels (using the Day-Night Average Sound Level (L_{dn}) measurement to assess noise impacts to the adjacent community)

E. Solid and Hazardous Waste Impacts
   1. Solid or Hazardous Waste permits required
   2. Remediation plans for existing hazardous or solid waste identified on site
   3. Fly ash disposal plans
   4. Emergency response plans

F. Cultural Resources Impacts
   1. Discussion of survey results and plans for further studies if needed
   2. Mitigation plan (if applicable)

G. Secondary/Indirect Impacts
   1. Impacts from secondary projects, e.g., electrical substations, transmission lines
   2. Changes in local zoning or land use plans
   3. Planned developments resulting from the increase in available electricity

H. Cumulative Impacts (evaluated on a regional basis and accounting for any past, present, and foreseeable future projects)

V. Mitigation measures (addressing impacts that could not be avoided through changes in technology, location, site configuration, or other avoidance measures)
   A. Avoidance measures
   B. Minimization measures
   C. Compensatory creation, restoration, enhancement
   D. Short/Long-term maintenance and monitoring programs
   E. Other mitigative measures

VI. Applicable Permits
   A. Draft state and federal permits should be referenced or appended to the EIS

This list is extensive, but it is not meant to be inclusive of all the items which should be discussed in the Environmental Impact Statement. The list is also very general. In order to provide you with more detailed comments prior to issuance of the Draft EIS, we request a detailed description of the project including emission estimates, water requirements, identified waste streams, and proposed control technology. We appreciate the opportunity to provide comments at this time. If you have

questions on EPA's comments, please contact Peter Claggett, of my staff, at 215-597-0765.

Sincerely,

Diana Esher

Diana Esher, Chief
Environmental Planning and
Assessment Section

Attachments

Clemens, M.K., Podolski, W.F., "Comparison of Costs, Emissions, and Waste Products for an 80-MW CFBC Burning Mine-Run and Washed Coals," presented at the 11th International Conference of Fluidized Bed Combustion, April 21-24, 1991

Garcia, A.B., Martinez-Tarazona, M.R., "Removal of trace elements from Spanish coals by flotation," Fuel, Vol. 72, March 1993, pp. 329-331.

DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MD 21203-1715

November 2, 1993

Planning Division

Mr. Joe Martin
U.S. Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
3610 Collins Ferry Road
Morgantown, West Virginia 26505

Dear Mr. Martin:

The purpose of this letter is to advise you concerning our investigation into the potential impacts of the proposed Coal-Fired Cogeneration Facility, Task Order #007, in York County, Pennsylvania, on a U.S. Army Corps of Engineers flood control project located within the same region. The enclosed maps of the flood control project includes the Indian Rock Dam, located approximately three miles upstream from York, Pennsylvania and channel improvements to Codorus Creek, located within the city, both of which are approximately ten miles from the proposed coal-fire cogeneration facility site.

After a discussion with a member of the Baltimore District, Operations Division, who is familiar with the Corps project, it was determined that the proposed facility will not pose any impacts to the existing flood control mission of the structures.

If you have any questions regarding this matter, please contact me or my action officer, Mr. Jack Dinne, at (410) 962-6133.

Sincerely,

Dr. James F. Johnson
Chief, Planning Division

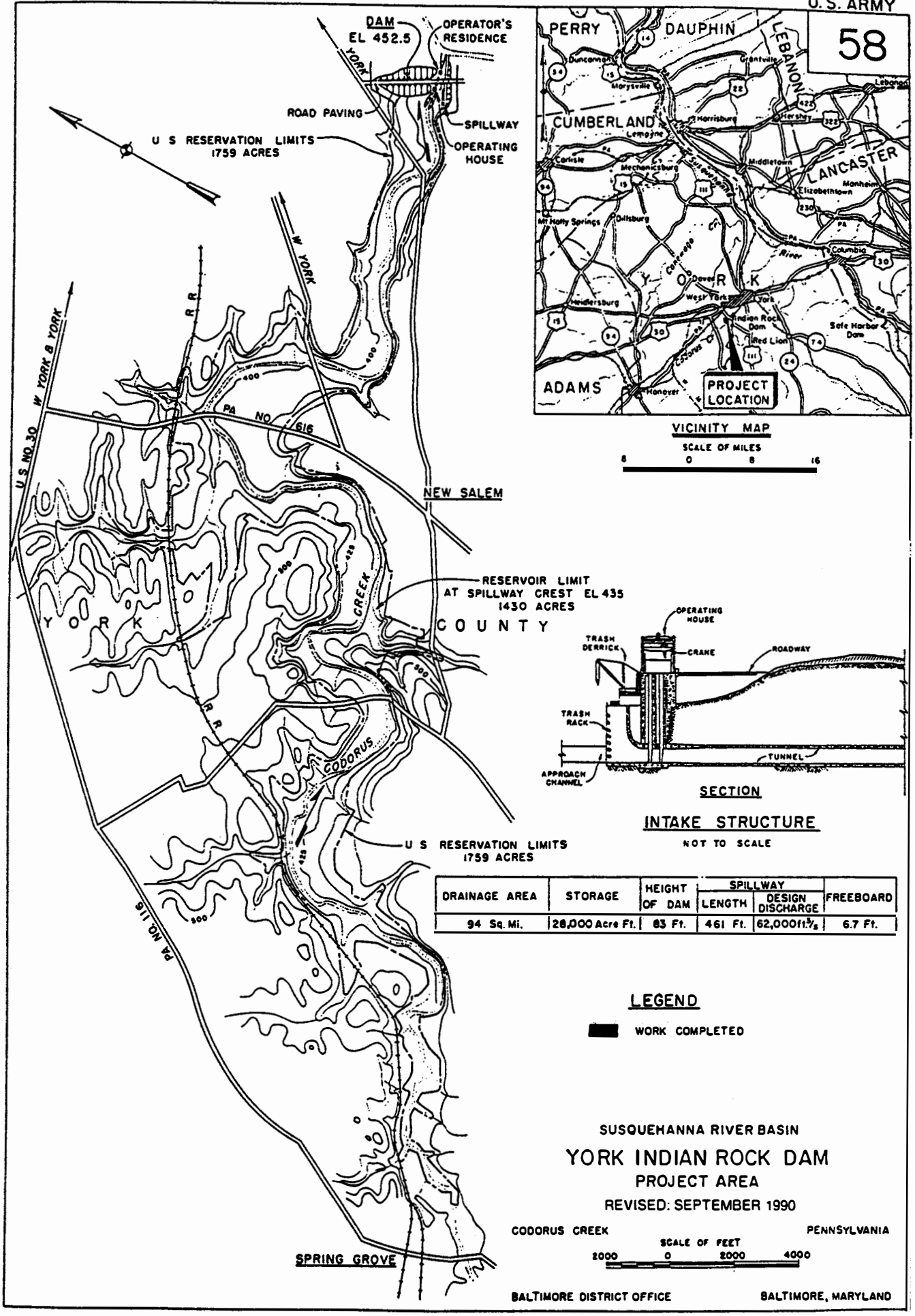
Enclosure

Copy furnished:
Dr. Suellen A. Van Ooteghem, DOE/METC
Dr. Jan Wachter, DOE/METC
Ms. Janis Markusic, Dynamac Corporation

CORPS OF ENGINEERS

U.S. ARMY

58



VICINITY MAP

SCALE OF MILES

8 0 8 16

SECTION

INTAKE STRUCTURE

NOT TO SCALE

DRAINAGE AREA	STORAGE	HEIGHT OF DAM	SPILLWAY		FREEBOARD
			LENGTH	DESIGN DISCHARGE	
94 Sq. Mi.	28,000 Acre Ft.	83 Ft.	461 Ft.	62,000 ft.³/s	6.7 Ft.

LEGEND

WORK COMPLETED

SUSQUEHANNA RIVER BASIN

YORK INDIAN ROCK DAM

PROJECT AREA

REVISED: SEPTEMBER 1990

CODORUS CREEK PENNSYLVANIA

SCALE OF FEET

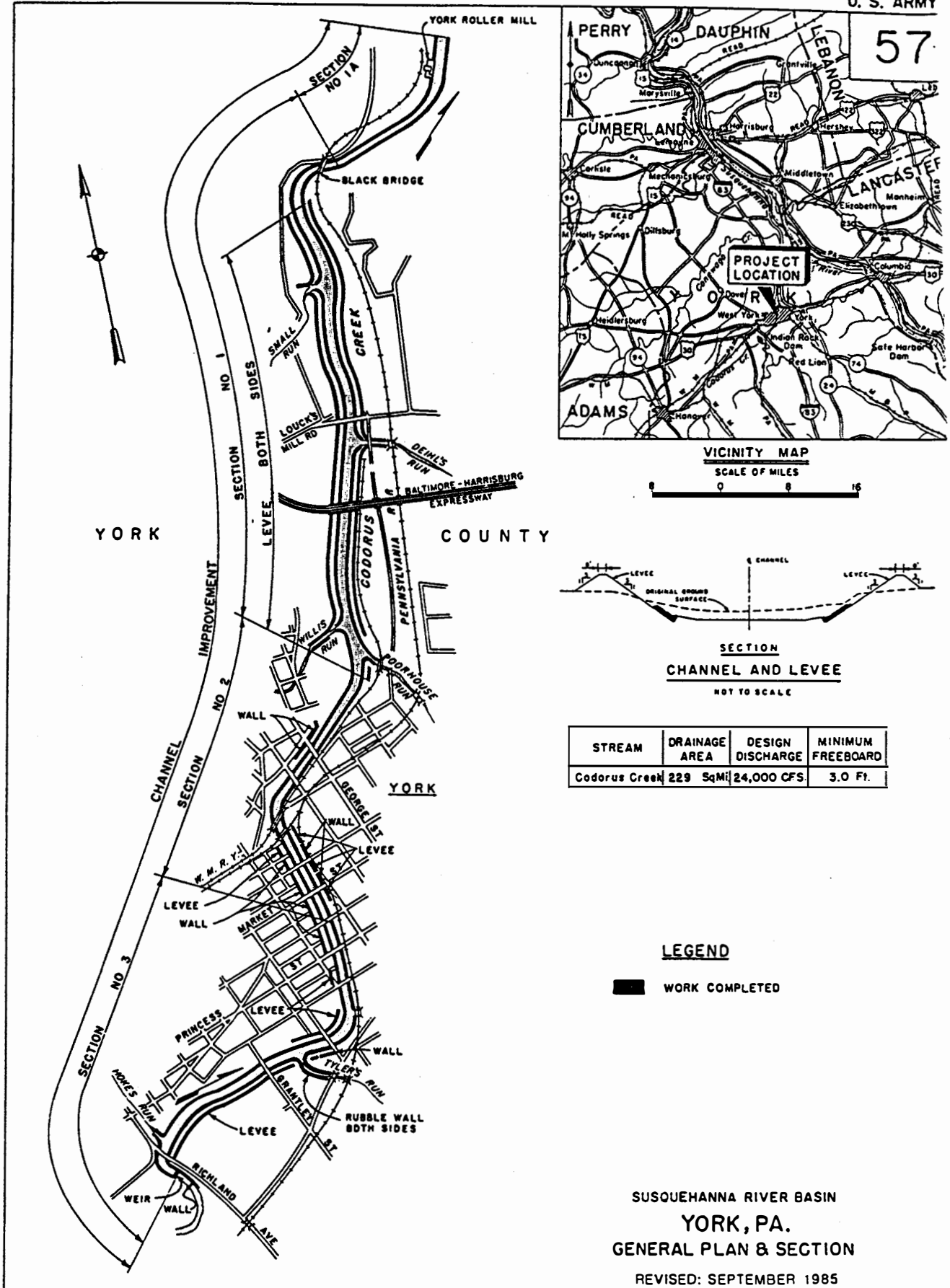
2000 0 2000 4000

BALTIMORE DISTRICT OFFICE BALTIMORE, MARYLAND

CORPS OF ENGINEERS

U. S. ARMY

57



GENERAL PLAN

SCALE OF FEET

1000 0 1000 2000

VICINITY MAP

SCALE OF MILES

8 0 8 16

SECTION

CHANNEL AND LEVEE

NOT TO SCALE

STREAM	DRAINAGE AREA	DESIGN DISCHARGE	MINIMUM FREEBOARD
Codorus Creek	229 SqMi	24,000 CFS.	3.0 Ft.

LEGEND

WORK COMPLETED

SUSQUEHANNA RIVER BASIN

YORK, PA.

GENERAL PLAN & SECTION

REVISED: SEPTEMBER 1985

CODORUS CREEK PENNSYLVANIA

SCALE: AS SHOWN

BALTIMORE DISTRICT OFFICE BALTIMORE, MARYLAND

Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

November 29, 1993

Karen Winegardner
Air Products and Chemicals Inc.
7201 Hamilton Boulevard
Allentown, PA 18195-1501

TO EXPEDITE REVIEW USE
BHP REFERENCE NUMBER

Re: ER# 93-2386-133-D
Draft Phase I Archaeological Survey
Report, CFB Tract, North Codorus
Township, York County

Dear Ms. Winegardner:

The above named project has been reviewed by the Bureau for Historic Preservation (the State Historic Preservation Office) in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

The Bureau for Historic Preservation finds the above-referenced report meets our standards and specifications. We agree with the recommendations of this report and in our opinion this project will have no effect on archaeological resources.

Please submit three additional copies of the report (two bound and one unbound) for our files. As required by state guidelines, all copies must contain original photographs.

If you need further information in this matter please consult Dorothy Humpf at (717) 783-9900.

Sincerely,

Kurt W. Carr, Chief
Division of Archaeology &
Protection

cc: Conestoga Valley Archaeological Consultants
Harold McFerrin

KWC/DAH

Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

November 29, 1993

Karen Winegardner
Air Products and Chemicals Inc.
7201 Hamilton Boulevard
Allentown, PA 18195-1501

TO EXPEDITE REVIEW USE BHP REFERENCE NUMBER

Re: ER# 93-2386-133-D
Draft Phase I Archaeological Survey Report, CFB Tract, North Codorus Township, York County

Dear Ms. Winegardner:

The above named project has been reviewed by the Bureau for Historic Preservation (the State Historic Preservation Office) in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

The Bureau for Historic Preservation finds the above-referenced report meets our standards and specifications. We agree with the recommendations of this report and in our opinion this project will have no effect on archaeological resources.

Please submit three additional copies of the report (two bound and one unbound) for our files. As required by state guidelines, all copies must contain original photographs.

If you need further information in this matter please consult Dorothy Humpf at (717) 783-9900.

Sincerely,

Kurt W. Carr, Chief
Division of Archaeology & Protection

cc: Conestoga Valley Archaeological Consultants
Harold McFerrin

KWC/DAH

Environmental and Energy Systems
Air Products and Chemicals, Inc.
7201 Hamilton Boulevard
Allentown, PA 18195-1501
Telephone (215) 481-4911

AIR PRODUCTS

16 December 1993

Certified Mail
Return Receipt Requested

Kurt W. Carr
Chief of Archaeology and Protection
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
P. O. Box 1026
Harrisburg, Pennsylvania 17108-1026

Re: ER #93-2386-133-A
Phase I Archaeological Survey Report, CFB Tract
North Codorus Township, York County

Dear Mr. Carr:

Enclosed please find three copies, (two bound and one unbound) of the final Phase I Archaeological and Geomorphological Survey Report for the above titled project, as requested in your November 29, 1993 letter.

If you have any questions concerning this submittal, please call me at 215 481-5240.

Sincerely,

Karen S. Winegardner
Environmental Engineer

enclosures

KSW:lhl

Conestoga Valley
Archaeological Consultants

CVAC

524 Saratoga Road, Lancaster, PA 17603 (717) 394-6981
FAX (717) 299-2528

December 23, 1994

Dr. Kurt Carr
Bureau for Historic Preservation
Pennsylvania Historical and Museum Commission
Box 1026
Harrisburg, PA 17108-1026

Re: ER#93-2386-113
York County Energy Partners

Dear Kurt:

This letter will provide the Bureau for Historic Preservation (BHP) with additional information relative to the proposed improvements of the intersection of Route 116/Route 516 and Lehman Road. The project area is located south of Spring Grove in North Codorus Township, York County (Fig. 1).

On December 19, Ms. Karen S. Winegardner, the environmental engineer for York County Energy Partners, L. P. (YCEP) and I reviewed this project with Dorothy Humpf during a meeting at the BHP office. Ms. Winegardner explained that the roadway improvements will be approved by the Pennsylvania Department of Transportation. However, the Department of Transportation will not become involved with any cultural-historical resource surveys since YCEP is funding and executing the improvements to the intersection. Thus the BHP has the responsibility to review any possible impacts to cultural-historical resources.

CVAC has studied the project area and I have concluded that a Phase I Survey is not required. Ms. Humpf agreed with this assessment and she recommended that these findings and conclusions be documented in a letter report format. My report follows.

Background

YCEP, a project company of Air Products and Chemicals, Inc., plans to construct, own and operate an enclosed 227 MW coal-fired cogeneration facility consisting of one circulating fluidized bed boiler (CFB) on a 36 acre tract near Spring Grove in North Codorus Township, York County. This

project is one of a number planned to be conducted pursuant to the United States Department of Energy's (DOE) Clean Coal Technology program to demonstrate different approaches and applications of clean coal technologies. The DOE is currently conducting an environmental impact statement (EIS) for this project as required under the National Environmental Policy Act.

A Phase I archaeological and geomorphological survey of this site was conducted by Kinsey and Vento (1993). No prehistoric or historic sites were found during this survey and the report has been approved by the BHP.

A second Phase I geomorphological and archaeological survey for the right-of-way for YCEP electrical interconnect was completed in October 1994 (Kinsey and Vento 1994). The right-of-way for the electrical interconnect extends from Metropolitan Edison's Bair substation to the site of the proposed 227 MW cogeneration facility. The approximately 4.5 mile-long corridor for this project is located in North Codorus, Jackson and West Manchester Townships, York County. Also included in this survey is the right-of-way for several utility waterlines. These waterlines will provide water to the cogeneration facility and carry wastewater to the P. H. Glatfelter Treatment Facility. Much of this right-of-way is situated on the flood plain of the Codorus Creek, a tributary of the Susquehanna River. The study area is located in the Conestoga Valley section of the Piedmont Physiographic Province.

The conclusions of this second study are that no cultural-historical resources will be impacted by the electrical interconnect right-of-way. This report is currently under review by the BHP.

Project Description

A traffic impact study was performed by another subcontractor as part of the local land development requirements. This study concluded that the intersection of Route 116/Route 516 and Lehman Road is currently operating at a level of service F, which is the lowest level possible. In order to bring this intersection to an acceptable level of service, the study determined that Route 116 and Lehman Road segments of the intersection would require widening to include 300 feet long left turn lanes. The intersection would also require signalization. Curbing and storm water drainage would also be constructed. Currently the Pennsylvania Department of Transportation is reviewing these plans to improve the intersection. Figure 1 is composed of portions of several USGS topographic quadrangle maps and identifies the intersection which is located within the Seven Valleys quadrangle. Figure 2 shows the engineering drawing for the proposed improvements with the affected area highlighted in color.

Archaeological Assessment

Approximately three-quarters of an acre will be impacted by the proposed improvements to the intersection of Route 116/Route 516 and Lehman Road. About 600 feet of improvements will be made along the north and south sides of Lehman Road (Figs. 2, 3 and 6). These improvements will widen the road by about ten feet. Lehman Road is bounded on the north by a meadow/pasture. This field slopes (15 degrees or greater) from the northeast to the southwest where it meets the berm of Lehman Road. The south side of Lehman Road is a poorly drained grassy meadow and flood plain. The Lehman Road improvements are restricted to the widening (no more than ten feet) of the existing disturbed berm and roadway bed. There is no potential for cultural-historical resources in this area.

On the north side of Route 116 and the 116/516 intersection is the man-made Kessler Pond (Figs. 2 and 7). Because of the disturbed nature of the area there is no potential for cultural-historical resources. On the east side of Route 116 there is the previously mentioned meadow. The narrow (10 feet) widening on this side of the road will not affect the meadow (Figs. 2 and 5). The short strip of improvement on the southeast side to Route 516 (Jefferson Road) has been previously disturbed (Figs. 2 and 4). The concrete bridge (Fig. 6) on Route 116, which dates from the 1950s, will not be affected by the roadway improvements.

A historic Georgian house dating to about 1790 is located about a quarter of a mile or more outside the project area and will not be impacted physically or visually by the proposed improvements.

Conclusions

The proposed improvements to the intersection of Routes 116/516 and Lehman Road are limited to three-quarters of an acre of previously disturbed areas. These improvements will not affect any cultural-historical resources. No additional study is required.

Sincerely,

W. Fred Kinsey, III, Ph.D.
President

cc. Karen S. Winegardner

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

One Ararat Boulevard
Harrisburg, Pennsylvania 17110
January 3, 1994

(717) 657-4587

Southcentral Regional Office

Mr. Gary D. Kinsey, P.E.
Manager, Environmental Affairs
York County Energy Partners, L.P.
7201 Hamilton Boulevard
Allentown, PA 18195

Re: PSD Application
227 MW Cogeneration Facility
North Codorus Township
York County
File No.: 67-306-007

Dear Mr. Kinsey:

By letter of December 28, 1994, you opined that any Department approval should not contain emission limits for metals. In accordance with 40 CFR 52.21, the Department is required to establish an emission limit for all pollutants identified as exceeding the significance levels of 52.21(b)(23)(i). This limit will be set based upon the Best Available Control Technology (BACT) analysis conducted by the applicant. This includes the metals beryllium (Be) and mercury (Hg). This understanding of the responsibility imposed upon the Department was confirmed by telephone discussion with personnel from EPA Region III in Philadelphia, PA.

The Department's duty is to set the limits for Be and Hg at levels which will satisfy the concerns of protecting air quality, while allowing for normal variation in fuel properties and operations. Should you wish to provide any additional information germain to the Department's task, please do so within 20 working days of your receipt of this letter. If you have any questions, please contact the undersigned at (717) 657-4587.

Sincerely,

Jeffrey J. Moyer
Air Pollution Control Engineer
Air Quality Control Program

An Equal Opportunity/Affirmative Action Employer

Recycled Paper

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
One Ararat Boulevard, Room 221
Harrisburg, PA 17110
January 9, 1994

(717) 657-4587

Southcentral Regional Office

Ms. Eileen Glenn
Air Programs Branch
US EPA, Region III
841 Chestnut Building
Philadelphia, PA 19107

RE: York County Energy Partners
PSD Application
File: 67-306-007

Dear Ms. Glenn:

The Department is requesting the opinion of EPA in a situation involving offsets under New Source Review (NSR) for the subject facility. We are considering an alternative method of meeting the offsets requirements of 25 Pa. Code 127.205.

BACKGROUND

York County Energy Partners (YCEP) has applied for an air quality permit to construct a 227 MW coal fired cogeneration facility. The facility will supply steam to P.H. Glatfelter Company and electricity to Metropolitan Edison Company. The facility is subject to PSD and NSR for NO_x emissions. YCEP identified two sources of offsets for the NO_x emissions. One of these sources is Glatfelter.

Glatfelter and YCEP have proposed a flexible emission reduction scheme, where a coal fired boiler at Glatfelter would be curtailed to provide the necessary offsets, but would be allowed to operate at any time that the YCEP facility is not operating. Pennsylvania's regulations require that offsets be obtained from state certified Emission Reduction Credits (ERC). ERC must be quantifiable, excess, permanent, and federally enforceable. The Department's position is that the proposal by YCEP and Glatfelter cannot meet the factual requirements of the regulations. However, the arrangement meets the intent of the NSR regulation by ensuring there would always be a 15% reduction in NO_x emissions.

To this end, Ms. Joyce Epps of the Office of Chief Counsel contacted you to discuss this matter. You opined that what had been proposed was possible and you sent Ms. Epps two State Implementation Plan (SIP) revisions from Virginia to review. We have reviewed the Virginia SIPs and talked to the permitting people and believe they do not set applicable precedents. The two examples were for offsets for NAAQS violations and did not require ERC. The hinge of our problem is the permanent and federally enforceable generation of ERC in the amount of 115% of the potential NO_x emissions from the proposed YCEP facility. The Department cannot issue a federally enforceable permit condition to Glatfelter to generate the ERC which would not be permanent. This is the scenario the Department is being asked to accept.

PROPOSAL

The Department believes that the only solution is and amendment to the Pa. SIP for this specific YCEP-Glatfelter arrangement specifying an alternative method of meeting the NSR offset requirements. The SIP would include the necessary mechanisms to monitor NO_x emissions and operations, compare emissions to the "before YCEP" emissions, and prevent "after YCEP" emissions from exceeding 85% of the "before YCEP" emissions. This is possible for two reasons.

1. Glatfelter will provide only 40% of the offsets.
2. The other offsets will be permanent and will not fluctuate.

Using these two facts the Department can produce conditions that will ensu e that there is always a 15% reduction in actual NO_x emissions. We believe this meets the intent of the NSR regulations.

The Department requests you evaluate this proposal for acceptability to EPA. An expeditious review would be appreciated. This issue is delaying the Department's decision on this application. If you have any questions please contact me at the telephone number at the top of this letter.

Sincerely,

Jeffrey J. Moyer
Air Pollution Control Engineer
Air Quality Program

cc: [redacted]
Ms. Joyce Epps

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
One Ararat Boulevard
Harrisburg, Pennsylvania 17110
January 12, 1994

(717) 657-4587

Southcentral Regional Office

Mr. Gary D. Kinsey, P.E.
Manager, Environmental Affairs
York County Energy Partners, L.P.
7201 Hamilton Boulevard
Allentown, PA 18195

Re: PSD Application
227 MW Cogeneration Facility
North Codorus Township
York County
File No.: 67-306-007

Dear Mr. Kinsey:

Enclosed is a copy of the letter the Department sent to the U.S. Environmental Protection Agency, Region III concerning the NO_x offsets for the York County Energy Partners (YCEP) proposed cogeneration project. I would like to clarify the second sentence of the fourth paragraph of the enclosed letter. It has been brought to my attention that Ms. Glen did not state unequivocally that the proposed emission reduction credit transaction between YCEP and the P.H. Glatfelter Company "was possible".

The SIP revisions submitted to the EPA for the facilities in Virginia were provided to the Department merely as examples of the level of detail required "in any document purporting to make emission reductions permanent and federally enforceable".

If you have any questions, please contact the undersigned at (717) 657-4587.

Sincerely,

Jeffrey J. Moyer
Air Pollution Control Engineer
Air Quality Control Program

cc: SC Region
York
EPA Region III, Ms. Eileen Glen
Joyce Epps, Office of Chief Counsel
Permits

An Equal Opportunity/Affirmative Action Employer

Recycled Paper

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
Bureau of Air Quality Control
(717)-787-4310

February 9, 1994

Mr. Louis Militana
Project Manager
ROY F. WESTON
1 Weston Way
West Chester, PA 19380-1449

RE: York County Energy Partners
North Codorus Project
Ltr of September 17, 1993

Dear Mr. Militana:

I refer to the air quality modeling protocol and monitoring exemption request for the project listed above.

This letter is to confirm the main points of conversations that we have had over the past few months.

You have proposed to use, for refined modeling, the meteorological data collected from a 70-ft tower and a Doppler SODAR system at the former West Manchester site. This site is located approximately 9 kms (5.6 miles) northeast of the proposed North Codorus site. In my professional opinion, the data collected in West Manchester Township should represent the key parameters required for air dispersion modeling at the North Cordorus site. Wind direction and wind speed at the proposed facility's stack top are required. Since topography is not a dominant influence at either site, both sites are in the same wind regime.

We note that preliminary modeling has disclosed that pre-construction monitoring for sulfur dioxide will be required. In this document you have proposed using the sulfur dioxide data collected at the West Manchester monitoring site to meet this requirement. The criteria that you have set forth meet PSD requirements. More significantly, Air Products has also established another sulfur dioxide monitoring site in Heidelberg Township on Glatfelter land west-southwest of the proposed facility. [This monitoring location is described in a Weston document dated November 1993]. This site is located close to the zone of modeled maximum 24-hour sulfur dioxide concentration. The combination of the two monitors will provide an ideal estimate of background values for the proposed modeling study.

We have already discussed the major source inventory which you included in your report. The judicious use of the North Carolina 20-D method for eliminating "insignificant impact" sources which contribute to the proposed facility significant impact area is encouraged.

You have proposed to use guideline models which account for "intermediate terrain" and also permit for "hotspot" analysis if required [CTSCREEN].

In summary, the analysis you have proposed in your protocol meets DER and EPA requirements. In addition, the use of the meteorological and ambient air quality data from the West Manchester site for the proposed facility meets guideline criteria.

Please call if you need further clarification.

Sincerely,

Robert C. Simonson
Chief, Meteorology/Modeling Section
Division of Air Resource Management

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
One Ararat Boulevard
Harrisburg, Pennsylvania 17110
May 23, 1994

(717) 657-4587

Southcentral Regional Office

Mr. Gary Kinsey
York County Energy Partners
7201 Hamilton Boulevard
Allentown, PA 18195

Re: PSD Application
227 MW Cogeneration Facility
North Codorus Township
York County
File No.: 67-306-007

Dear Mr. Kinsey:

The Department has reviewed your application update of May 12, 1994. With the addition of this information, the Department has determined the application is "complete" pursuant to the Prevention of Significant Deterioration regulations (Subchapter D of Chapter 127 of the Pennsylvania Code (25 Pa. Code 127.81-83) which incorporates by reference 40 CFR 52.21). This does not mean that the Department has determined that the application is adequate to make the final decision on the disposition of the application. A detailed technical review of the application wll be conducted and, as a result, additional information may be required.

Sincerely,

Jeffrey D. Moyer
Air Pollution Control Engineer
Air Quality Control Program

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Suite 322
315 South Allen Street
State College, Pennsylvania 16801-4850

May 27, 1994

Mr. Tom Angus
Environ
4350 North Fairfax Drive
Arlington, VA 22203

Dear Mr. Angus:

This responds to your letter of May 20, 1993 requesting information about federally listed or proposed endangered and threatened species within 10 kilometers of Spring Cove, York County, Pennsylvania.

Except for occasional transient species, no federally listed or proposed threatened or endangered species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the Fish and Wildlife Service. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. A compilation of federally listed endangered and threatened species in Pennsylvania is enclosed for your information.

This response relates only to endangered or threatened species under our jurisdiction based on an office review of the proposed project's location. No field inspection of the project area has been conducted by this office. Consequently, this letter is not to be construed as addressing other Service concerns under the Fish and Wildlife Coordination Act or other legislation.

Federal Candidate and State-listed Species

Candidate species are species under consideration by the Service for possible inclusion on the Federal List of Endangered and Threatened Wildlife and Plants. Because many of these species are known to have suffered population declines, the Service encourages federal agencies and other planners to consider candidate species when planning and implementing their projects.

The Pennsylvania Natural Diversity Inventory (PNDI) is maintained by the Pennsylvania Department of Environmental Resources, The Nature Conservancy and the Western Pennsylvania Conservancy. The Pennsylvania Fish and Wildlife Database is maintained by the Pennsylvania Game Commission. These databases contain the most up-to-date information about candidate and State-listed species in Pennsylvania. Requests for a PNDI review for the presence of candidate and State-listed species, as well as other natural resources of special concern, should be directed to:

Pennsylvania Department of Environmental Resources
Bureau of Forestry
Division of Forest Advisory Services
P.O. Box 8552
Harrisburg, PA 17105-8552

Requests for a review of the Pennsylvania Fish and Wildlife Database should be directed to:

Pennsylvania Game Commission
Bureau of Land Management
Division of Wildlife Data Base
2001 Elmerton Avenue
Harrisburg, PA 17110-9797

Should the data search reveal the presence of any candidate species on the site, the Service should be contacted to ensure that these species are not adversely affected by project activities.

Requests for information regarding State-listed endangered or threatened species should be directed to the Pennsylvania Game Commission (birds and mammals), the Pennsylvania Fish and Boat Commission (fish, reptiles, and amphibians), and the Pennsylvania Department of Environmental Resources (plants).

Please contact Philip Edmunds of my staff at 814-234-4090 if you have any questions or require further assistance regarding endangered, threatened, or candidate species.

Sincerely,

Edward W. Perry
Acting Supervisor

Enclosure

FEDERALLY LISTED SPECIES IN PENNSYLVANIA

COMMON NAME	SCIENTIFIC NAME	STATUS*	DISTRIBUTION
FISHES			
Shortnose sturgeon	*Acipenser brevirostrum*	E	Delaware River and other Atlantic coastal waters
REPTILES & AMPHIBIANS			
None			
BIRDS			
Bald eagle	*Haliaeetus leucocephalus*	E	Entire state. Recent nesting in Butler, Crawford, Dauphin, Lancaster, Pike, Tioga, York Counties
Peregrine falcon (American)	*Falco peregrinus anatum*	E	Entire state. Recent nesting in and around Philadelphia and Pittsburgh
Peregrine falcon (Arctic)	*Falco peregrinus tundrius*	T	Migratory only; no nesting in Pennsylvania
Piping plover	*Charadrius melodus*	E	Presque Isle. Migratory; no nesting in Pennsylvania since mid-1950s
MAMMALS			
Indiana bat	*Myotis sodalis*	E	Summer range: possibly state-wide in suitable habitat. Only one known winter hibernaculum (south-central Pennsylvania)
MOLLUSKS			
Clubshell mussel	*Pleurobema clava*	E	French Creek and Allegheny River watersheds; Clarion, Crawford, Erie, Forest, Mercer and Venango Counties
Northern riffleshell	*Epioblasma torulosa rangiana*	E	French Creek and Allegheny River watersheds; Crawford, Erie, Forest, Venango and Warren Counties
PLANTS			
Northeastern bulrush	*Scirpus ancistrochaetus*	E	Current - Blair, Centre, Clinton, Cumberland, Dauphin, Franklin, Huntingdon, Lackawanna, Lehigh, Monroe, and Union Counties. Historic - Northampton County
Small-whorled pogonia	*Isotria medeoloides*	E	Current - Centre and Venango Counties. Historic - Berks, Chester, Greene, Monroe, Montgomery, Philadelphia Counties

E = Endangered, T = Threatened

Shortnose sturgeon is under the jurisdiction of the National Marine Fisheries Service

PREPARED BY THE U.S. FISH AND WILDLIFE SERVICE
315 S. ALLEN ST., SUITE 322, STATE COLLEGE, PA 16801

COMMONWEALTH OF PENNSYLVANIA

PENNSYLVANIA GAME COMMISSION

2001 ELMERTON AVENUE
HARRISBURG, PA 17110-9797

ADMINISTRATIVE BUREAUS
ADMINISTRATION
AUTOMOTIVE AND PROCUREMENT DIVISION
LICENSE DIVISION
PERSONNEL DIVISION
WILDLIFE MANAGEMENT
INFORMATION & EDUCATION
LAW ENFORCEMENT
LAND MANAGEMENT
REAL ESTATE DIVISION
MANAGEMENT INFORMATION SYSTEMS

June 3, 1994

Mr. Tom Angus
ENVIRON
4350 North Fairfax Drive
Arlington VA 22203

Dear Mr. Angus:

In response to your request for information services, we are providing the enclosed printouts from the Pennsylvania Fish and Wildlife Data Base. This information was provided for species occurring at or near the Spring Grove Project, York County, Pennsylvania.

We have record of the **Least Shrew** (PA Endangered) and the **Upland Sandpiper** (PA Threatened) possibly occurring near your project area. A field survey is necessary to determine whether these species occur within you study area. Additional comments concerning this data search are included on the following page.

The bill for this service is as follows:

Staff Time	9.00
Printing	2.30
Mailing Cost	.98
TOTAL	**$12.28**

Please make reimbursement to the Pennsylvania Game Commission, Division of Wildlife Data Base, 2001 Elmerton Avenue, Harrisburg, PA 17110-9797.

If you have any questions or require assistance interpreting this printout, please contact Ms. Bullock at (717) 787-1570.

Very truly yours,

Denver A. McDowell, Chief
Division of Environmental Planning
and Habitat Protection
Bureau of Land Management

Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, West Virginia 26507-0880

June 9, 1994

Diana Esher, Chief
Environmental Planning and
Assessment Section
United States Environmental
Protection Agency, Region III
841 Chestnut Building
Philadelphia, PA 19107-4431

Dear Ms. Esher,

On October 19, 1993, you and your staff provided both general and specific scoping comments on the Proposed Coal-Fired Cogeneration Facility in York County, Pennsylvania. In addition, I believe Dr. Suellen Van Ooteghem of my staff has talked to Peter Claggett of your office regarding this project. To summarize your comments, your general comments dealt primarily with the level of estimated air emissions reduction from the proposed plant, while your specific comments provided a very useful annotated outline for developing our environmental impact statement. In your letter to Dr. Suellen Van Ooteghem, you requested additional information regarding this project, in particular, a detailed description of the project including emission estimates, water requirements, identified waste streams, and proposed control technology. Enclosed you will find two of the primary documents which are being used for development of the draft environmental impact statement.

The first document is the draft Department of Energy implementation plan which provides guidance for the preparation of the environmental impact statement for the proposed project, and which records issues identified as a result of the scoping process. The outline for the environmental impact statement contained in the implementation plan is broadly based on 40 CFR 1502.10 and was refined based on the importance of issues identified during the scoping process. However, it should be noted that the environmental impact statement being developed based on the implementation plan will be tiered from the Department of Energy's Programmatic Environmental Impact Statement for the Clean Coal Technology Program (record of decision issued in 1989). The content of some of the Environmental Protection Agency's suggested sections in your October 1993 outline, especially in the purpose and need and

alternatives analysis sections, have already been addressed in this programmatic environmental impact statement. I would appreciate your office's review and comment on our implementation plan. I intend to finalize this plan in approximately 3 weeks and then place it in the public reading rooms.

The second document is the environmental information volume consisting of three reports prepared by the industrial participant which contain specific information on emission sources and their content associated with the proposed project.

In addition to the reports listed above, a number of supplemental reports are being specially developed to address specific concerns identified during public scoping. These include a health risk assessment on trace element emissions from the proposed project; biodiversity and water resources studies on the Codorus Creek; a utility corridor impact analysis report; a detailed archeological survey, and a feasibility study for reusing wastewater in the proposed project's cooling tower. If you desire, I will pass these reports on to you for review. The delivery date to the Department of Energy for the whole set of additional reports is the first week of July.

As a test case for the Department of Energy's initiative in "reinventing government" as it applies to the National Environmental Policy Act process, the Department of Energy is on an aggressive schedule for developing the environmental impact statement for this proposed project. We are benchmarking the development and issuance of this environmental impact statement in terms of time and cost. As such, we anticipate that the draft environmental impact statement will be released to the public in September, 1994, and a record of decision issued by February, 1995.

I look forward to hearing from you or your staff with respect to the implementation plan as well as the environmental information volume. In the next few months, if time can be made available for consultation by your office, I would also like to talk with your staff on some of the more important environmental issues related to this project.

My phone number is 304/291-4607. Dr. Suellen Van Ooteghem, who is the primary environmental specialist on this project, can be reached on 304/284-5443. Thank you for time and interest related to the development of this environmental impact statement.

Sincerely,

Jan K. Wachter
Director,
Environment, Safety, and Health
Program Support Division

cc:
P. Claggett, EPA
S. Van Ooteghem
NEPA File #3911

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107-4431

Dr. Jan K. Wachter, Director
Environment, Safety and Health
Program Support Division
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, West Virginia 26507-0880

JUN 30 1994

RE: Draft Implementation Plan For The Preparation Of An Environmental Impact Statement (EIS) For The Proposed York County Energy Partners Circulating Fluidized Bed Cogeneration Project, York County, Pennsylvania.

Dear Dr. Wachter:

EPA is providing comment on the Draft Implementation Plan referenced above. EPA has reviewed the Plan and determined that it provides a thorough outline for the preparation of an EIS for this project. The following comments are provided for your consideration.

Information concerning the type of coal to be used in the facility, including the chemical constituents of the coal, pre-treatment methods, and place of origin should be included in the EIS.

The EIS section on the "irreversible and irretrievable commitments of resources" should discuss the life-span of the facility, the commitment of land resources for the construction of the facility, and the commitment of "x" amount of coal for energy production over the life-span of the facility.

EPA is currently reviewing the air pollutant emission estimates for the proposed project and will provide comment these estimates at a later date.

Thank you for the opportunity to comment on the Draft Implementation Plan for this project. If we can be of further assistance, please contact Peter Claggett at 215-597-0765.

Sincerely,

Roy E. Denmark, Jr.
NEPA/309 Coordinator

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
One Ararat Boulevard
Harrisburg, Pennsylvania 17110
July 7, 1994

(717) 657-4587

Southcentral Regional Office

Mr. Gary D. Kinsey, P.E.
Manager, Environmental Affairs
York County Energy Partners, L.P.
7201 Hamilton Boulevard
Allentown, PA 18195

Re: PSD Application
227 MW Cogeneration Facility
North Codorus Township
York County
File No.: 67-306-007

Dear Mr. Kinsey:

The Department is continuing its technical review of your application. Several questions need to be addressed for the review to continue.

The Department requests that York County Energy Partners (YCEP) assess the technical and economic feasibility of several different air pollution control options. Economic analysis is not required if technical feasibility cannot be demonstrated. It is apparent from your Best Available Control Technology (BACT) analysis that the choice of control for one pollutant has a significant impact on the technical and economic feasibility of control options for other pollutants. Specifically, the assumption of a low temperature fabric filter for particulate control significantly impacts the costs of selective catalytic reduction (SCR) for NOx control, and the assumption of limestone injection for SOx control precludes the use of flue gas denitrification (FGDN) for NOx control. Therefore, a systems approach is necessary. The following scenarios should be studied.

1. The use of hot side particulate control (fabric filter or electrostatic precipitator) and its impact on potential NOx and SOx control options.

2. The use of flue gas desulfurization (FGDS) as the primary means of SOx control and its impact on NOx and particulate control options.

3. The potential for use of the SOx-NOx-Rox-Box (SNRB™). This is an integrated control system demonstrated under the DOE Clean Coal Technology Program.

The following questions concern the Best Available Control Technology (BACT) analysis for NOx in your April 4, 1994 submission.

1. The NH_3 injection system for selective catalytic reduction (SCR) is much more costly than for selective non-catalytic reduction (SNCR), but the SNCR consumes considerably more NH_3. Please explain.

2. What is the reason for the drastic increase in power consumption with SCR compared to SNCR?

3. With the SCR option, the boiler size increases 5%, but the NOx emissions in the analysis do not increase. Is this correct? Please explain.

4. What is the basis for the catalyst life claim? Other sources for utility boilers using SCR indicate 2-4 years catalyst life.

5. On Table 4, Page 4, the SNCR Total Annualized Cost, SNCR Controlled NOx Emmissions, and Delta NOx Emissions appear to be incorrect. Please check these numbers and recalculate or explain as required.

6. What factors were used to determine the indirect operating costs in the NOx control analysis?

As previously discussed, VOC emissions increase 2 lb/hr when the facility is running at 50% load. The Department's analysis shows that facility VOC potential emissions will exceed 50 ton/yr if the boiler is run at 50% load for 1090 hours and higher loads for the remainder of the year. If potential emissions exceed 50 ton/yr, the facility will be subject to New Source Review for VOCs including lowest achievable emission rate (LAER) and offsets. The information you provided concerning your agreement with Met Ed indicates the facility could be turned down to 50% load for an indefinite period of time. Therefore, potential emissions could exceed 50 ton/yr. Will YCEP be willing to accept federally enforceable operating limits to ensure VOC potential emissions do not exceed 50 ton/yr?

The Department requests your reply to this letter be submitted within 40 working days of your receipt of this letter. If you have any questions, please contact the undersigned at (717) 657-4587.

Sincerely,

Jeffrey J. Moyer
Air Pollution Control Engineer
Air Quality Control Program

cc: Permits
Southcentral Region file
Ms. Newcomer
York District

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA FISH & BOAT COMMISSION
Division of Fisheries Management
450 Robinson Lane
Bellefonte, PA 16823-9620
(814) 359-5110

July 13, 1994

ENVIRON
Tom Angus
4350 North Fairfax Drive
Arlington, VA 22203

Dear Mr. Angus:

RE: Environmental Assessment
Spring Grove, York County, Pennsylvania

I have examined the map accompanying your recent correspondence which shows the location for the proposed above referenced project.

Presently, none of the fishes, amphibians, or reptiles we list as endangered or threatened are known to occur at or in the immediate vicinity of this study area.

However, a Pennsylvania endangered plant species branching bur reed (*Sparganium androcladum*) is known to occur in or near the project area. For more information on these species please contact Edward Dix, Botanist, Department of Environmental Resources, Bureau of Forestry, Division of Forest Advisory Services, POB 8552, Harrisburg, PA 17105-8552.

Sincerely,

Andrew L. Shiels
Herpetology, Endangered Species &
Triploid Grass Carp Coordinator

mam

c: R. Snyder
E. Dix

United States Department of Agriculture
Forest Service
Allegheny National Forest
P. O. Box 847
Warren, Pennsylvania 16365
TTY (814) 726-2710
(814) 723-5150 COM
Caring for the Land and Serving People
(814) 726-1465 FAX

Reply to: 1950

Date: July 27, 1994

Suellen A. Van Ooteghem, Ph.D.
Environment, Safety and Health
Program Support Division
Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, West Virginia 26507-0880

Dear Dr. Van Ooteghem:

I have reviewed the information you sent regarding the Clean Coal Technology Demonstration Project in York County, Pennsylvania.

Based on the information presented, I do not anticipate any effects on the Allegheny National Forest as a result of implementation of this project. It appears to be a valuable proposal to evaluate a new technolgy with impacts that have a positive rather than a negative impact on at least the local environment.

You also asked for comments regarding potential impacts or issues that should be considered in the analysis. Other than the standard issues raised by local residents for any major energy project, there needs to be an acknowledgment in the analysis that the real environmental impacts of the project are in the area that's producing the 2400 tons of coal per day needed to power the project.

There also sould be an evaluation of the potential for impacts from airborne emissions at considerable distances. There could be identifiable effects on vegetation and water quality with corollary effects on wildlife and fisheries habitat.

Good luck with the project.

Heather Harvey

HEATHER HARVEY
Ecosystems Management Team Leader

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
10099 Lincoln Way East
Fayetteville, PA 17222-9609
August 3, 1994

Bureau of Forestry

(717) 352-2211/352-2260
FAX (717) 352-3007

Suellen A. Van Ooteghem, Ph.D.
Environmental Project Manager
Department of Energy
P. O. Box 880, Collins Ferry Road
Morgantown, WV 26507-0880

Dear Ms. Van Ooteghem:

The Michaux State Forest has approximately 86,000 acres of contiguous ownership located in Franklin, Adams and Cumberland Counties. The Michaux State Forest District also includes York County where we have wildfire responsibilities. We also have a forester located there who provides technical forestry assistance to private landowners.

After reviewing your draft environmental impact statement for a coal generating plant to be located near Spring Grove, I can find nothing in the document to lead me to believe that that facility would impact the State Forest. I estimate that Spring Grove is 30+ air miles East/Southeast of the State forest.

Codorus State Park is a rather large DER facility located much closer to Spring Grove. Perhaps you would want to contact the Park Superintendent Gene Griffo, 1066 Blooming Grove Road, Codorus, PA 17331-9545 for any input he may feel is pertinent to this project.

If I can be of any additional assistance, please contact me.

Sincerely,

Kenneth D. Swartz
District Forester

KDS.pmk

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Environmental
Resources
Management, Inc.

2666 Riva Road Suite 200
Annapolis, MD 21401
410) 266-0006
(410) 266-8912 (fax)

5 August 1994
Reference: 343-09-08

SENT VIA FEDERAL EXPRESS

Mr. Gary D. Kinsey, P.E.
Environmental/Energy Division
Air Products and Chemicals, Inc.
7201 Hamilton Boulevard
Allentown, PA 18195-1501

ERM

Re: Follow-up to YCEP Environmental Site Assessment Activities

Dear Gary:

Environmental Resources Management, Inc. (ERM) has prepared this letter in response to your 2 August request. The purpose of the letter is to discuss the appropriateness of a Ground Penetrating Radar (GPR) study at the York Count Energy Partners (YCEP) project site in Spring Grove, Pennsylvania. This letter is provided as a follow-up to the environmental site assessment activities conducted by ERM at the site between 1 March and 12 May 1993 for YCEP.

ERM understands that a GPR study has been suggested to YCEP as a non-intrusive investigative method to determine the potential presence of a buried metal object at the YCEP site. ERM does not consider a GPR study of the YCEP site to be warranted given the extensive drilling program conducted by YCEP to collect geotechnical data, and the evidence gathered by ERM during site assessment activities. Our reasons to support this conclusion are discussed below.

The most compelling evidence indicating that a buried metal object is not present at the site is the results of the almost 60 borings drilled to depths of 35 feet and greater on the 36-acre site by the YCEP geotechnical subcontractor to provide geotechnical data. During hollow stem auger drilling, a hollow metal object would be easily detectable for the following reasons:

- the drill rods would drop through a hollow opening in the buried object;

- a slow grinding motion would be evident, in contrast to the smooth rotation observed during drilling of the silt and clay dredge fill and native soil at the site; and
- pieces of metal in the drill cuttings would be evident.



According to the drilling logs of the geotechnical subcontractor, these conditions were not encountered in any of the borings.

The ERM site assessment included:

- interpretation of aerial photographs from 1955, 1960, 1971, 1983, and circa 1985; and
- results of an interview with Mr. Dean L. Bentzel, a Project Engineer for P.H. Glatfelter, who supervised the placement of dredge fill from the mill pond on the property in 1980 to 1982, and was familiar with three other dredging projects of the mill pond in 1947 to 1948, mid-1950s, and 1964.

Neither of these two sources of information revealed the potential for a buried metal object to be present in the dredge fill.

The site assessment activities also included collection of soil samples for chemical analysis, and installation of monitoring wells and collection of ground water samples for chemical analysis. Information collected during drilling of the wells or soil borings did not indicate the presence of a buried metal object. Furthermore, ground water and soil quality data collected from the monitoring wells did not indicate the presence of inorganic or organic contaminants. Thus, there are no on-site sources for contamination.

In the event that evidence was generated to indicate the potential presence of a buried metal object at the site, the usefulness of GPR would be limited given the silt and clay dredge material and native soil at the site. The technical appropriateness of GPR, or any geophysical method, to determine the presence of buried metal objects, depends on the depth of penetration that can be achieved. The depth of penetration for GPR is limited in depth by attenuation of conductive soils that are moist or clayey, such as those present at the site. Effective penetration in clayey soils may be less than 10 feet, which would likely be too shallow to identify a buried object. In the event that a GPR study were to be conducted, ERM recommends that a pilot study be conducted at the site

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
P.O. Box 8551
Harrisburg, PA 17105-8551
August 19, 1994

Bureau of State Parks

Suellen A. Van Ooteghem, Ph.D.
Environmental Project Manager
Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, WV 26507-0880

Dear Dr. Ooteghem:

This is in response to your letter of July 18, 1994, regarding the Clean Cool Technology Demonstration Project to be located in North Codorus Township, York County, Pennsylvania.

We have reviewed the cogeneration plant project, as well as attended the public meetings. Staff members have also met with P.H. Glatfelter Company and have the following comments.

The Bureau of State Parks expects no effect on the recreational pool at Codorus State Park. This is based on the siting of the new intake below the metering device which P.H. Glatfelter uses to gage its minimum flow.

The project's air quality standards will have to meet Department of Environmental Resources requirements, and therefore, Codorus and Gifford Pinchot State Parks should not encounter any adverse effects to the natural resources.

We will monitor progress of this project to ensure continued consideration of potential effects on Codorus State Park and surrounding facilities. If you have any questions, please call Gregory Schrum at 717-787-6674.

Sincerely,

Roger Fickes
Director
Bureau of State Parks

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COMMONWEALTH OF PENNSYLVANIA

PENNSYLVANIA GAME COMMISSION

2001 ELMERTON AVENUE
HARRISBURG, PA 17110-9797

ADMINISTRATIVE BUREAUS:

ADMINISTRATION	717-787-5670
AUTOMOTIVE AND PROCUREMENT DIVISION	717-787-6594
LICENSE DIVISION	717-787-2084
PERSONNEL DIVISION	717-787-7836
WILDLIFE MANAGEMENT	717-787-5529
INFORMATION & EDUCATION	717-787-6286
LAW ENFORCEMENT	717-787-5740
LAND MANAGEMENT	717-787-6818
REAL ESTATE DIVISION	717-787-6568
MANAGEMENT INFORMATION SYSTEMS	717-787-4076

August 30, 1994

Mr. Carl R. Cramer
Director, Real Estate
York County Energy Partners
25 South Main Street
Spring Grove, PA 17362

In re: York County Energy Partners
Transmission Line Proposal
Indian Rock Dam Project

Dear Mr. Cramer:

At my request Mr. Roland Bergner of our Division of Environmental Planning and Habitat Protection has reviewed and provided comments on York County Energy Partners, L.P. (Y.C.E.P.) Electric Interconnection Alternatives and Avoidance Study, June 1994.

We concur with Mr. Bergner's findings and recommendations, and enclose a copy of his report for your information. We had indicated to representatives of Y.C.E.P. at a June 24, 1994 meeting, that since federal funding will be used to construct the project, an Environmental Assessment and/or Environmental Impact Statement (EA-EIS) will have to be prepared. Mr. Bergner indicates this in his report.

The National Environmental Policy Act of 1969 provides for wide-range public involvement in the decision making process. Upon completion of the EA-EIS, a public comment period is provided for review and comment by all interested parties. At this time, the Game Commission along with other state and federal agencies, will review and provide comments/recommendations on the information contained in the EA-EIS.

Mr. Bergner's report should be of assistance to you, in preparing the EA-EIS for your proposed project.

Very truly yours,

Roger L. Lehman, Chief
Federal/State Coordination Div.
Bureau of Land Management

Enclosure

United States Department of Agriculture | Forest Service | George Washington National Forest | Harrison Plaza
P.O. Box 233
Harrisonburg, VA 22801

Reply to: 2580/1950

Date: September 2, 1994

Ms. Suellen A. Van Ooteghem
Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, West Virginia 26507-0880

Dear Ms. Van Ooteghem:

Thank you for your letter of July 18, 1994 informing me of the proposed Clean Coal Technology Demonstration project under consideration by your Department. As I understand it, the Department of Energy would provide cost-shared financial assistance to York County Energy Partners, L.P. (YCEP), for a 227 megawatt single-train atmospheric circulating fluidized bed cogeneration facility.

The information you sent indicated that implementation of the project would result in an overall reduction in emissions. This assumes that P.H. Gladfelter Co. (PHG) would be the recipient of steam to power their facility, thereby allowing PHG to put a 35 year old coal-fired boiler into standby status and reduce emissions. You also indicated that further nitrogen oxide (NOx) offsets would be obtained by YCEP from sources downwind.

You asked how this project is expected to affect resources and activities on the George Washington National Forest. You may be aware that some of the mountain streams on the Forest are acidifying. Fish are sensitive to changes in water chemistry and when the pH of the water becomes more acidic, fish populations decline. On the Forest, monitoring of water chemistry, fish and aquatic insects has shown that some streams no longer have trout populations, and in other streams fish populations are under stress due to increasing acidity. In general, we are concerned about how air pollution, especially sulfur dioxide, is affecting our aquatic resources, since we feel part of our air pollution-related problems come from regional sources of pollutants.

With that concern in mind, I am very happy to see a proposal for a facility that will produce energy in a manner that results in pollutant reductions. These reductions theoretically should decrease air pollution on the Forest.

We would encourage you, however, to model how much, if any, improvement would be realized on the Forest with implementation of this proposal. We would be particularly interested in seeing if improvements occurred in the Massanutten Mountains and Little Stony Creek area of the Lee Ranger District. Both of these areas are experiencing stream acidification. With this information in hand we could better evaluate whether the proposed facility would affect forest resources.

An evaluation of reductions on the Forest could also provide information beneficial to the implementation of future clean coal technology projects. The Forest is a member of the Southern Appalachian Mountain Initiative (SAMI), a voluntary state-driven initiative which unites regulators, industry, federal land managers, and public interest groups to build consensus and support for a regional air quality management strategy for the Southeast. The mission of SAMI is "...to identify and recommend reasonable measures to remedy existing and to prevent future adverse effects from human-induced air pollution on the air quality related values of the the Southern Appalachians, primarily those of Class I park and wilderness areas, weighing the environmental and socioeconomic implications of any recommendation." Given this mission, SAMI will be evaluating a variety of emission management options; greater utilization of clean coal technologies may be among those options.

We are interested in working with the Department and the contractor in a modeling effort to show whether the reductions would affect natural resources on the George Washington National Forest. Cindy Huber, our air resource specialist, can provide receptor locations for the impact modeling. You may contact her at 703-265-6068 if you chose to do the modeling or have further technical questions.

Again, thank you for the opportunity to comment on this project.

Sincerely,

for GEORGE W. KELLEY
Forest Supervisor

cc:
Cindy Huber
John Coleman, Lee Ranger District

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
Office of Chief Counsel
P.O. Box 8464
Harrisburg, Pennsylvania 17105-8464
October 3, 1994

Telephone: (717) 787-8790
Telecopier: (717) 787-9378

Central Region Litigation

Jan K. Wachter, Ph.D., Director
Environment, Safety, and Health
Program Support and Division
Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, WV 26507-0880

RE: York County Energy Partners Cogeneration Facility

Dear Dr. Wachter:

This is in response to your letter dated August 5, 1994 requesting information related to the York County Energy Partners Cogeneration Facility in York County, PA. Your letter specifically requested information regarding the quality, validity, sufficiency and consistency of data submitted to the Department of Environmental Resources in connection with this project.

Your letter provided a lengthy list of permits that you thought would require Department of Environmental Resources review of information and data submitted by YCEP. Some of these permits have been applied for and the information reviewed; others have not yet been applied for or were not submitted by YCEP. With respect to the various air quality matters, there is only one air quality application; this application serves as the basis for our review with respect to plan approval, installation, operation and offset requirements. With respect to the application for modification of the Glatfelter boiler number four, we are not aware of any YCEP involvement in this application. We have received a planning module for the Sewage Facilities Act requirements, but that module has not yet been reviewed. Otherwise, I am not presently aware of other applications presently pending before the Department.

With respect to the air quality application which has been submitted and is currently under review, our answer to your questions is as follows:

1. The data is genuinely adequate for performance of the technical review. Some data had been found to lack proper support and have been questioned as part of the technical review.

2. The data is sufficient for the technical review. The Department has posed to YCEP questions regarding the baseline assumptions used by YCEP in analyzing various emission control regimes.

3. With respect to the consistency of the data, some data has changed other time as the application has changed from a draft, to a final submission to the final accepted submission. This sort of change is normal in a project of this type.

I apologize for the delay in getting back to you. I understand from our phone conversations, however, that issuance of the draft environmental impact statement was delayed and there was less urgency to your request for this information. Please give me a call if you need any additional information or assistance.

Sincerely,



Carl B. Schultz
Assistant Counsel

CBS:mbr

cc: Hugh Archer, Ph.D
Leif Ericson
Leon Oberdick
Francis Fair

YORK
York County Energy Partners

York County Energy Partners, L.P.™
15 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

24 October 1994

Mr. Kurt W. Carr
Chief of Archaeology and Protection
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
P.O. Box 1026
Harrisburg, PA 17108-1026

Re: ER #93-2386-133-B

Dear Mr. Carr:

The Pennsylvania Historical and Museum Commission requested a Phase I archaeological survey of the proposed electrical enterconnect right of way for the York County Energy Partners, L. P. (YCEP) project be conducted to locate potentially significant archaeological resources. YCEP (a project company of Air Products and Chemicals, Inc.) hired Conestoga Valley Archaeological Consultants of Lancaster, PA to perform the Phase I study on the preferred alternative. Attached, please find two copies of the Phase I survey report for the Commission's Review.

YCEP would appreciate a timely review of this report. If you have any questions concerning this submittal, please call me at (610) 481-5240.

Sincerely,

Karen S Winegardner

Karen S. Winegardner

attachments: 1 copy Phase I report with original photographs
1 copy Phase I report with copied photographs

KSW:\las\letter\carr.doc

AIR PRODUCTS
A project company of Air Products

YORK
York County Energy Partners

. County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

October 26, 1994

Mr. Jeffrey J. Moyer
Air Pollution Control Engineer
Pennsylvania Department of Environmental Resources
Southcentral Regional Office
One Ararat Boulevard
Harrisburg, PA 17110-9720

SUBJECT: Background Information
York County Energy Partners PSD Application
File No.: 67-306-007

Dear Mr. Moyer,

As you know, the York County Energy Partners, L.P. (YCEP) proposed project is currently undergoing an Environmental Impact Statement (EIS) review process by the U.S. Department of Energy (DOE). This review process requires the DOE to conduct a wide range of environmental analyses to assure the federal funding of the proposed project would be in accordance with the National Environmental Policy Act (NEPA) requirements.

As part of this EIS process, YCEP had prepared several supplemental reports to provide additional technical information requested by DOE to address specific areas of potential environmental impacts. The three (3) air quality related reports listed below have been submitted to DOE and are currently on file in the DOE public reading rooms in York County.

- Human Health Risk Assessment Report prepared by ENVIRON Corporation which provides the environmental analysis for trace element emissions from the CFB boiler due to the coal combustion process.

- Radionuclide Emissions Report prepared by Roy F. Weston, Inc. which provides the environmental analysis for radionuclide emissions from the CFB boiler due to the coal combustion process.

- Cooling Tower Modeling Analysis prepared by Roy F. Weston, Inc. which provides the results of the cooling tower modeling for ground level fogging and icing impacts. This report also included the cooling tower modeled as a point source to allow for a ground level ambient air quality concentration analysis.

The ambient air quality modeling results are being used by ENVIRON Corporation to conducted a human health analysis and prepared a report on the cooling tower air emissions. This type of analysis is being completed to address the potential trace element emissions from the cooling tower due to reuse of the P. H. Glatfelter waste water as cooling tower make-up water. This human health report should be available in the next few weeks and will be submitted to the DOE for release to the public reading rooms. A copy of the ENVIRON report will be provided to the Department when it is available.

These reports are being provided to the Bureau of Air Quality Control as background information in the event that the Department receives questions from the public during the EIS process.

If you have any questions or need additional information, please contact me.

Sincerely,

Gary D. Kinsey, P.E.
Manager, Environmental Affairs

Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, West Virginia 26507-0880

NOV 17 1994

RECEIVED
NOV 22 1994
PA Fish & Boat Commission
Division of Environmental Services

Mr. Leroy Young
Pennsylvania Fish and
Boat Commission
450 Robinson Lane
Bellefonte, PA 16823

Dear Mr. Young:

Enclosed is a copy of the Department of Energy's Draft Environmental Impact Statement (Draft Statement) for the proposed York County Energy Partners Cogeneration Project in York County, Pennsylvania (DOE/EIS-0221). The preparation of this document is in compliance with the Council on Environmental Quality's National Environmental Policy Act regulations (40 CFR Parts 1500-1508) and the Department of Energy's National Environmental Policy Act regulations (10 CFR Part 1021). This Draft Statement evaluates the environmental impacts of cost-shared funding of a Clean Coal Technology project that would be constructed, operated, and maintained to demonstrate the cost-effective reduction in emissions of oxides of nitrogen, sulfur dioxide, and particles from a 250-Megawatt-electric (gross) coal-fired (2,500-ton-per-day) power plant using atmospheric circulating fluidized bed (CFB) combustion technology. York County Energy Partners, the industrial participant, proposes to build the plant on a site adjacent to the P.H. Glatfelter Company's Roundwood facility in North Codorus Township, York County, Pennsylvania, approximately 6 miles southwest of York, Pennsylvania.

Copies of this Draft Statement have been mailed to members of Congress, State and local officials, interested and affected persons, organizations, and agencies, including designated libraries and public reading rooms. Written comments on this Draft Statement should be sent to Dr. Suellen Van Ooteghem, Morgantown Energy Technology Center, 3610 Collins Ferry Road, Morgantown, WV 26507-0880 (telephone: 304 285-5443) through January 10, 1995, the end of the comment period.

Sincerely,

Jan K. Wachter
Director
Environment, Safety and Health
Program Support Division

Enclosure

York County Conservation District

118 Pleasant Acres Road • York, Pennsylvania 17402 • Telephone (717) 771-9430 • Fax (717) 755-0301

November 22, 1994

MR RICHARD KENNER
YORK COUNTY ENERGY PARTNERS
25 SOUTH MAIN STREET
SPRING GROVE PA 17362

RE: ACKNOWLEDGEMENT OF RECEIPT OF COMPLETE APPLICATION
NPDES PERMIT FOR DISCHARGE OF STORM WATER FROM
CONSTRUCTION ACTIVITIES

Dear Applicant:

Your application for an NPDES Permit, site name York County Energy Partners was received on November 18, 1994 by the York County Conservation District.

The application was checked for completeness and all necessary items were found to be included. It has been assigned Permit Number PAS10Y009-1. For general permit applications, notification will be published in the Pennsylvania Bulletin. For individual permit applications, a thirty day comment period follows from the date the application is published.

The erosion and sedimentation control plan will be reviewed and studied for adequacy of protection and compliance with the Department of Environmental Resources' (DER) rules and regulations by district staff and/or by agency technical representatives cooperating with the district. The Conservation District Board of Directors and staff may discuss the results of the district review at their next meeting.

When the review of the erosion and sedimentation control plan reveals deficiencies, you will be notified by a review letter. Revised plans will be required for review before the application processing can continue. For individual NPDES Permit applications, upon approval of the erosion and sedimentation control plan, the Conservation District will forward its recommendation for permit issuance to the Soil and Waterways Section, South Central Regional Office.

For individual permit applications, you will be notified by the Field Operations Regional Office concerning other permits or approvals necessary for the proposed activity.

Inquiries regarding the status of the application should be directed to the York County Conservation District, phone (717) 771-9430.

Sincerely,

Mary Ann Shaffer
Resource Conservationist
York Co. Conservation District

cc: Ernest Graham; Herbert, Rowland & Grubic, Inc.
N. Codorus Twp.
Jackson Twp.
Spring Grove Boro
Molly Benko, DER Regional Office, Soil and Waterways Section
File

YORK
York County Energy Partners

: County Energy Partners, L.P.™
.. South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

November 23, 1994

Mr. Jeffrey J. Moyer
Air Pollution Control Engineer
Pennsylvania Department of Environmental Resources
Southcentral Regional Office
One Ararat Boulevard
Harrisburg, PA 17110-9720

SUBJECT: Additional Background Information - Cooling Tower Operation
York County Energy Partners, L.P.
PSD Application - File No. 67-306-007

Dear Mr. Moyer,

On 26 October 1994, York County Energy Partners, L.P. (YCEP) provided to the Department, as background information, several supplemental reports which were completed by YCEP as part of the Department of Energy EIS process. As explained in the earlier correspondence, YCEP was awaiting completion of the human health assessment report for the cooling tower operation.

Please find attached a copy of the report prepared by ENVIRON Corporation entitled "Human Health Risk Assessment of Cooling Tower Emissions Associated With Operation of the York County Energy Partners Cogeneration Facility". This report was completed to address the potential trace element emissions from the cooling tower due to the reuse of the P. H. Glatfelter waste water as cooling tower make-up water. Please also find attached the following background information:

- Exhibit 1: Estimated emissions from the use of P. H. Glatfelter's waste water in cooling towers.
- Exhibit 2: Protocol for chemical analysis of secondary effluent and cooling tower blowdown streams.

These two exhibits contain the background information on the cooling tower analysis which was previously submitted to the Bureau of Air Quality on 4 April 1994. This information is being provided again for reference in order to include all the cooling tower information with the human health assessment report.

The trace element emissions from the cooling tower were addressed within the regulatory guidelines established by EPA under section 112 of the Clean Air Act (CAA)

which addresses the national emission standards for hazardous air pollutants (HAP's). On Friday, 17 December 1993, EPA issued proposed rules in the Federal Register which provided information on the following:

- Effluent Limitations Guidelines, Pretreatment Standards, and New Source Performance Standards: Pulp, Paper, and Paperboard Category (40 CFR Part 430). Under Subpart B, these proposed rules provide BPT effluent limitations (end-of-pipe) for the polllutants or pollutant properties for BODs, TSS, AOX, COD and Color.

- National Emission Standards for Hazardous Air Pollutants for Source Category: Pulp and Paper Production (40 CFR Part 63). Under Subpart S, these proposed rules provide guidance for the applicablility of HAP's under section 112 of the CAA.

In the Preamble for the proposed rules, Section IV.B - Summary and Scope of the Proposed Regulations, National Emissions Standards for Hazardous Air Pollutants states that .. *"hazardous air pollutant emissions from the pulp and paper production source category are being regulated under section 112(d) of the CAA. The proposed standards would regulate emissions of any and all of the 189 HAP's listed under section 112(b) of the CAA."* No other pollutants have been proposed for review under this source category.

The water quality analysis work completed by YCEP and the human health assessment report completed by ENVIRON Corporation would meet the requirements of this proposed regulation. Please note this is currently proposed regulations and no firm timetable has been established to promulgate these rules from proposed to final regulations. The type of analysis conducted for the YCEP cooling tower is not required by federal or state regulations and there are no permitting requirements for this type of operation. The results of the cooling tower analysis did show that the cooling tower operation would meet the requirements of section 112 of the CAA.

Please review this information. If you have any questions or need additional information, please contact me.

Sincerely,

Gary D. Kinsey, P.E.
Manager, Environmental Affairs

cc: Paul Yarnell, PA DER Bureau of Water Quality

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
10099 Lincoln Way East
Fayetteville, PA 17222-9609
December 7, 1994

Bureau of Forestry

(717) 352-2211/352-2260
FAX (717) 352-3007

Mr. Jan K. Wachter, Director
Environment, Safety and Health
Program Support Division
Morgantown Energy Technology Center
P.O. Box 880
Morgantown, WV 26507-0880

Dear Mr. Wachter:

It is now clear that the proposed York County Energy Partners Cogeneration Project is not in my area of responsibility. Therefore, you may drop my name from your mailing list. Thank you for your cooperation in this matter.

Sincerely,

Kenneth D. Swartz
District Forester
Forest District 1

KDS:jac

An Equal Opportunity/Affirmative Action Employer

Environmental and Energy Systems
Air Products and Chemicals, Inc.
7201 Hamilton Boulevard
Allentown, PA 18195-1501
Telephone (610) 481-4911

AIR PRODUCTS

December 13, 1994

Mr. Jeffrey J. Moyer
Air Pollution Control Engineer
Pennsylvania Department of Environmental Resources
Southcentral Regional Office
One Ararat Boulevard
Harrisburg, PA 17110-9720

SUBJECT: Background and Technical Information
Four Rivers Energy Modernization Project
Calvert City, Kentucky

Dear Mr. Moyer,

As we discussed on Monday, 12 December, Four Rivers Energy Partners, L.P., a project company of Air Products and Chemicals, Inc. (Air Products) is currently developing a coal-fired cogeneration project which would be located at the Air Products chemical manufacturing facility in Calvert City, Kentucky. This project, Four Rivers Energy Modernization Project, was selected for funding under the Department of Energy Clean Coal Technology (CCT) Demonstration Program Round Five Solicitation. The proposed project is to demonstrated a coal-fired Second Generation Pressurized Circulating Fluidized Bed (PCFB) cogeneration application. The PCFB technology is a next generation coal combustion technology which is expected to have a higher combustion efficiency due to the pressurized combustion process. The proposed facility would provide industrial steam to the chemical manufacturing facility and approximately 70 MW of electrical power to the local electric utility.

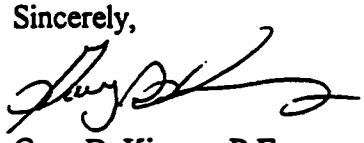
The Four Rivers project is currently in the technical development stages and undergoing the Department of Energy environmental review process. The air quality permit application should be filed in the first half of 1995 and the facility is scheduled for full-scale operation by the year 2000. The preliminary air emissions technical information for the Four Rivers project along with the proposed air emissions from the York County Energy Partners, L.P. atmospheric CFB project is provided below.

	Four Rivers Project	York County Project
Boiler Firing Duty, mmbtu/hr	842.0	2624.0
Coal Feed Sulfur Content, %	3.5	2.0
Emissions Rate:		
Sulfur Dioxide		
% removal	95.0	92.0
lbs/hr	252.0	660.0
lbs/mmbtu	0.30	0.25
Nitrogen Oxides		
lbs/hr	252.0	328.0
lbs/mmbtu	0.3	0.125
Particulate Matter (PM-10)		
lbs/hr	10.0	29.0
lbs/mmbtu	0.012	0.011
Carbon Monoxide		
lbs/hr	80.0	394.0
lbs/mmbtu	0.095	0.15

As shown above, the carbon monoxide emission rate on a lbs/mmbtu basis is lower for the PCFB boiler than the CFB boiler. This lower carbon monoxide emission rate is due to the improved combustion efficiency resulting from the pressurized combustion process.

If you have any questions, please contact me.

Sincerely,



Gary D. Kinsey, P.E.
Lead Environmental Engineer

P. H. GLATFELTER COMPANY

CORPORATE HEADQUARTERS / SPRING GROVE, PA 17362-0500 / (717) 225-4711

December 15, 1993

Mr. Richard C. Kenner, Jr.
Vice President and General Manager
York County Energy Partners
Air Products and Chemicals, Inc.
7201 Hamilton Boulevard
Allentown, PA 18195-1501

Dear Rick:

Recently, it has come to the P. H. Glatfelter Company's attention that certain individuals have suggested to governmental agencies that Glatfelter, prior to the commencement of the discussions with Air Products on the present co-generation project, had plans to shut down or significantly modify its #4 power boiler. Any such statement to that effect is absolutely false. I can state, without qualification, that there were no plans extant at that time to shut down the #4 boiler nor were there any major modifications to #4 boiler in our five-year capital forecast which comprises our long-range strategic plan for capital expenditures.

Furthermore, I would underline the fact that we have relatively recently completed the installation of our #5 circulating fluidized bed power boiler at which time we shut down our #3 power boiler so that it is available for standby purposes only. Presently, we are starting to bring on line our new #3 recovery boiler which will result in the shut down of #1 and #2 recovery boilers. As a result of all these changes, we had very carefully considered our long-range steam requirements and #4 boiler was definitely part of our plans in meeting those requirements. I would further note that we know of no reason from a regulatory standpoint to shut down #4 power boiler.

As you are aware, a power boiler has an exceedingly long useful life when it is well maintained. Should the York County Energy Partners project fail to move forward, I can assure you that we would continue to operate the #4 power boiler for many years into the future. Anyone suggesting that this is not the case is simply being dishonest.

Sincerely,

R. W. Wand
Vice President - Administration

RWW/clg

cc: R. E. Callahan
C. L. Wissimer

YORK
York County Energy Partners

k County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

December 16, 1994

Mr. Jeffrey J. Moyer
Air Pollution Control Engineer
Pennsylvania Department of Environmental Resources
Southcentral Regional Office
One Ararat Boulevard
Harrisburg, PA 17110-9720

SUBJECT: PSD Air Quality Permit Application File No.
York County Energy Partners, L.P.
North Codorus Township, York County, PA

Dear Mr. Moyer:

As we discussed earlier, I understand that the Department is considering the inclusion of special conditions in the above-referenced draft PSD Plan Approval document to address (1) the NOx emission rate with respect to operation of the Selective Non-Catalytic Reduction (SNCR) system and (2) various metal emission rates as a result of coal combustion. Please consider the following information when developing these two proposed special conditions.

NOx Emission Rate/SNCR System Operation Special Condition:

York County Energy Partners, L.P. (YCEP) agrees that a complete understanding of the technical relationship between NOx emission rate and operation of the SNCR system requires further evaluation during full-scale operation of the CFB unit. This further evaluation is consistent with analyses to be performed during the shake-down under the applicable permit process. Specifically, as you know, since the proposed facility would be

located in the Northeast Ozone Transport Region (NOTR), the unit would be required to complete a LAER test for establishing the specific NOx emission limits to be incorporated into the Operating Permit.

As YCEP has outlined in earlier correspondence to the Department, the actual volume of aqueous ammonia used in the SNCR system and subsequent NOx emission control will depend on several operational variables. Several key factors such as the fuel characteristics, SNCR operating characteristics, and ammonia slip level have a direct effect on the NOx emission level and the potential to produce any visible plume from the facility stack. In order to establish these technical and operation relationships, YCEP agrees that a one year optimization program conducted during the first year of operation would provide the appropriate opportunity for establishing the NOx emission limits for inclusion in the Operating Permit.

In consideration of this optimization period and its relevance for establishing appropriate NOx emission limits for the Operating Permit, YCEP requests that the draft PSD Plan Approval and Temporary Operating Permit include the NOx emission rate requested in the YCEP PSD permit application. As stated earlier, the SNCR system is expected to achieve this NOx emission rate based on the currently available technical data.

YCEP also requests that the special condition take into consideration that the proposed facility would be obtaining NOx Emission Reduction Credits (ERCs) based upon the allowable NOx emission rate established in the PSD Plan Approval. At the conclusion of the one year optimization program if the results of emission testing support a reduction in the allowable NOx emission rate, the Department may of course exercise its discretion and decide to lower the permitted NOx emission rate. In this event, YCEP requests that the Department include specific language within the permit which would automatically trigger an increase in the allowable NOx emission rate, up to the original permit level, in the event that typical variation in facility operation characteristics cause a visible plume from the stack. Since YCEP would have obtained the ERCs based upon the original permitted level, no additional ERCs would be required. This specific request is made based on operating experience at another facility where a slight change in fuel characteristics resulted in the visible plume.

Metal Emission Rate Special Condition:

The expected metal emission rate information provided in the PSD permit application is based on the use of western Pennsylvania coal supplied from the Pittsburgh coal seam. Metal emissions would be associated with particulate matter (PM-10) exiting in the facility stack flue gas. Due to natural variability in the coal characteristics, the metal composition in the particulate matter would be expected to be variable in addition to being uncontrolled by the CFB operation.

The 1990 Clean Air Act Amendments specifically exempt electric utility-type facilities from Section 112 Hazardous Air Pollutants (HAPs) review, pending release of a technical study being conducted by EPA. Various metals are included on the HAPs list. With respect to these metals, no emission limit should be included with the PSD Plan Approval pending publication of the EPA study.

In addition, as part of the Department of Energy environmental review of the potential project impacts, YCEP completed a review of trace element emissions from the proposed facility. The Human Health study completed by ENVIRON Corporation (a copy was previously provided to the Department for information purposes) showed no adverse health impacts due to stack trace element emissions based on "typical" Pittsburgh coal seam analysis. This analysis supports postponement of the inclusion of any trace metals emission limits in the facility's air emissions permit.

YCEP proposes to test and report various trace element emissions as a component of stack testing conducted during the yearly performance test for the other permitted emission levels. This testing and reporting should occur for the first two years of operation. At the end of this two year period, the emission data would be evaluated by the Department. If metal emission data provides significant information, the Department may exercise its discretion and require the yearly testing and reporting to continue. Emission data could be collected for those metals which are representative of trace elements present in coal. A proposed list of trace elements to be tested for would be arsenic, beryllium, total chromium, fluoride, mercury, and lead.

In consideration of the natural variability in coal characteristics, establishing specific permitted emission rates for these various trace elements would be inappropriate, and as explained above, neither justified by any facility-specific potential health concerns nor

required under any applicable regulatory standard. Given the variability in trace element content typical of coal, it is possible that the facility's performance test would show compliance for overall particulate matter emission levels, but would periodically show non-compliance due to a slight variation in one of the metal parameters due to natural coal content variations if specific trace element limits are included within the PSD Plan Approval.

At the present time, there are no applicable state or federal regulatory standards requiring the incorporation of PSD permit limits for trace elements. YCEP would request that no specific emission limits be imposed until EPA completes the electric utility study for the Section 112 HAPs and develops emissions standards for coal-fired facilities.

YCEP appreciates your consideration of this information as the Department works to complete the draft PSD Plan Approval for the YCEP facility. If you have any questions or need additional information, please contact me.

Sincerely,

Gary D. Kinsey, P.E.
Manager, Environmental Affairs

COMMONWEALTH OF PENNSYLVANIA
December 21, 1994

SUBJECT: York County Energy Partners, L.P.
Consumptive Use Application
Codorus Creek

TO: Paul Swartz, Executive Director
Susquehanna River Basin Commission

FROM: Leroy M. Young, Fisheries Biologist
Division of Environmental Services
Pennsylvania Fish and Boat Commission

The Pennsylvania Fish and Boat Commission has reviewed the subject permit application for the consumptive use of up to 2.8 million gallons per day (mgd) of the treated wastewater from the P. H. Glatfelter facility by the York County Energy Partners (YCEP) proposed cogeneration plant. We have the following comments regarding this application.

1. The consumptive water losses related to the YCEP proposal have the potential to improve water quality downstream of the Glatfelter facility by removing wastewater load from the stream. While these improvements are welcome, it would seem that the best approach to protecting water quality in Codorus Creek would be to properly treat the discharge. Information such as that provided in the most recent (1992) fisheries data compiled by Dr. Denoncourt show depressed fauna downstream of the Glatfelter discharge with IBI values in the "poor" to "fair" range (See Table 1 of November 1992 Report, Appendix D). We note that the proposed wastewater effluent flow of 9.7 mgd exceeds the SRBC required stream flow upstream of the discharge by a factor of 2. Without the YCEP withdrawal, wastewater flow exceeds permitted stream flow by a factor of 2.5. Improvements of the water quality and protection of the aquatic life should be thoroughly reevaluated through the NPDES permitting process. We are currently discussing this issued with the Department of Environmental Resources (DER). Regarding the SRBC permit, will instream water quality monitoring be required to verify that the predicted improvements in water quality will indeed occur?

2. Changes in physical habitat related to the proposed consumptive use would be limited to the area downstream of the Glatfelter discharge. The additional reductions in flow are relatively small and the augmented flow from Lake Marburg appear adequate to protect habitat in this reach. We have greater concern, however, with the 1.8 mile section of Codorus Creek between the taking point and the discharge. Although impacts in this region are unrelated to the current permit, we would like to request the following information to improve our understanding of the impacts of flow reductions on this section of the stream:

a. A flow duration analysis of Codorus Creek upstream of the taking point prior to the construction of Lake Marburg
b. A flow duration analysis of Codorus Creek upstream of the taking point subsequent to the construction of Lake Marburg
c. A flow duration analysis of Codorus Creek downstream of the taking point subsequent to the construction of Lake Marburg. This analysis should not include the discharge flows from Glatfelter, which are ow included in the USGS records for the Spring Grove gage.

We request that calculations of average daily flow be provided for each of the above analyses.

3. Page 4 of the application states that the currently permitted consumptive use for the Glatfelter facility is 0.9 mgd; Page 5 states "The proposed net consumptive use will be 0.67 mgd after completion of the Pulp Mill Modernization Project in August 1994; and Table 7 of Appendix C lists current consumptive use as 2.5 mgd. Which is correct?

4. Although loading of a number of contaminants will decrease as a result of the YCEP proposal, we note that copper concentrations will increase to levels which are above Chronic Fish Health criteria (Table 15 of Appendix C). Will these impacts be mitigated by improved treatment of wastewater?

Thank you for the opportunity to review this application. We plan to also provide comments to the Department of Energy (DOE) regarding this project proposal. There is a considerable amount of additional information we have been provided by DOE which we are in the process of reviewing. Additional concerns may come to light as a result of that review. We will be sure to inform you of any such concerns at the time this review is completed.

LMY:dms

cc: Arway, Snyder, Kaufmann, Creyer - PFBC
Schott - DER
Wachter - DOE
John Klunk

United States Department of the Interior

NATIONAL PARK SERVICE
Mid-Atlantic Region
143 South Third Street
Philadelphia, PA 19106

IN REPLY REFER TO:

N3615(MAR-MR)

DEC 22 1994

Suellen A. Van Ooteghem, Ph.D.
Environmental Project Manager
Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, West Virginia 26507-0880

Dear Ms. Van Ooteghem:

We received the copy of the Prevention of Significant Deterioration (PSD) application for the York County Energy Partners L.P. (YCEP) Cogeneration Project, a Clean Coal Technology Demonstration Project under consideration by the Department of Energy (DOE). As part of the DOE's preparation of an Environmental Impact Statement, you requested our comments regarding the application. The YCEP project would be located approximately 150 km northwest of Shenandoah National Park, and 29 km northeast of Gettysburg National Military Park and Eisenhower National Historic Site. Shenandoah National Park is a Class I area administered by the National Park Service. Gettysburg National Military Park and Eisenhower National Historic Site are Class II areas, also administered by the National Park Service. We have reviewed the PSD application and have the following comments.

Additional Impact Analysis

Section 6.9 of the application contains the required additional impact analysis, to assess impacts to visibility, acid deposition, soils, and vegetation in the vicinity of the source. We are pleased that YCEP submitted a modeling analysis for Gettysburg National Military Park. Since expected reductions in nitrogen oxide and sulfur oxide emissions from P.H. Glatfelter Company, an adjacent pulp mill, will be made federally enforceable concurrent with this permit, the YCEP project should result in a net air quality benefit for the two parks in Gettysburg, Pennsylvania.

Class I Impact Analyses

Section 6.10 of the application states that because the project is more than 100 km from any Class I area, no air quality modeling analysis is required. Because emissions will decrease substantially (1910 tons per year of sulfur dioxide, 998 tons per year of nitrogen oxides and 110 tons per year of particulate matter), a net air quality benefit should also occur at Shenandoah National Park. However, for your future information, we would like to clarify the requirements for Federal Land Manager (FLM) notification and Class I impact analyses.

Generally, the permitting authority should notify the FLM of all major sources proposing to locate within 100 km of a Class I area, however, the permitting authority should also notify the FLM of sources proposing to locate at distances greater than 100 km in certain instances. In this instance, the National Park Service has certified that adverse impacts currently exist at Shenandoah National Park. In addition, the EPA guidelines state that very large sources may be expected to affect air quality related values at distances greater than 100 km, and the FLM should be notified of such sources on a case-by-case basis. Regarding the distance limitation for using dispersion models, although the Environmental Protection Agency (EPA) generally limits the application of models to a distance of 50 km in non-Class I situations, any reasonably expected impacts for Class I areas must be considered irrespective of the 50 km model limitation. If the EPA intended the NPS to be notified of certain projects located more than 100 km from Class I areas, as indicated above, it follows that the potential impacts of these sources are to be assessed (i.e., modeled). More information and guidance regarding this policy can be found in the EPA's *New Source Review Manual* (October 1990). In addition, our *Permit Application Guidance for New Air Pollution Sources* includes information regarding notification and impact analyses.

Best Available Control Technology (BACT) Analysis

We have reviewed the BACT analysis and agree the proposed technologies represent BACT, except that previous BACT determinations in Pennsylvania required coal cleaning to further reduce sulfur dioxide emissions. YCEP and DOE should still be able to demonstrate the effectiveness of this clean coal technology, even if coal cleaning is required. Therefore, we believe BACT for this project should be 95% control of sulfur dioxide. In addition, the application indicates no fluidized bed units of the proposed size exist, therefore data are not available to establish what actual levels of emissions may be achievable. It is possible that actual achievable emissions may be lower than those proposed. We agree that the Lowest Achievable Emission Rate for nitrogen oxide emissions should be determined during compliance testing. Likewise, we believe the BACT emission levels for the other pollutants should be set at lower levels than those proposed, if testing indicates lower levels can be achieved on a continuous basis.

Emission Reductions

The application indicates nitrogen oxide emission offsets will be obtained. We have received your September 27, 1994, letter, which discusses the reductions that will be made at P. H. Glatfelter Company. The letter indicates that these reductions will be made federally enforceable, and that YCEP's permit will reference the reductions at P.H. Glatfelter. It is extremely important that the proposed reductions in both nitrogen oxide and sulfur dioxide emissions be made federally enforceable and permanent. Provided the reductions are permanent, we have no concerns regarding air quality impacts to Shenandoah National Park, Eisenhower National Historic Site or to Gettysburg National Military Park. Should the reductions become unenforceable for whatever reason in the future, we would request to review the associated impacts.

Thank you for the opportunity to provide comments regarding this project. Please contact Cathy Rhodes of our Air Quality Division in Denver at (303) 969-2075 if you have any questions regarding our comments.

Sincerely,

/s/ Warren D. Beach

for B. J. Griffin (Ms.)
Regional Director
Mid-Atlantic Region

cc:
Lief Erikson
Pennsylvania Department of Environmental Resources
Southcentral Harrisburg Region
Air Quality Division
1 Ararat Blvd.
Harrisburg, Pennsylvania 17110

John Garland
Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, West Virginia 26507-0880

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

P. O. Box 8465
Harrisburg, PA 17105-8465
December 22, 1994

(717)787-9637

Bureau of Water Quality Management

Dr. Suellen Van Ooteghem
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Re: DER File No. 08032

Dear Dr. Van Ooteghem:

We have received your November 17, 1994 letter and Draft Environmental Impact Statement for the Proposed York County Energy Partners Cogeneration Facility. It appears as though the project lies within the **Codorus Creek** drainage basin rather than **West Branch Codorus Creek** as indicated by the draft's text and figures.

The section of **Codorus Creek** in proximity to the proposed facility is designated Warm Water Fishes (WWF) and carries an additional parameter for "color" in Chapter 93 of the Rules and Regulations of the Pennsylvania Department of Environmental Resources. The WWF protected use includes the maintenance and propagation of fish species and additional flora and fauna which are indigenous to a warm water habitat. The color criteria is for a maximum of 50 units on the platinum-cobalt scale with no other colors perceptible to the human eye.

The Draft Environmental Impact Statement points out that discharges of wastewater and stormwater are planned to **Codorus Creek.** We are concerned by the expected increases in dissolved solids in **Codorus Creek** caused by the proposed facility and by the projected concentration of chloride which is in exceedence of the EPA (1988a) chronic ambient water quality criteria. Other concerns involve the placement of a portion of the project within the 100-year floodplain and the placement of proposed pipelines through identified wetlands. It is prudent to avoid these situations where alternatives exist. Additionally, adequate erosion controls must be utilized to minimize sedimentation of Codorus Creek during construction.

An Equal Opportunity/Affirmative Action Employer

Recycled Paper

Thank you for the opportunity to comment on the Proposed York County Energy Partners Cogeneration Facility project.

Sincerely,

Edward R. Brezina

Edward R. Brezina
Chief
Division of Assessment and Standards

York County Energy Partners

County Energy Partners, L.P.
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

December 28, 1994

Mr. Jeffrey J. Moyer
Air Pollution Control Engineer
Pennsylvania Department of Environmental Resources
Southcentral Regional Office
One Ararat Boulevard
Harrisburg, PA 17110-9720

SUBJECT: **PSD Air Quality Permit Application: File No. 67-306-007**
York County Energy Partners, L.P.
North Codorus Township, York County, PA

Dear Mr. Moyer:

As we discussed on Friday, 23 December, I understand the Department is considering the inclusion of special conditions in the above-referenced draft PSD Plan Approval document to address (1) the yearly VOC emission rate and (2) metal emission rates for mercury and beryllium. Please consider the following information when developing these two proposed special conditions.

VOC Emission Rate Special Condition:

YCEP would like to confirm that the circulating fluidized bed (CFB) boiler manufacturer has provided updated emissions information for volatile organic compounds (VOC's). Based on the revised information, the CFB boiler VOC's emission rate would be 11 lbs/hr for all operating loads (50%, 75%, and 100%). This revised emission rate is based on pilot plant test results using the expected western Pennsylvania coal supplier.

This VOC emission rate would result in a VOC emission level of 48.2 tons per year. Since the VOC emission rate would be less than 50 tons per year, no operating special conditions would be needed on the CFB boiler. The boiler manufacturer's VOC emission rate guarantee (11 lbs/hr) would be confirmed during the performance test at unit start-up.

Metal Emission Rates:

As we discussed, YCEP understands that the Department is considering metal emissions limits for mercury and beryllium in the draft Plan Approval document. These metals are PSD pollutants and their emission levels are reviewed as part of the BACT analysis. As previously stated in the YCEP letter of 16 December 1994, YCEP proposes that the draft PSD Plan Approval document special condition for metal emission rates require testing and reporting for various trace element emissions as a component of stack testing during the first two yearly source tests. Due to natural variability in coal characteristics, establishing specific permitted emission rates would be inappropriate.

There is no mercury emission standards for coal fired electric-utility units. The only emission standard which has been adopted for mercury is applicable to municipal resource recovery facility operations. This standard is 80 microgram of mercury per cubic meter of flue gas flow. If a mercury standard must be considered for the YCEP draft Plan Approval document the 80 microgram/cubic meter standard should be used as the basis. This standard would equate to an emission limit of 8.66 E-05 lbs/mmbtu for the proposed YCEP boiler.

There is no beryllium emission standard for coal fired electric-utility unit or any other combustion type unit. The only beryllium standard is an ambient air quality standard established to protect air quality. As we discussed, the proposed YCEP expected beryllium emission rate results in a ground level impact of 1/1000 of the ambient air standard. Due to the lack of an applicable beryllium emissions standard on any other combustion type units, YCEP requests that no beryllium emission limit be included in the draft Plan Approval document.

Since the 1990 Clean Air Act Amendments specifically exempt electric utility-type facilities from Section 112 Hazardous Air Pollutants (HAPs) review pending release of the ongoing EPA technical study, no emission limits should be included with the PSD Plan Approval pending the outcome of the EPA study. Once this study is completed, EPA is expected to promulgate emission standards applicable to electric utility units for those trace elements deemed to be significant. At that time, EPA would require electric utility-type unit to comply with any emissions standard as part of the Section 112 HAPs requirements.

Please consider this information when preparing the draft Plan Approval document. If you have any questions or need additional information, please contact me.

Sincerely,

Gary D. Kinsey, P.E.
Manager, Environmental Affairs

END

FOSTER WHEELER ENERGY CORPORATION

PERRYVILLE CORPORATE PARK • CLINTON, NEW JERSEY 08809-4000 • PHONE 908-236-4000

FW-AP #58
January 2, 1995

Air Products and Chemicals, Inc.
Environmental/Energy Systems
7201 Hamilton Boulevard
Allentown, PA 18195-1501

Attention: Mr. David C. Wolfson

Subject: York County Energy Partners Project
Cogeneration Project
FWEC Contract #3-43-7030
YCEP Project Number 03-4-8070
VOC EMISSIONS

As requested the following information on VOC emissions is submitted for your use.

FWEC does Guarantee that when the boiler is operated under steady state conditions at a unit capacity of 1,050,000 (50% MCR) to 2,100,000 (100% MCR) pounds of primary steam per hour when firing the range of fuels and sorbent given in section V.E.and G respectively the Volatile Organic Compound emissions in the flue gas measured at the stack shall not exceed 10 pounds per hour based upon a 24 hour average.

If I can be of further assistance please do not hesitate to contact me.

Very truly yours,
FOSTER WHEELER ENERGY CORPORATION

R. W. Voyles
Project Manager

US-2 (3-89)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

Engineering District 8-0
2140 Herr Street
Harrisburg 17103-1699
January 3, 1995

IN REPLY REFER TO

Department of Energy's Draft
Environmental Impact Statement
York County Energy Partners
Cogeneration Project
York County, PA (DOE/EIS-0221)

Dr. Suellen Zan Ooteghen
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, West Virginia 26507-0880

Dear Dr. Ooteghen:

Thank you for sending a copy of the Draft Environmental Impact Statement for the proposed York County Energy Partners' Cogeneration project in York County, Pennsylvania. This has been reviewed by the PennDOT District 8 staff.

Air Products has submitted an application for the signalization of PA 16 and PA 116 as required in their traffic impact study for the cogeneration plant. Recommendations from the study have been included in their PennDOT highway occupancy permit application. They will receive the permit from PennDOT. PennDOT District 8 has no substantive comments on the Draft Environmental Impact Statement.

Thank you for the opportunity to review this document. If you have any questions, please contact Christie J. Perry, District Environmental Manager, at 717-787-5222.

Very truly yours,

Barry G. Hoffman, P.E.
For District Engineer

CJP:jlg

Recycled Paper

Telephone Memorandum

Environmental Resources Management, Inc.

Date	5 January 1995	*W.O. NO.*	34309.09.01
Time	3:30 pm	*Company*	PA Game Commission
Name	Mr. Denver A. McDowell	*Telephone*	(717) 787-6818

Subject: Threatened & Endangered (T&E) Species response letter to ENVIRON dated 3 June 1994 (Upland Sandpiper and Least Shrew)

ERM

Notes:

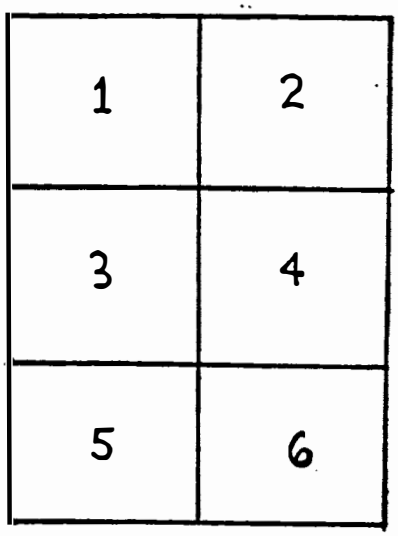
As requested by Karen Winegardner of Air Products, a call was made to Mr. McDowell to determine the reasons for the conflicting T&E species response letters from the Pennsylvania Game Commission (PGC) to ERM, Inc. and ENVIRON for the same YCEP project located in Spring Grove, PA. As per the letter of transmittal sent to Karen on 5 January 1995, the accompanying packet of information included non-occurring T&E species letter responses from the PGC dated 18 March 1993 for the North Codorus Township Site and 13 July 1993 for the multi-option transmission line corridor sites. Both of these ERM requests for T&E species information were made by Ms. Sandra Collins and Mr. John Magistro, respectively and were site specific as per the project area maps that were generated by ERM, Inc.

The ENVIRON request made by Mr. Tom Angus was very general, and included a request for information on T&E species in a 10 km radius from the proposed YCEP facility site. As the map in the packet provided to Karen shows, ten kilometers encompasses a very large area compared to ERM's more site specific requests.

According to Mr. McDowell, the problem lies within the specificity of an area for a T&E species information request. When a general request for information is made (i.e. 10 km radius from the site), the PGC utilizes the data bases of the Pennsylvania Natural Diversity Inventory (PNDI) for reporting records on birds and mammals. PNDI's data base is based on USGS quadrangle name(s) and they normally use more historical record siting information. When a USGS quadrangle name is used alone in the data base they encompass a lot more area and thus more potential exists for a positive hit. For example, if a T&E species record occurred in the northeastern most corner of the Abbottstown, PA USGS quadrangle, and the actual site to be developed is located some 10 miles away in the

southwestern section of the same quadrangle, then the record of the T&E species would be listed as a positive hit and in the project area of concern.

Conversely, when site specific information is given, as with the maps and project descriptions submitted to the resource agencies in ERM's requests for information, a much more accurate and labor intensive search on T&E species in conducted. Mr. McDowell stated that an intensive search is completed by PGC's own people for T&E species requests that are site specific (i.e. ERM's site and corridor requests). For the YCEP request, Roland Bergner of the PGC was the staff member that conducted the information search. In this type of request the USGS quadrangle(s) that the site or corridor is located in is divided up into six equal blocks (numbered Blocks 1 to 6 as illustrated below).



Then the bird and mammal T&E species records are located with "pin point accuracy" within each block. If T&E species are located within the same block as the project site is in, then a positive hit is recorded and the inquiring person or party is notified that the project may have impact on the species. In this case, further, more intensive site-specific field studies are required. However, if the T&E species is located in Block 1 and the project is located in another block, then there is no need to go any further with more specific studies and the project will not impact any T&E species according to PGC records. This latter scenario was and still is the case with the YCEP cogeneration site and its transmission line corridor. The dated responses from the PGC to ERM, Inc. staff stated above are accurate and still stand as no potential impact to any T&E bird and/or mammal species regardless of the latest, more general response to ENVIRON which encompassed an area of 10 km. Therefore, the upland sandpiper *(Bartramia longicauda)* and the least shrew *(Cryptotis parva)* do not exist within the project site or the transmission line corridor route

according to the PGC's data base. Furthermore, the habitat requirements of these species are different than the habitats in the aforementioned project areas.

Follow-Up Actions:

No further action is required on YCEP's part according to Mr. McDowell of the PGC.

Message Received By: Dan Synoracki DPS 111095 ERM, Inc. Exton

Copies To: Karen Winegardner, Air Products
Bob Keating, ERM, Inc.
John Magistro, ERM, Inc.
Don Knorr, ERM, Inc.

Telephone Memorandum

Environmental
Resources
Management, Inc.

Date	9 January 1995	*W.O. NO.*	34309.09.01
Time	9:30 am 9:55 am	*Company*	PB&FC/ PNDI
Name	Mr. Andrew L. Shiels/	*Telephone*	(814) 359-5110
Name	Ms. Kathy McKenna	*Telephone*	(717) 787-3444
Subject:	Threatened & Endangered (T&E) Species response letter to ENVIRON dated 13 July 1994 (Branching Bur-reed)		



ERM

Notes:

As requested by Karen Winegardner of Air Products, a call was made to Mr. Shiels to determine the reasons for the conflicting T&E species response letters from the Pennsylvania Fish & Boat Commission (PF&BC) to ERM, Inc. and ENVIRON for the same YCEP project located in Spring Grove, PA. As per the letter of transmittal sent to Karen on 5 January 1995, the accompanying packet of information included non-occurring T&E species letter responses from the PF&BC dated 2 March 1993 for the North Codorus Township Site and 2 September 1993 for the multi-option transmission line corridor routes. Both of these ERM, Inc. requests for T&E species information were made by Ms. Sandra Collins and Mr. John Magistro, respectively, and were site specific as per the project area maps that were generated by ERM, Inc.

The ENVIRON request made by Mr. Tom Angus was very general, and included a request for information on T&E species in a 10 km radius from the proposed YCEP facility site. As the map in the packet provided to Karen shows, ten kilometers encompasses a very large area compared to ERM's more site specific requests.

According to Mr. Shiels, the PF&BC uses the Pennsylvania Natural Diversity Inventory (PNDI) data base for a T&E species information request. In fact, the PF&BC can access this data base through a modem network. In his 13 July letter to ENVIRON, he refers to Mr. Edward Dix of PNDI for more information on branching bur-reed (*Sparganium androcladum*). When Mr. Shiels was contacted via telephone he also referred ERM, Inc. to contact Mr. Dix or Kathy McKenna of PNDI. The PF&BC had no other information available on branching bur-reed.

Ms. Kathy McKenna of PNDI was contacted on the same date as the

PF&BC. Mr. Dix was not available for comment, however, Ms. McKenna provided the necessary information that was requested. Regarding branching bur-reed, she stated that PNDI has conducted various surveys on various lakes of northwestern Pennsylvania, where they have had historical records of the plant occurring. To this date, PNDI has never seen the plant anywhere in Pennsylvania during their recent field surveys. Ms. McKenna stated that the plant requires pristine lakeshore habitat for the plant to survive. She also stated that one should discount the possibility of the plant occurring on man-made lakes in the state. This would include such aquatic habitats as Kessler Pond and the Mill Pond that is located within the vicinity of the YCEP project.

Therefore, branching bur-reed does not exist within the project site or the transmission line corridor route according to the PNDI's data base. This is further verified by PNDI letter responses to Ms. Sandra Collins of ERM, Inc. on 15 April 1992 for the North Codorus Township cogeneration site, and to Mr. John Magistro of ERM, Inc. on 5 August 1993 for the multi-option transmission line corridor routes as PNDI stated that "A review of the proposed project site did not reveal any natural resources of special concern".

Follow-Up Actions:

Ms. McKenna stated that YCEP should "write-off" the potential for branching bur-reed to occur within the project area if no pristine lakes or ponds are going to be impacted by development activities. Since this is the case, no further action is required on YCEP's part according to Ms. McKenna of PNDI.

DPS 1/10/95

Message Received By: Dan Synoracki ERM, Inc. Exton

Copies To: Karen Winegardner, Air Products
Bob Keating, ERM, Inc.
John Magistro, ERM, Inc.
Don Knorr, ERM, Inc.

DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MD 21203-1715

REPLY TO
ATTENTION OF

Operations Division

JAN 09 1995

Subject: CENAB-OP-RR(YORK COUNTY ENERGY PARTNERS)95-00114-7

Environmental Resources Management, Inc.
Attn: Mr. Dan Synoracki
855 Springdale Drive
Exton, Pennsylvania 19341

Dear Mr. Synoracki:

I am replying to your request dated October 25, 1994, for a jurisdiction determination and verification of the delineation of Waters of the United States, including jurisdictional wetlands, on the proposed electric transmission line servicing the Spring Grove Cogeneration Plant, York County, Pennsylvania.

A field inspection was conducted on November 21, 1994. This inspection indicated that your delineation of Waters of the United States, including jurisdictional wetlands is accurate. This verification is valid for three years from the date of this letter.

You are reminded that any grading or filling of Waters of the United States, including jurisdictional wetlands, is subject to Department of the Army authorization. In addition, the Interstate Land Sales Full Disclosure Act may require that prospective buyers be made aware, by the seller, of the Federal regulatory authority over any Waters of the United States, including jurisdictional wetlands, being purchased.

If you have any questions concerning this matter, please call Mr. John Gibble at (410) 962-1846.

Sincerely,

Thaddeus J. Rugiel
Acting Chief, River Basin
Permits Section

Enclosures

Copy Furnished:

PA DER, SC
CENAB-OP (Cori Brown)

Environmental
Resources
Management, Inc.

855 Springdale Drive
Exton, Pennsylvania 19341
(610) 524-3500
(610) 524-7335 (fax)

25 October 1994
Reference: 34309.07.01

River Basin Permit Section
Baltimore District U.S. Army Corps of Engineers
P.O. Box 1715
Baltimore, Maryland 21203-1715
ATTN: Mr. John Gibble

ERM

CE-00114
11/21/94

RE: Request for a Jurisdictional Determination for Wetlands Delineated Along Proposed YCEP Electrical Interconnect, and Pipeline Utility Corridors, and the PA Routes 516 and 116 Interchange Improvement Project: York County, PA

Dear Mr. Gibble:

Environmental Resources Management, Inc. (ERM), on behalf of the York County Energy Partners, LP, is requesting that a Jurisdictional Determination (JD) be performed by the Baltimore District of the U.S. Army Corps of Engineers (USACOE) for utility corridors and roadway interchange improvements associated with the York County Energy Partners Environmental and Energy Project (North Codorus Township Site) located on Route 116 in the Borough of Spring Grove and North Codorus Township, York County, Pennsylvania.

Currently, a cogeneration facility, including associated utility corridors and easements, is proposed to be constructed on the site. The coordinates for this project site are Latitude: 39° 52′ 3″ and Longitude: 76° 52′ 15″ and the tax identification for the property is Lot: 40-00FF96, Block: 96. A JD was conducted by the USACOE for this property in June 1993, and verified as accurate in a letter dated 9 August 1993. The exact locations and extent of the proposed utility line corridors and the Route 516/116 interchange improvements are provided on the maps enclosed in the wetland delineation reports, for which this JD is being requested.

The applicant for this JD, York County Energy Partners, LP, is not currently the owner of the properties proposed for development. However, two of the property owners, P.H. Glatfelter Company, and the Maryland and Pennsylvania Railroad Company have granted the Baltimore District USACOE authorization to the USACOE and the York County Energy Partners, LP to conduct the JD. A copy of each letter is attached. The third property owner is the USACOE Baltimore District.

The proposed electrical interconnect corridor crosses the Indian Rock Dam Flood Control Project lands, which are located along the West Branch of Codorus Creek.

ERM completed wetland delineations of an approximately 3.8 mile corridor extending from the proposed project site to the town of Bair, Pennsylvania as well as corridor areas for the proposed steam/condensate, water supply, and cooling water/wastewater return lines, which are located almost entirely on P.H. Glatfelter property. These areas, including the area situated in the vicinity of the PA Routes 516/116 Interchange, will be referred to as the study areas. The waterbody in closest proximity to the study areas is West Branch Codorus Creek. A copy of the wetland investigation reports for each study area is attached for your review. The reports describe the results of the wetland investigations and delineations conducted by ERM in April and May 1994.

We would like to schedule the JD with you so that we may accompany you during your field visit. We would greatly appreciate a telephone call as to when you would be available so that we can adjust our schedules accordingly. If you have any questions regarding this request, or require additional information, please feel free to call me at (610) 524-3627 or Donald Knorr at (610) 524-3677.

Sincerely,

Daniel P. Synoracki

Daniel P. Synoracki
Sr. Project Scientist

dps:DPS
enclosures: (6)

-Final YCEP Electrical Interconnect and Utility Corridors Wetland Delineation Report
-Final YCEP RT 516/116 Interchange Wetland Delineation Report
-P.H. Glatfelter Property Access Letter dated 13 October 1994
-Maryland and Pennsylvania Railroad Company Property Access Letter dated 28 July 1994

Revised 6/14/94

PENNSYLVANIA NATURAL DIVERSITY INVENTORY
REVIEW RESPONSE

REQUESTER: Ms. Jan K. Wachter
U.S. Department of Energy
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26505

PROJECT: North Cordorus Township Project Site and Associated Optional Transmission Line Rights-of Way, York County

QUADRANGLE: *Abbotstown, Hanover, Seven Valleys, West York*

In response to your request of January 6, 1995, an area was reviewed for the presence of natural resources of special concern using the Pennsylvania Natural Diversity Inventory (PNDI) information system. We do not anticipate any impact on rare, threatened or endangered species at this location.

EFD
PNDI staff

1/10/95
Date

PNDI is a site specific information system which describes significant natural resources of Pennsylvania. This system includes data descriptive of plant and animal species of special concern, exemplary natural communities and unique geological features. PNDI is a cooperative project of the Department of Environmental Resources, The Nature Conservancy and the Western Pennsylvania Conservancy. This response represents the most up-to-date summary of the PNDI data files. However, an absence of recorded information does not necessarily imply actual conditions on-site. A field survey of any site may reveal previously unreported populations. PNDI is funded through contributions to the Wild Resource Conservation Fund.

Be advised that legal authority for Pennsylvania's biological resources resides with three administrative agencies. The enclosure titled PNDI Species List, outlines which species groups are managed by these agencies. If you have questions concerning this response or the PNDI system, please contact our office at 717/787-3444 or write:

DER - Bureau of Forestry - PNDI
P.O. Box 8552
Harrisburg, PA 17105-8552

PENNSYLVANIA NATURAL DIVERSITY INVENTORY

SPECIES LISTS

The statutory authority for Pennsylvania's animals and plants resides with three separate agencies. The Pennsylvania Department of Environmental Resources has the responsibility for management of the Commonwealth's native wild plants. The Pennsylvania Fish and Boat Commission is responsible for management of fish, reptiles, amphibians and aquatic organisms within the Commonwealth. The Pennsylvania Game Commission has the responsibility for managing the state's wild birds and mammals.

For information on current species status, please consult the appropriate agency. Requests for information should be directed to:

Plants and PNDI - general

Plant Program Manager
PA Department of Environmental Resources
Bureau of Forestry
Forest Advisory Services
P.O. Box 8552
Harrisburg, PA 17105-8552
(717) 787-3444

FISH, REPTILES, AMPHIBIANS, AQUATIC ORGANISMS

Endangered Species & Herpetology Coordinator
Pennsylvania Fish & Boat Commission
Bureau of Fisheries and Engineering
450 Robinson Lane
Bellefonte, PA 16823
(814) 359-5113

BIRDS and MAMMALS

Pennsylvania Game Commission
Bureau of Wildlife Management
2001 Elmerton Avenue
Harrisburg, PA 17110-9797
(717) 787-5529

For information on species listed under the federal Endangered Species Act of 1973 occurring in Pennsylvania, contact:

Endangered Species Biologist
U.S. Fish and Wildlife Service
315 South Allen Street, Suite 322
State College, PA 16801
(814) 234-4090

COMMONWEALTH OF PENNSYLVANIA
PENNSYLVANIA FISH & BOAT COMMISSION
Division of Environmental Services
450 Robinson Lane
Bellefonte, PA 16823-9616
(814) 359-5147

January 10, 1995

Dr. Suellen Van Ooteghem
U.S. Department of Energy
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Re: York County Energy Partners Cogeneration Project
Comments - Draft EIS

Dear Dr. Van Ooteghem:

The Pennsylvania Fish and Boat Commission has reviewed the Draft Environmental Impact Statement (DEIS) for the proposed York County Energy Partners Cogeneration Facility. This project would be located adjacent to the P. H. Glatfelter Company Roundwood Facility in North Codorus Township. Cooling water system make-up requirements for the project would be provided by the P.H. Glatfelter facility wastewater treatment plant discharge. These withdrawals would average 4.1 million gallons per day (mgd) with a peak use of 5.4 mgd. Consumptive use would equal 2.8 mgd. Thus the total discharge volume from the P. H. Glatfelter facility would decline from 12.5 mgd to 9.7 mgd.

On December 21, 1994 we provided comments to the Susquehanna River Basin Commission (SRBC) regarding a consumptive use application for the proposed cogeneration facility. As most of our concerns regarding this project are related to the issue of consumptive water loss, we are including the SRBC comment letter as an attachment to this letter and request that it also be considered as comments to the DEIS. The following items are provided as additional comments on the DEIS:

1. Page 3-22 - It is stated that "when flows exceed 3.7 cfs (2.4 mgd), water is pumped by P. H. Glatfelter Company from the diversion dam to Lake Marburg." How is this possible when the minimum flowby at the diversion dam per the SRBC consumptive use permit is 4.9 mgd? Please explain.

2. Page 3-23; Paragraph 2 - It is stated that low flows have averaged 23.0 (14.9 mgd) for the USGS Spring Grove Station since 1970. Do these values represent stream flow at Spring Grove before or after the P. H. Glatfelter wastewater

volume is added, since USGS typically adds these flows in their statistics on stream flow at Spring Grove?

3. We are concerned with the finding that EPA and DER chronic fish health criteria for chloride and copper are projected to be exceeded downstream of the discharge due in part to the effects of the consumptive loss during low flow conditions. EPA acute fish health copper levels will be approached (16.29 ug/l compared to EPA criterion of 18 ug/l - See Table 15 of June 23, 1994 Codorus Creek Water Resource Study prepared by ERM). In addition, lead concentrations were found to exceed DER water quality standards downstream of the P. H. Glatfelter discharge during a 1990 SRBC study (Table 3.1-9, Page 3-29). Since the SRBC study was not conducted at Q_{7-10} conditions, it would seem that greater exceedances in the lead concentration could result as a result of consumptive losses. (This finding conflicts with the information reported in Table 15 of the June 23, 1994 Codorus Creek Water Resource Study prepared by ERM which shows that chronic fish health concentrations of lead will not be exceeded.) Please explain the reason for the discrepancies in the various reports regarding lead. Also, we request that both the USEPA and Pennsylvania DER be consulted for an opinion on how these violations of state and federal water quality criteria will be addressed.

4. Pages 3-26, 3-27, 3-29 and Table 3.1-9 - Related to comment 3 above, the 1990 SRBC data on which estimates of lead and copper concentrations were based represent only a single monitoring event and were not adequate to allow determination of the frequency and duration of the various water quality criteria exceedances. Was this lack of data remedied in any way in the preparation of the EIS? It would seem that additional preproject water quality monitoring may be necessary to address this issue.

5. Page 3-41; last paragraph - It is stated that in July 1994, the Pennsylvania DER and PFBC lifted a consumption advisory for green sunfish in Codorus Creek. The Pennsylvania Department of Health is also involved in the lifting of consumption advisories.

6. Page 4-87; Section 4.1.4.2.8, Paragraph 1 - It is stated that Marburg Lake drawdowns as low as 188.6 m (619 ft) have been demonstrated to have little effect on recreation in Codorus State Park. We would comment that though the data is not definitive, we feel there may be a connection between drawdowns in Lake Marburg and poor yellow perch spawning success and periodically low year class strength. As such, this could represent a potential impact to recreation in terms of angling.

7. Page 4-94; Section 4.1.5.1; Paragraph 1 - It is stated that the P. H. Glatfelter Company discharge is not currently adversely impacting the aquatic community structure. However, we would note that the most recent (1992) fisheries data compiled by Dr. Robert Denoncourt (See Table 1 of November 1992 Report, Appendix D of SRBC consumptive use permit application) showed depressed fauna downstream of the P. H. Glatfelter discharge with IBI values in the "poor" to "fair' range.

8. Page 6-15; Section 6.4.4 - We disagree with the statement that since the water used for the proposed project would be drawn from wastewater from the P. H. Glatfelter discharge it would not constitute an additional withdrawal from Codorus Creek. Since the P. H. Glatfelter water is withdrawn from Codorus Creek and then returned, any withdrawal of water from the return flow constitutes an additional withdrawal from Codorus Creek with respect to the discharge point.

9. Appendix E - We would note that our September 20, 1993 letter regarding the Notice of Intent to Prepare an EIS was not included in this appendix. We are attaching another copy of this letter for your reference.

Thank you for the opportunity to comment on the DEIS. Please feel free to contact me if you have any questions concerning the above comments.

Sincerely,

Leroy M. Young, Fisheries Biologist
Division of Environmental Services

LMY:dms

cc: Arway, M. Hartle, Snyder, Kaufmann, Creyer - PFBC
Kostmayer - EPA, Region III
Oberdick - DER
Kulp - USFWS
J. Klunk

Attachments

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

P.O. Box 2063
Harrisburg, PA 17105-2063
January 11, 1995

Secretary's Office of Policy

Dr. Suellen Van Ooteghem
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Dear Dr. Ooteghem:

The Pennsylvania Department of Environmental Resources (DER) has reviewed the Draft Environmental Impact Statement (DEIS) involving York County Energy Partners Proposed Cogeneration Facility. We have the following comment:

Regional staff from the Air Quality Program, Water Management Program and Waste Management Program as well as the Regional Permit Coordinator will be involved in the required permit application reviews. Permit requirements are listed on Table 9-1 of the DEIS.

If you have any questions, please feel free to contact Michael R. Steiner at DER's Southcentral Regional Office at (717) 541-7969.

We appreciate the opportunity to comment on this proposal.

Sincerely,

Frederick G. Carlson
Director
Secretary's Office of Policy

SUSQUEHANNA RIVER BASIN COMMISSION

1721 North Front Street Harrisburg, Pennsylvania 17102

717-238-0423

Application 19950104

YORK COUNTY ENERGY PARTNERS

Consumptive Water Use of up to 2.8 MGD by a Cogeneration Facility,
North Codorus Township, York County, Pennsylvania

Review Authority

The application was reviewed by Commission staff pursuant to Article 3, Section 3.10 of the Susquehanna River Basin Compact, P.L. 91-575, and Commission Regulation 803.61 relating to the consumptive uses of water.

Description

Purpose. The purpose of the application is to request approval for the consumptive use of water at a cogeneration facility.

Location. The project is located in North Codorus Township, York County, Pennsylvania, adjacent to P.H. Glatfelter Company.

Project Features. The applicant has requested approval for the consumptive use of water up to 2.8 million gallons per day (MGD) to be used at an average rate of 2.5 MGD.

The 250 megawatt coal-fired cogeneration facility is a project being funded as part of the Department of Energy's Clean Coal Technology Program. The proposed project will demonstrate the commercial viability of using a circulating fluidized bed boiler for a full scale electric utility.

Water for the project will be obtained from the P.H. Glatfelter Company wastewater treatment plant and a portion of the water will be evaporated in the project's cooling tower.

The project will provide steam to P.H. Glatfelter Company. Although the cogeneration facility is located on Glatfelter property, it is an independent project from the existing P.H. Glatfelter Company Spring Grove facility.

In order to satisfy the requirements of Commission Regulation 803.61, the applicant proposes to pay a fee to the Commission for the consumptive use of water.

Findings

The consumptive use of water by the project is subject to the requirements of Commission Regulation 803.61.

The applicant has paid the application fee in accordance with Commission Resolution 91-16.

The project does not conflict with nor adversely affect the Comprehensive Plan, is physically feasible, and does not adversely influence the present or future use and development of the water resources of the basin.

A Final Environmental Impact Statement is being prepared for this project by the U.S. Department of Energy. The Draft EIS concludes that the project will have no significant impacts on the receiving stream and may improve water quality and stream habitat.

Decision

The consumptive use of 2.8 MGD of water is approved pursuant to Article 3, Section 3.10 of the Compact, subject to the following conditions:

a. The applicant shall keep daily records of the project's total water use and consumptive use, and shall provide the results to the Commission annually and as otherwise requested. The consumptive use shall be metered or the quantity calculated as approved by Commission staff. The Commission reserves the right to review plans for determining this consumptive use, inspect measurement equipment, and audit all measurement records.

b. The applicant shall comply with SRBC water conservation requirements as per Commission Regulation 803.63(b).

c. The applicant shall make quarterly payments to the Commission in the amount of $0.14 per 1,000 gallons of water consumptively used by the project. The rate of payment, after appropriate notice to all consumptive users of water using this method of compliance, is subject to change at the Commission's discretion.

d. This action does not obviate the need for the applicant to obtain any other federal, state, or local approvals required for the project.

e. The Commission reserves the right, based upon new findings, to reopen any project docket and make additional orders that may be necessary to mitigate or avoid adverse impacts or otherwise to protect the public health, safety, or welfare. Commission approval confers no property rights upon project sponsors.

f. To ensure that the Commission's decision is consistent with the Final Environmental Impact Statement for the project, this approval will take effect upon issuance of a Record of Decision which supports construction of the project.

By the Commission:

Dated: January 12, 1995

Chairman

J:\DATA\JGRAIN\WORD\YCEPDOC.DOC

YORK
York County Energy Partners

: County Energy Partners, L.P.™
2) South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

January 12, 1995

Mr. Jeffrey J. Moyer
Air Pollution Control Engineer
Pennsylvania Department of Environmental Resources
Southcentral Regional Office
One Ararat Boulevard
Harrisburg, PA 17110-9720

SUBJECT: Metals Emission Limits for PSD Plan Approval
York County Energy Partners 227 MW Cogeneration facility
North Codorus Township, York County
File No.: 67-306-007

Dear Mr. Moyer:

York County Energy Partners (YCEP) has reviewed the Department's letter dated 3 January 1995 concerning the regulatory requirement to establish emission limits for beryllium (Be) and mercury (Hg) in the proposed YCEP PSD permit. Please consider the following proposed emissions limits for beryllium and mercury when finalizing the draft PSD Plan Approval document.

- As previously stated in the YCEP letter of 28 December 1994, there is no mercury emission standards for coal fired electric-utility units. The only emission standard which has been adopted for mercury is applicable to municipal resource recovery facility operations. This standard is 80 microgram of mercury per cubic meter of flue gas flow. Since a mercury standard must be included in the YCEP draft Plan Approval document, the 80 microgram/cubic meter standard should be used as the basis. This standard would equate to an emission limit of 8.66 E-05 lbs/mmbtu for the proposed YCEP boiler.

AIR PRODUCTS
A project company of Air Products

- There is no beryllium emission standard for coal fired electric-utility unit or any other combustion type unit. The only beryllium standard is an ambient air quality standard established to protect air quality. As we discussed, the proposed YCEP expected beryllium emission rate results in a ground level impact of 1/1000 of the ambient air standard. After reveiwing the available information on variations in the beryllium content of the fuel and the potential range in the baghouse operating efficiency, an emission limit of 9.50 E-06 lbs/mmbtu would be appropriate for the proposed YCEP draft PSD Plan Approval document.

Please consider this information when finalizing the draft PSD Plan Approval document. If you have any questions or need additional information, please contact me.

Sincerely,

Gary D. Kinsey
Manager, Environmental Affairs

Environmental
Resources
Management, Inc.

855 Springdale Drive
Exton, Pennsylvania 19341
(610) 524-3500
(610) 524-7335 (fax)

16 January 1995
Reference: 34309.09.01

Ms. Kathy McKenna
PNDI Coordinator
Pennsylvania Natural Diversity Index
Bureau of Forestry
Forest Advisory Services
P.O. Box 1467
Harrisburg, PA 17105-8552

ERM

Dear Ms. McKenna:

Please refer to the attached correspondence package pertaining to threatened and endangered (T&E) species in the vicinity of the proposed York County Energy Partners (YCEP) Cogeneration Facility. As follow-up to our phone conversation on 9 January, 1995, I would like you to review and verify the substance of our conversation in which you indicated that the proposed project would not impact any threatened or endangered species, specifically the branching bur-reed.

Please address the fact that in recent field surveys PNDI has not seen the branching bur-reed in Pennsylvania and that the plant requires a pristine lakeshore habitat, which would not include man-made lakes such as Kessler Pond or the Mill Pond.

To ensure consideration in the Department of Energy's Environmental Impact Statement for the Proposed YCEP Cogeneration Facility, your response should be directed to Dr. Suellen A. Van Ooteghem, US Department of Energy, Environmental Project Manager, 3610 Collins Ferry Road, Morgantown, WV 26505 by the close of the comment period, 31 January, 1995. I appreciate your time and consideration. Please copy me on any correspondence in this regard. If you have any questions, I can be reached at (610) 524-3627.

Best Regards,

Daniel P. Synoracki

Daniel P. Synoracki
Sr. Project Scientist

DPS:tma
Enclosures
cc: Dr. Suellen A. Van Ooteghem, US Department of Energy
Mr. Gary D. Kinsey, York County Energy Partners, L.P.

Environmental
Resources
Management, Inc.

855 Springdale Drive
Exton, Pennsylvania 19
(610) 524-3500
(610) 524-7335 (fax)

16 January 1995
Reference: 34309.09.01

Mr. Denver A. McDowell
Chief, Division of Environmental Planning & Habitat Protection
Pennsylvania Game Commission
2001 Elmerton Avenue
Harrisburg, PA 17110-9797

ERM.

Dear Mr. McDowell:

Please refer to the attached correspondence package pertaining to threatened and endangered (T&E) species in the vicinity of the proposed York County Energy Partners (YCEP) Cogeneration Facility. As follow-up to our phone conversation on 5 January, 1995, I would like you to review and verify the substance of our conversation in which you indicated that the proposed project would not impact any threatened or endangered species.

Please address the fact that the possible existence of the upland sandpiper and least shrew in the vicinity of the proposed facility discovered in a general survey, requested by ENVIRON in May, 1994, is completely invalidated by a more accurate, site specific search which was performed by Roland Bergner of the Pennsylvania Game Commission in response to requests from ERM in February and June, 1993. Mr. Bergner determined that no T&E species are located within the vicinity of either the YCEP cogeneration site or the corresponding transmission line corridor.

To ensure consideration in the Department of Energy's Environmental Impact Statement for the Proposal YCEP Cogeneration Facility your response should be directed to Dr. Suellen A. Van Ooteghem, US Department of Energy, Environmental Project Manager, 3610 Collins Ferry Road, Morgantown, WV 26505 by the close of the comment period, 31 January, 1995. I appreciate your time and consideration. Please copy me on any correspondence in this regard. If you have any questions, I can be reached at (610) 524-3627.

Sincerely,

Daniel P. Synoracki

Daniel P. Synoracki
Sr. Project Scientist

Enclosures
cc: Suellen A. Van Ooteghem, US Department of Energy
Mr. Gary D. Kinsey, York County Energy Partners, L.P.

Environmental
Resources
Management, Inc.

855 Springdale Drive
Exton, Pennsylvania 19
(610) 524-3500
(610) 524-7335 (fax)

16 January 1995
Reference: 34309.09.01

Mr. Andrew L. Shiels
Endangered Species Coordinator
Pennsylvania Fish and Boat Commission
Division of Fisheries Management
450 Robinson Lane
Bellefonte, PA 16823-9620

ERM

Dear Mr. Shiels:

It is my understanding from our phone conversation on 9 January, 1995, that PF&BC utilizes the PNDI database for its threatened and endangered species information needs. For this reason I would like to inform you that I am referring questions regarding the existence or non-existence of the branching bur-reed in the vicinity of the proposed York County Energy Partners Cogeneration Facility to Ms. Kathy McKenna of the Pennsylvania Natural Diversity Inventory (PNDI).

I appreciate your time and consideration and if you have any questions or additional comments, I can be reached at (610) 524-3627.

Sincerely,

Daniel P Synoracki

Daniel P. Synoracki
Sr. Project Scientist

DPS:tma
cc: Dr. Suellen A. Van Ooteghem, US Department of Energy
Ms. Kathy McKenna, Pennsylvania Natural Diversity Inventory
Mr. Gary D. Kinsey, York County Energy Partners, L.P.

YORK
York County Energy Partners™

York County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

January 17, 1995

Mr. William G. Browne
Environmental Engineer
U. S. Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, PA 19107-4431

SUBJECT: Best Available Control Technology (BACT) Analysis
York County Energy Partners (YCEP) CFB Boiler
U. S. Department Of Energy Draft EIS Review Process

Dear Mr. Browne:

During the January 3, 1995 meeting with the U. S. Environmental Protection Agency (EPA), U. S. Department of Energy (DOE) and York County Energy Partners, L.P. (YCEP), EPA requested that YCEP provide the background information on the BACT analysis for the subject Draft EIS. The technical information for the BACT analysis had been submitted to the Pennsylvania Department of Environmental Resources (PA DER) as part of the PSD permit application process.

Please find enclosed a technical report prepared by YCEP being submitted to EPA for your consideration and use when reviewing the DOE Draft EIS for the subject project. This technical report provides the background information on the proposed facility's air emissions, the BACT analysis technical information and the conclusions on the control technologies being proposed as BACT.

Please review this technical report. If you should have any questions or need additional information, please contact me at (610) 481-4029.

Sincerely,

Gary D. Kinsey, P.E.
Manager, Environmental Affairs

cc: Ms. Diana Esher, EPA Region III
Mr. Roy Denmark, EPA Region III

Mr. Ronald Davis, PA DER Southcentral Region
Dr. Jan Wachter, DOE Morgantown Energy Technology Center

COMMONWEALTH OF PENNSYLVANIA

PENNSYLVANIA GAME COMMISSION

2001 ELMERTON AVENUE
HARRISBURG, PA 17110-9797

ADMINISTRATIVE BUREAUS:

ADMINISTRATION	717-787-5670
AUTOMOTIVE AND PROCUREMENT DIVISION	717-787-6594
LICENSE DIVISION	717-787-2084
PERSONNEL DIVISION	717-787-7836
WILDLIFE MANAGEMENT	717-787-5529
INFORMATION & EDUCATION	717-787-6286
LAW ENFORCEMENT	717-787-5740
LAND MANAGEMENT	717-787-6818
REAL ESTATE DIVISION	717-787-6568
MANAGEMENT INFORMATION SYSTEMS	717-787-4076

January 18, 1995

Dr. Suellen A. Van Ooteghem
U.S. Department of Energy
Environmental Project Manager
3610 Collins Ferry Road
Morgantown, WV 26505

In re: York County Energy Partners
Cogeneration Site and Transmission Line Corridors
North Codorus Township, York County, PA

Dear Dr. Van Ooteghem:

This is in response to Mr. Synoracki's letter of January 16, 1995, requesting information concerning endangered and threatened species of birds and mammals as related to this project.

Our office review has determined that no state listed endangered or threatened species are known to occur within the proposed project area. Except for occasional transient individuals, this project should not impact any endangered or threatened species of birds or mammals recognized by the Pennsylvania Game Commission. However, should project plans change or if additional information on endangered or threatened species becomes available, this determination may be reconsidered.

If you have any questions, please contact Roland Bergner of my staff at (717) 783-4919.

Very truly yours,

Denver A. McDowell, Chief
Division of Environmental Planning
and Habitat Protection
Bureau of Land Management

HRG Herbert, Rowland & Grubic, Inc.
1846 Charter Lane, Lancaster, PA 17601
FAX (717) 291-2093 (717) 291-1783

January 19, 1995

Mr. Blaine Markel
York County Conservation District
118 Pleasant Acres Road
York, Pennsylvania 17402

RE: York County Energy Partners
Erosion & Sediment Control Plan
North Codorus Township

Dear Mr. Markel:

The enclosed plans, narrative, and calculations for the referenced project have been revised per your review letter dated December 23, 1994. The revisions, listed in the order of your comments, are as follows:

Cogeneration Facility Site (Sheets 1 - 6 of 6)

1. No response required.

2. A revised application has been enclosed (see attached).

3. The revision date has been indicated on both the plans and the narrative per your request (see plans and narrative).

4. The soil type use limitations from Table 6 of the York County Soil survey have been included in the plan narrative (see narrative pages 22 - 23).

5. The seed mixtures have been revised to include a grass mix for both normal conditions and wet/moist conditions (see narrative page 35 and plan sheets 3 and 5 of 6, 2 of 2, and 1 of 4).

6. Lime and fertilizer types/rates have been included for permanent stabilization (see narrative pages 35-36 and plan sheets 3 and 5 of 6, 2 of 2, and 1 of 4).

7. The limits of construction has been added to the plan and is indicated in the legend as the "Limits of Disturbance" (see plan sheet 2 - 5 of 6).

8. An access area to the stockpile has been provided through the earth berm at the high point between swales nos. 2 and 3 (see plan sheet 2 of 6).

9. A detail for the earth berm has been provided (see Earth Berm Detail, Sheet 6 of 6).

10. The installation of swale no. 1 has been clarified in the construction sequence (see Phase I Construction Sequence, item no. 23, plan sheet 3 of 6 and narrative page 27).

11. The channel calculations have been revised as requested to determine velocity based upon the maximum channel slope and capacity based upon the minimum channel slope. The calculations have been further refined to include an analysis of the velocity and capacity based upon bare earth conditions, geotextile lining conditions, and permanent stabilization conditions of either grass or rip-rap lining (see narrative/calculations pages 59 - 91).

12. See response no. 11 above.

13. The construction sequence has been revised to clarify the installation of the storm inlets (see Phase I Construction Sequence, items no. 6, 10, 14, 16, 20, 23, and 25, plan sheet 3 of 6 and narrative pages 25 - 28).

14. Typically parabolic channels can be constructed with standard construction equipment. While they may take addition effort to construct due to the additional fine grading involved, "specialized" construction equipment is not required. Additionally, parabolic swales are recognized as suitable conveyance systems all hydraulic design manuals, including the Engineering Field Manual for Conservation Practices, (U.S.) Soil Conservation Service, July 1984, Chapter 9, and PA DOT Design Manuals, Publication 408.

15. A general note has been added indicating that stockpiles left idle for more than 20 days must be stabilized (see General Note 24, sheet 3 of 6).

16. A sediment basin has been provided downslope of the temporary parking/ construction trailer/laydown area west of the existing macadam access drive to intercept any runoff from this area prior to leaving the site (see plan sheet 3 of 6, Details and Sections, sheet 6A of 6 and calculations, narrative pages 98 - 116).

17. A culvert has been provided at construction entrance C along Colonial Valley Road to convey the existing roadside runoff under the access drive (see plan sheet 3 of 6).

18. The silt fence north of the existing rail line has been removed (see sheet 3 of 6).

19. The rock filters have been removed from the silt fence where previously shown on the plan and the detail has been removed from the detail sheet (see plan sheets 2 - 6 of 6).

20. The culvert referenced will discharge the storm water runoff from the upland drainage area previously conveyed by the existing "channel" located west of the project area. As in the pre-development condition, this runoff will be conveyed further down stream by the "gully" area adjacent to the York Rail Line (see plan sheet 3 of 6).

21. As previously noted, a sediment basin has been provided upslope of HW 3 eliminating the potential for sediment laden runoff exiting the project area at this location (see sheet 3 of 6).

22. The temporary parking/construction trailer/laydown area west of the existing P.H. Glatfelter property will be either seeded or planted with a "conservation" type crop following construction. This area has been delineated on the plan (see plan sheets 4 and 5 of 6).

23. The construction sequence has been revised to include a more detailed description regarding the installation of construction entrance (B) (see Phase I Construction Sequence, Item 16, plan sheet 3 of 6 and narrative page 26).

24. Sediment traps and temporary diversion channels have been added in this area to intercept upland runoff from the construction area upslope of wetland area B (see plan sheet 2 of 6, Details, sheet 6A of 6, and calculations, pages 117 - 120).

Off-site Utility Pipeline Routing (Sheets 1 - 2 of 2)

25. A mapping legend has been provided as requested (see plan sheet 1 of 2).

26. Due to the scale of the plan (1" = 200') the location of silt fence for pipe line construction has been shown as a typical location on the Utility Trench Excavation Detail (see plan sheet 2 of 2).

27. The proposed pipelines in the vicinity of the wetland areas along Rockery Road will either be located in the paved area or the immediate shoulder of the road and not in the delineated wetland areas. The pipeline shown on the plans is graphic in nature due to the plan scale and is not intended to encroach on any wetland areas. If, upon further design refinement or realignment occurs which will affect the wetland areas, appropriate permits will be obtained.

28. The typical limits of disturbance for pipeline construction have been shown on the Utility Trench Excavation Detail. Due to the scale of the drawings, a actual delineation of the line on the plan is not feasible (see plan sheet 2 of 2).

29. A rock filter berm has been included on the plan (see Rock Filter Detail, plan sheet 2 of 2).

30. See response no. 28 above.

Electric Line Corridor (Sheets 1 - 4 of 4)

31. The detail Temporary Construction Access Road has been revised to indicate AASHTO No. 1 stone in lieu of AASHTO No. 57 stone (see detail, plan sheet 1 of 4).

32. A note has been added indicating that all wetlands within the construction area must be fenced prior to construction (see note, plan sheet 2 of 4).

33. The plan notation regarding clearing and grubbing indicates "as required". Clearing and grubbing will not be required at wetland area 14 since there are no trees or other types of substantial vegetation in this area (see plan sheet 2 of 4).

34. Appropriate permitting procedures for any encroachments of wetland areas will be applied for as part of the overall permitting process for this project.

35. A note has been added indicating that clearing and grubbing will not occur within 50′ of the West Branch of the Codorus Creek without DER approval (see note, plan sheet 3 of 4).

If you have any questions regarding the revisions described above, or the project in general, please feel free to contact me.

Sincerely,

HERBERT, ROWLAND & GRUBIC, INC.

Ernest J. Graham, RLA

EJG:sg
2936.019

Enclosures

cc: Debbie Platts, AP&CI

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
P.O. Box 8552
Harrisburg, PA 17105-8552
January 20, 1995

717/787-3444

Bureau of Forestry

Mr. John Garland
Department of Energy, Morgantown Energy Technology Center
P.O. Box 880, Collins Ferry Road
Morgantown, WV 26507-0880

Dear Mr. Garland:

Re: Threatened and Endangered Species Review of the York County Energy Partners Cogeneration Project North Codorus Township Site and Associated Transmission Line Rights-of-Way, York County, Pennsylvania.

This letter documents our phone conversation of January 20, 1995, in response to a letter from Mr. Jan Wachter of your agency, dated January 6, 1995. The historic record of an endangered plant species, *Sparganium androcladum*, Branching bur-reed near the referenced site, cited in a letter from the Pennsylvania Fish & Boat Commission dated July 13, 1994, was investigated during our reviews of the site conducted at the Bureau of Forestry in April 1992, August 1993, and December 1994, using the Pennsylvania Natural Diversity Inventory (PNDI) information system. PNDI is a site specific information system which describes significant natural resources of Pennsylvania. PNDI includes data descriptive of plant and animal species of special concern, exemplary natural communities and unique geological features.

The only record of Branching bur-reed in this vicinity is an herbarium specimen collected in 1938 from a reservoir northeast of Hanover. More recent field work has failed to relocate the species in this area. PNDI has no record of suitable habitat for *Sparganium androcladum* at or near the referenced site, therefore, we do not anticipate any impact on this or any other species of special concern due to this project.

Sincerely,

Edward T. Dix
Botanist
Forest Advisory Services

An Equal Opportunity/Affirmative Action Employer

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York County Energy Partners

York County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

January 26, 1995

Mr. Ronald M. Davis
Air Pollution Control Engineer
Pennsylvania Department of Environmental Resources
Southcentral Regional Office
One Ararat Boulevard
Harrisburg, PA 17110-9720

SUBJECT: Metals Emission Limits for PSD Plan Approval
York County Energy Partners 227 MW Cogeneration Facility
North Codorus Township, York County
File No.: 67-306-007

Dear Mr. Davis:

As we discussed on Wednesday, January 25, 1995, the Department requested that York County Energy Partners (YCEP) provide additional information on mercury and beryllium emission values for coal combustion. The additional information is required to assure the metal emission limits which would be included in the draft PSD Plan Approval document are based on Best Available Control Technology (BACT) information.

Please consider the following information when finalizing the emission limits in the draft PSD Plan Approval document.

- The beryllium and mercury content of the bituminous coal supply will have natural variability. An EPA publication, "Estimating Air Toxics Emissions from Coal and Oil Combustion Sources", EPA-450/2-89-001, dated April 1989, provides concentrations for these metals based on coal types. In an analysis of 3527 samples of bituminous coal, the beryllium content had a mean of 2.22 ppm and a

standard deviation of 1.66 ppm and the mercury content had a mean of the 0.21 ppm and a standard deviation of 0.42 ppm.

- Since the natural variability in the coal content cannot be controlled, this variability must be factored into the emission analysis. Based on the statistical data, to obtain a 95% predicted level in any given coal sample, the sample would fall within two standard deviations from the mean. To meet a 95% predicted level, the bituminous coal would have a maximum beryllium content of 5.54 ppm and a maximum mercury content of 1.05 ppm. These metal levels would be used in the YCEP analysis.

- Based on the 1.05 ppm mercury level and no removal efficiency credit in the combustion process, a mercury emission limit for the proposed YCEP boiler would be 8.3 E-05 lbs/mmbtu. Based on the 5.54 ppm beryllium level and a 98% removal efficiency in the combustion process, a beryllium emission limit for the proposed YCEP boiler would be 8.7 E-06 lbs/mmbtu. These emission limits are similar to the limits proposed in the YCEP letter dated January 12, 1995.

Please also find attached a copy of the approval received from the Bureau of Mining and Reclamation, Pottsville field office for use of the YCEP ash byproducts as reclamation material at the Harriman Coal Corporation site in Schuylkill County.

If you have any questions or need additional information, please contact me.

Sincerely,

Gary D. Kinsey, P.E.
Manager, Environmental Affairs

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

One Ararat Boulevard, Room 126
Harrisburg, Pennsylvania 17110

January 26, 1995

717-657-4590

Southcentral Regional Office

Mr. Gary D. Kinsey, P.E.
Manager, Environmental Affairs
York County Energy Partners
25 South Main Street
Spring Grove, PA 17362

RE: DER File No. PAS-10-Y009-1

Dear Mr. Kinsey:

This letter is in reference to your January 5, 1994 response to our concerns regarding your application for an Individual NPDES Permit for Discharges of Storm Water from Construction Activities at the proposed cogeneration facility in York County.

We have reviewed this information in detail and request that you address the following concerns:

1. The Department has been advised that the baseball diamond area was used as a disposal site for boiler waste, lead bearing paints chips, asbestos and pond sludge in the late 1960's. Please provide a detailed technical response to this concern.

2. The above referenced correspondence indicates 40 subsoil core borings were drilled; however, the results for only seven locations were described. Please provide the test results for the remaining borings and include any pertinent soil testing results included in the final Phase Two Environmental Assessment Report.

3. The location map provided does not include the locations of the B-4 sample or the sediment sample. Please provide these locations along with the locations on any additional sampling points requested above.

In the event that waste material is encountered during the excavation and grading stage of this project, please contact the Department's Regional Waste Management Program at 717-657-4588.

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If you have any questions regarding these requests, please contact me at 717-657-4590.

Sincerely,

Raymond P. Zomok, P.E.
Chief, Soils & Waterways Section
Water Management Program

cc: Cumberland County Conservation District

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

One Ararat Boulevard, Room 126
Harrisburg, Pennsylvania 17110
January 26, 1995

717-657-4590

Southcentral Regional Office

Richard C. Kenner, Vice President
York County Energy Partners
25 South Main Street
Spring Grove, PA 17362

Dear Mr. Kenner:

This will acknowledge receipt of your notification (copy enclosed) and registers your use of a General Permit acknowledged by the Department. You are responsible for assuring the work is done in accordance with the drawings and conditions contained in the General Permit. You may proceed with your project after making the required notifications stipulated in the General Permit and securing all other approvals that may be necessary.

If you should have any questions concerning this acknowledgment, please contact me at the above telephone number.

Sincerely,

Charles Rennard
Charles W. Rennard, Clerk
Soils & Waterways Section

Enclosure(s) - Exhibit(s)

Copies of Exhibit(s) sent to:
Pa. Fish & Boat Commission
County Conservation District
U.S. Army Corps of Engineers

Recycled Paper

Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
3610 Collins Ferry Road
Morgantown, West Virginia 26507-0880

January 27, 1995

Mr. William R. Scharadin
Chairman, EMF Team
Metropolitan Edison Company
P.O. Box 16001
Reading, PA 19640

Dear Mr. Scharadin:

I have written at the suggestion of Ms. Maria Frederick, who was contacted by a member of my staff on January 20, 1995, regarding Met-Ed's response to electromagnetic field (EMF) concerns. I am currently directing the preparation of an environmental impact statement (EIS) for the proposed York County Energy Partners Cogeneration Facility near Spring Grove, Pennsylvania. This joint demonstration project is between York County Energy Partners and the U.S. Department of Energy, under the Department's Clean Coal Technology Program.

During the public comment period for the EIS, we received some comments from citizens concerned about the hazards of EMFs. Their concerns were focused on the proposed electric interconnect transmission line and substation expansion for the project, but some concerns were expressed regarding existing facilities as well.

In the process of responding to these concerns, John Garland of my staff contacted Met-Ed and spoke with Ms. Frederick. She was very helpful and explained Met-Ed's standard procedures for handling routine customer inquiries regarding EMFs, and the company's proactive offer to take readings in customer homes, if they so desire. However, she recommended that we contact you for some of our more specific questions. With that in mind, I would appreciate any assistance or information you could provide concerning the following:

- Does Met-Ed take EMF readings at, or near, any of their existing substation facilities, and if so, is that information available? Specifically, is any information available for the Bair Substation, near Spring Grove?

- Does Met-Ed have computer modeling capability that would predict the potential EMF that could result from addition of new facilities to the existing configuration?

We are currently reviewing the most recent scientific literature available for research associated with EMFs and human health effects. As you know, the research results are largely inconclusive. However, we would like to provide the inquiring public with as much information as possible, including approximations of existing field intensities, and the potential for field intensity change from the addition of new facilities. Primarily, we are concerned more with magnetic fields than we are electric fields, and any insights you could provide on these matters would be greatly appreciated.

If you have any questions, please call John Garland (304-285-4754) or me (304-285-4607).

Sincerely,

Jan K. Wachter
Director
Environment, Safety and Health
Program Support Division

YORK
York County Energy Partners

York County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

January 27, 1995

Mr. Raymond P. Zomock, P.E.
Chief, Soils and Waterways Section
Department of Environmental Resources
Southcentral Region - Water Management Program
One Ararat Boulevard
Harrisburg, PA 17110

SUBJECT: Wetland Delineation Reports and
Corps of Engineers Jurisdictional Determinations
York County Energy Partners, L.P. Project
North Codorus Township, York County

Dear Mr. Zomock:

During our meeting on 22 December 1994, York County Energy Partners, L.P. (YCEP) reviewed the various wetland field delineations which had been conducted for the subject facility. These wetland delineations were conducted and the final investigation reports were prepared by Environmental Resources Management, Inc. (ERM). The purpose of this letter is to provide the Department with the technical information on the wetland reviews and the regulatory procedures which would be followed to address wetland impacts. This information is being provided for the Department's review of the project related activities.

TECHNICAL INFORMATION:

Please find enclosed a three ring binder which includes the three (3) wetland investigation reports and two (2) U. S. Army Corps of Engineers determination letters which provides the technical information for the Department's review and use. The three wetland investigation reports include the project description, wetland investigation

findings, potential impacts, engineering drawings and color photographs on the following areas:

- The main plant site which is the 36 acre area where the proposed facility would be constructed. No wetland areas were identified in areas where physical construction would occur.

- The proposed roadway improvements for the PA Routes 516 and 116 interchange. This interchange is located adjacent to the proposed plant site and would be upgraded to improve traffic conditions. No wetland areas were identified in areas where physical construction would occur.

- The underground utility line corridor which is the area where the water supply and waste water return pipelines would run between the proposed YCEP facility and the P. H. Glatfelter secondary effluent treatment facility.

- The overhead electrical interconnection line which would run east from the proposed YCEP facility to the utility company's electrical tie-in near an existing substation located near the town of Bair. The electrical interconnection line would span wetland areas, but no physical construction would occur in these areas.

The U. S. Army Corps of Engineers, Baltimore District office conducted two separate field inspections, one for the plant site (June 1993) and another for all the other areas (November 1994), to complete verification of the delineations and provide jurisdictional determinations. Please find copies of the two jurisdictional determination letters received from the U. S. Army Corps of Engineers.

REGULATORY INFORMATION:

The proposed YCEP construction activities were planned with the goal of avoiding impacts to existing wetland areas. If any impacts did occur, the goal would be to minimize these impacts. The wetland investigations determined that the following areas would need to be addressed:

1. The underground utility line corridor would cross four (4) small wetland areas which were identified during the wetland investigation. The impacts to wetland

areas #4, #12, #13 and #14 would consists of a temporary impacts during the installation of the underground lines. Wetland areas #4, #13, and #14 are unnamed tributaries draining into the Codorus Creek. These wetland areas are identified on Drawing 2 of 4 in the Electrical Interconnect and Utility Corridors Wetland Investigation Report dated 13 October 1994.

A 25 foot wide construction corridor is needed to install the utility lines. The total length of wetland areas impacted in this 25 foot corridor is approximately 200 feet resulting in the total temporary impact of 5000 square feet. After installation of the utility lines, the wetland areas which were disturbed would be revegetated and returned to existing natural conditions. The construction activities would be conducted in accordance with the Bureau of Dams and Waterways Management, General Permit (BDWM-GP-5), Utility Line Stream Crossings.

2. The electrical interconnection line would be an aerial crossing of several existing wetland areas identified during the wetland investigation. These wetland areas are identified on the four (4) drawings in the Electrical Interconnect and Utility Corridors Wetland Investigation Report dated 13 October 1994. None of the wetland areas would be impacted during the electrical interconnection construction activities (i.e., installation of utility poles and lines).

   The electrical interconnection line aerial crossings would be covered under the Bureau of Dams and Waterways Management Chapter 105, Section 105.12, entitled Waiver of Permit Requirements. The waiver applies to this activity since it is an aboveground installation of one or more wires to single poles. These aerial crossings take place across nonnavigable streams or wetland areas which are not located in a Federal wilderness area or watercourse or body of water designated as a wild or scenic river under the Wild and Scenic Rivers Act of 1968 or the Pennsylvania Scenic Rivers Act.

If you have any questions or need additional information, please contact me.

Sincerely,

Gary D. Kinsey, P.E.
Manager, Environmental Affairs

YORK COUNTY RAIL TRAIL AUTHORITY
"York County Heritage Rail/Trail, Northern Central Division"
400 Mundis Race Road, York, PA 17402
Telephone: 717-771-9440

January 30, 1995

Ms. Jan K. Wachter
Director, Environment, Safety and Health Program Support
Department of Energy Technology Center
P. O. Box 880
Collins Ferry Road
Morgantown, West Virginia 26507-0880

Dear Ms. Wachter:

As a follow-up to my conversation with Mr. John Garland, I have enclosed some information about the York County Rail Trail Authority, a map showing the Hanover Trolley Line Right of Way and a typical trail section.

I apologize for the delay in getting this to you. Please do not hesitate to contact me if you have any questions.

Sincerely,

Timothy C. Fulton
Chairman,
York County Rail Trail Authority

YORK COUNTY RAIL TRAIL AUTHORITY

In 1990, The York County Rail Trail Authority was established by the York County Board of Commissioners. The purpose of the Authority is to acquire, construct, improve, maintain, and operate projects for transportation and for parks, recreation grounds and facilities in and along the former Northern Central Railway line and along any other rail line, or other property hereafter acquired or held by the Authority or other land as may be designated by the York County Commissioners. Power has been conveyed to the York County Rail/Trail Authority to conduct business for the County of York in regard to proper care, control, supervision and development of these properties. (exhibit A). The goal of the Authority is to provide a safe, convenient non-motoized use transportation corridor for the Greater York area connecting parks, boroughs, townships, and open space. To achieve this goal funding is needed.

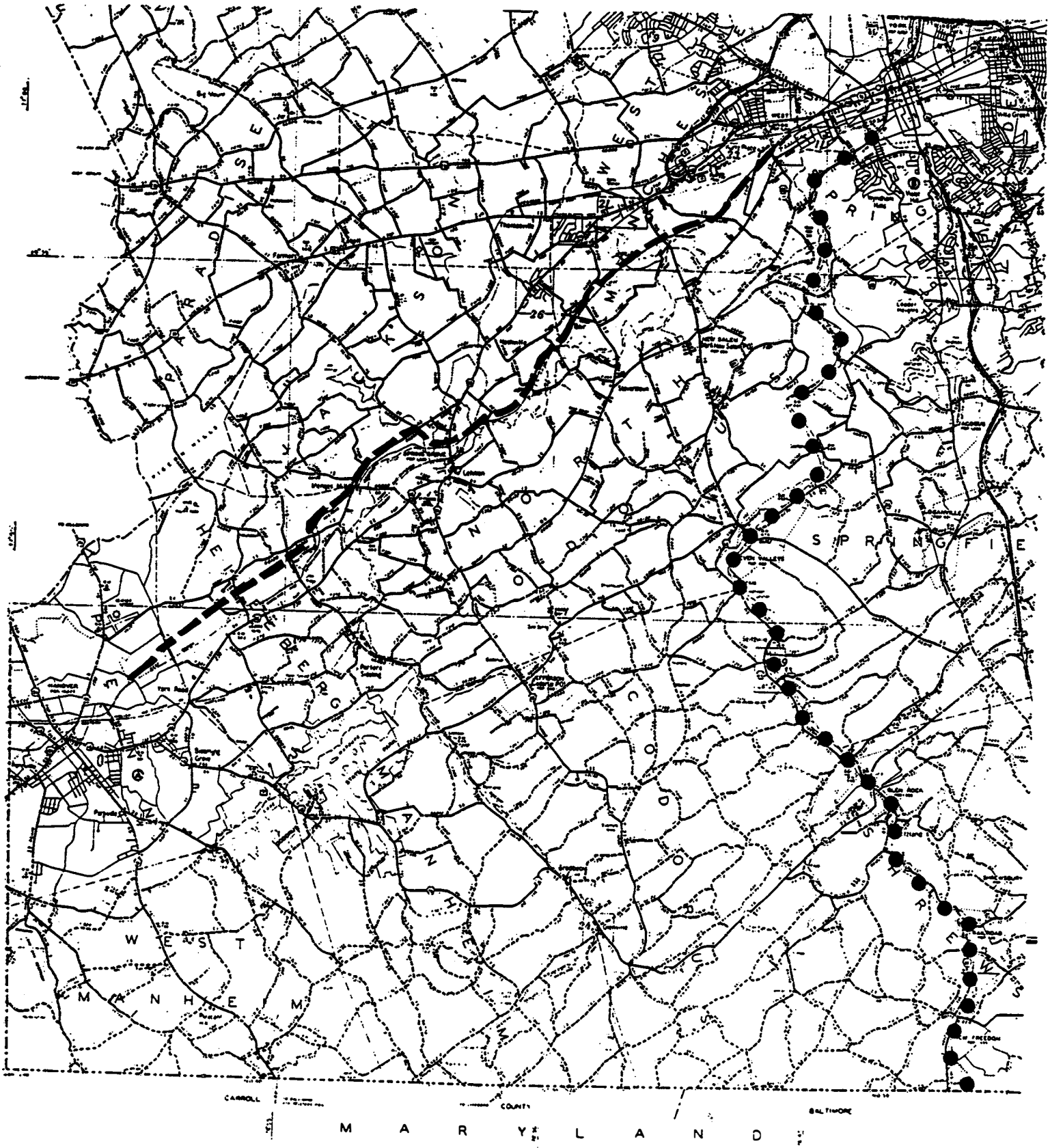
In 1977 A York Metropolitan Area Bike Route Plan was prepared. This study was initiated because of the increasing bicycling demands in the York Area. The study highlighted certain areas to be developed. The York County Rail Trail Authority is actively working on developing two major trails sited in this study (exhibit B).

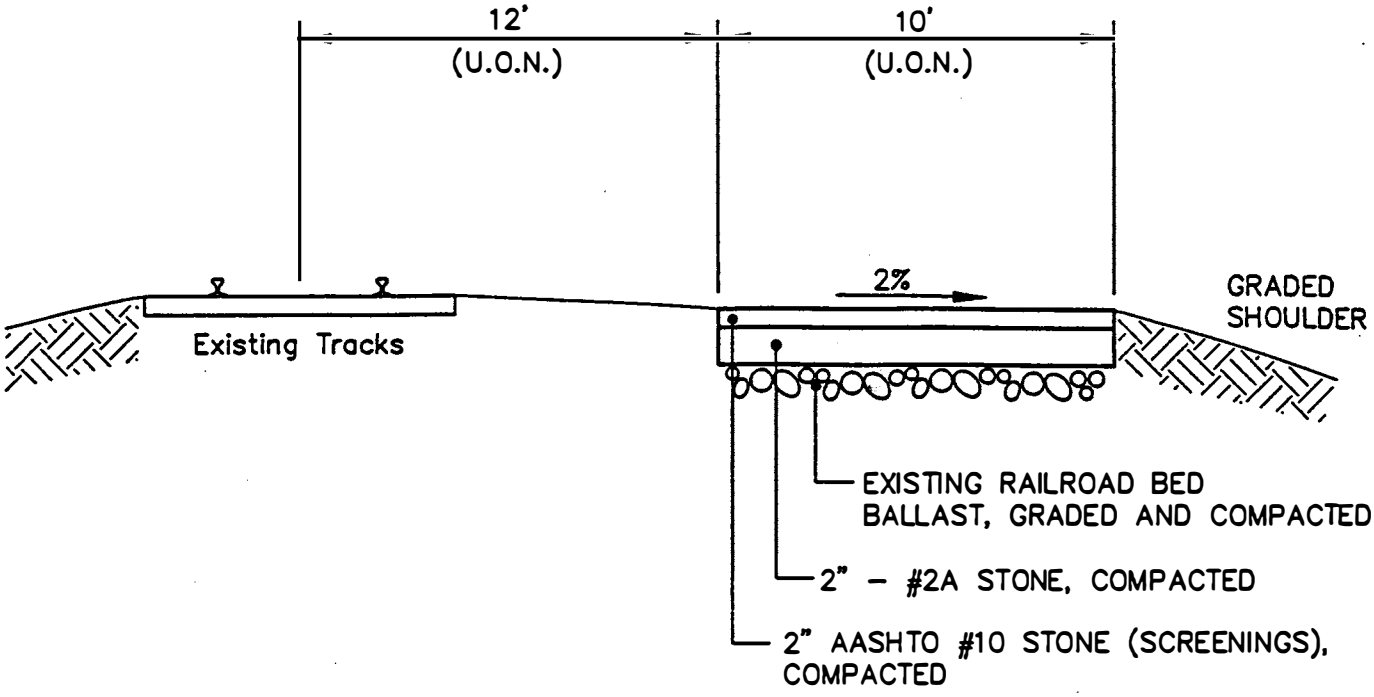
The first proposed trail is the 20.5 mile corridor along the former Northern Central Railroad right of way. The greenway runs from York City to the Maryland State line.

The second opportunity for trail development would be the 15 mile corridor which runs for York City to Hanover. The corridor was formerly used for trolley car transportation.

The development of these two trails and additional trails will enrich the Greater York area is many ways including economically, recreationally, and historically. The project which the Authority has place a higher priority on is the completion of the Northern Central greenway.

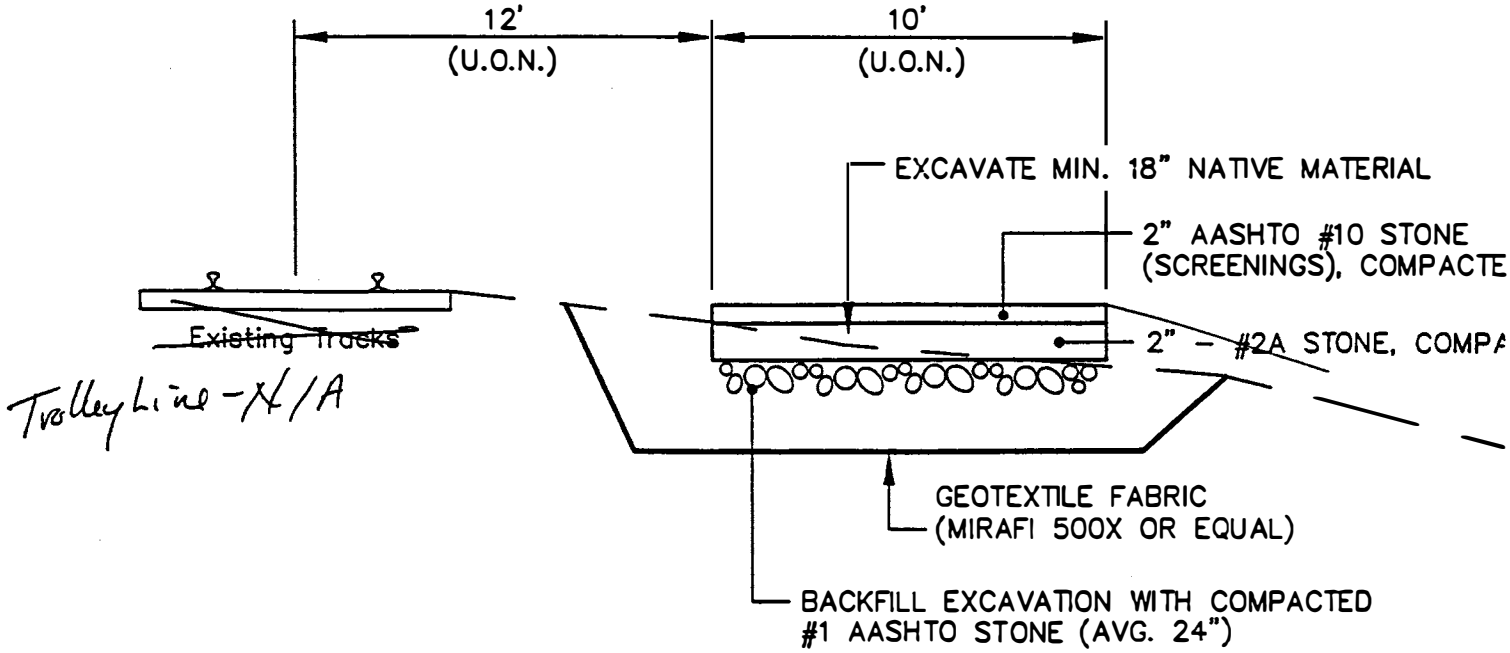
YORK - HANOVER TROLLEY LINE RIGHT OF WAY





TYPICAL TRAIL SECTION B

N.T.S.



TYPICAL TRAIL SECTION C

COMMONWEALTH OF PENNSYLVANIA

PENNSYLVANIA GAME COMMISSION

2001 ELMERTON AVENUE
HARRISBURG, PA 17110-9797

ADMINISTRATIVE BUREAUS:
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MANAGEMENT INFORMATION SYSTEMS.....717-787-4076

January 30, 1995

Mr. Jan K. Wachter
Director, ES&H Program Support Division
DOE/METC
P.O. Box 880
Morgantown, WV 26507-0880

In re: Draft Environmental Impact Statement (DEIS)
Proposed York County Energy Partners Cogeneration Facility
York County, PA

Dear Mr. Wachter:

The Pennsylvania Game Commission has completed its review of the Draft Environmental Impact Statement for the above referenced project. Based on that review, a field view of the project site conducted on January 6, 1995 by Roland Bergner of my staff, and the meeting at our office on January 23, 1995, we concur with the selection of the Flood Control Property (FCP) alternative as the preferred electric interconnect corridor alternative. We feel that this alternative meets project needs and objectives with the least impacts to residences and private property owners. Even though there will be some impacts to wildlife habitat, these can be addressed through proper mitigation.

We wish to assist York County Energy Partners with the development of the wildlife mitigation plan during the final design process. As discussed at the meeting on January 23, there are certain items we wish to see incorporated into the mitigation plan. These are as follows:

1. The riparian areas along Codorous Creek which will be cleared for the transmission line should be planted with various low growing shrub species to replace lost wildlife habitat.

2. The construction of the transmission line through that portion of the FCP leased to the Pennsylvania Game Commission should be coordinated with our agency to avoid conflicts with hunting seasons, farming, and other management activities.

3. Wood duck nesting boxes and other waterfowl nesting structures should be placed along Codorous Creek to replace any large trees which will be removed in order to increase breeding habitat for these species. Also, kestrel nesting boxes, bat boxes, and other wildlife nesting/resting structures could be placed on the single-shaft steel or wooden poles which will support the transmission line.

4. We recommend that planting of warm season grass species be included in the wildlife habitat mitigation plan. Warm season grasses provide both food and cover for wildlife at different times of the year, and they survive with less moisture and fertility than cool season grasses.

5. Brush piles should be constructed with vegetation that is cleared/trimmed for pole and transmission line placement to provide cover for wildlife.

In our comments in relation to the Electric Interconnection Alternatives and Avoidance Study dated June 1994, we made reference to Section 4(f). We wish to delete this reference to Section 4(f) from our review. Even though the proposed transmission line will be constructed on FCP which is a recreation area and used by the public, Section 4(f) is included in the United Stated Department of Transportation Act of 1966 (amended 1968); and is used to evaluate federally-aided highway projects with involvement with public parks, recreation lands, and wildlife and waterfowl refuges.

Prior to initiating construction of the transmission line, we recommend that York County Energy Partners contact Mr. Roger L. Lehman, Chief, Game Land Planning and Development Division at (717) 787-9613, and Mr. Richard J. Skubish, Land Management Group Supervisor, through our Southeast Regional Office in Reading at (610) 926-3136. Mr. Lehman and Mr. Skubish wish to assist York County Energy Partners in regard to recommended plantings and other wildlife habitat mitigation measures in relation to the proposed project.

If you have any questions or need any additional information in regard to our comments, please contact Mr. Roland Bergner of my staff at (717) 783-4919.

Very truly yours,

Denver A. McDowell, Chief
Division of Environmental Planning
and Habitat Protection
Bureau of Land Management

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107-4431

JAN 30 1995

Dr. Suellen Van Ooteghem
Department of Energy
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26507-0880

RE: York County Energy Partners (YCEP) Cogeneration Project, York County, Pennsylvania.

Dear Dr. Van Ooteghem:

In accordance with the requirements of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, EPA has reviewed the Draft Environmental Impact Statement (DEIS) for the above referenced project. EPA has rated the DEIS, "EC-2" (Environmental Concerns- Insufficient Information) based on our concern that the air emissions and solid waste stream could be further reduced and based on deficiencies in the Health Assessment conducted for this project. A copy of EPA's rating system is attached.

Reductions in the proposed YCEP coal-fired cogeneration facility's emissions are feasible using new commercially available control technology. These reductions can be achieved by the following:

1) use of an inert material (e.g., sand) to stabilize the fluidized bed operation;
2) use of Selective Catalytic Reduction (SCR) technology for the control of nitrogen oxides (NO_x);
3) use of ammonia scrubbing to reduce sulfur dioxide (SO_2) emissions;
4) use of more efficient fabric filters to reduce emissions of particulate matter under 10 microns in size (PM_{10}).

These changes would also result in substantial reductions in the quantities of solid waste produced by the facility. Incorporation of these recommended emission control technologies in the YCEP project will substantially improve its expected environmental performance.

EPA also recommends that the Health Assessment for the proposed project be revised in light of recent studies which have demonstrated strong associations between mortality and fine-particulate air pollution. The 1992 Health Assessment does not provide adequate treatment of the potential health effects from particulate emissions, their toxic components, and acid aerosols.

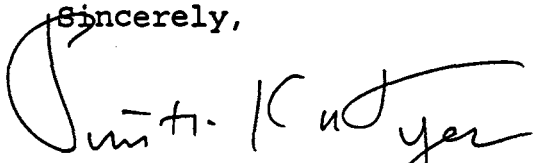
The attached technical comments identify commercial technologies that would allow significant reductions in air emissions. EPA will provide a final review of the BACT issues upon review of the Pennsylvania plan approval (PSD permit). To resolve these issues in a timely manner, we would like to establish a meeting with the Department of Energy, the YCEP technical staff, the Pennsylvania Department of Environmental Resources (PADER), and selective pollution control technology representatives to discuss means to reduce air emissions from the proposed facility. Please contact William G. Browne of my staff at 215-597-9858, and John Slade, Chief, Permits Division at PADER to establish an acceptable meeting date.

EPA raised additional concerns about this project during our January 3, 1995 meeting with representatives from the Department of Energy and York County Energy Partners, L.P. These concerns were in regard to the possibility of threatened and endangered species occurring in the project area, reported fogging and icing events, cooling tower emission impacts, wastewater discharge characteristics, and the depletion of area coal reserves. Subsequent concerns were also raised regarding the description of the no-action alternative.

These additional concerns have all been resolved based on information provided to us by the Department of Energy. Since the additional information provided to us concerning some of these issues was either absent or unclear in the Draft EIS, we recommend that the Final EIS include this information to clarify the issues. The Final EIS should include: recent letters from Pennsylvania resource agencies regarding threatened and endangered species, a re-evaluation of the assumptions used in the model chosen for fog/ice analysis, discussion of existing fog/ice events, statistics on the impacts to state and national coal reserves, and the rationale for not including associated air emission reductions in the no-action alternative.

We appreciate the many opportunities we have had to discuss this project with the Department of Energy and YCEP. We look forward to resolving the remaining issues with this project.

Sincerely,



Peter H. Kostmayer
Regional Administrator

Attachments

York County Energy Partners Cogeneration Facility
Draft Environmental Impact Statement[1]
Technical Comments

William G. Browne, Environmental Engineer
U.S. EPA Region III

Chapter 4. Environmental Consequences - analyzes the potential impacts to human and environmental resources that would be expected to result from construction and operation of the proposed York County Energy Partners (YCEP) Cogeneration Facility at the North Cordorus Township site. Health risk assessments have been made of potential air emissions from the proposed project to persons in the affected communities.

A health assessment study[2] conducted when the project was initially proposed to be located in West Manchester Township was issued in 1992. This study provides a detailed discussion of the potential effects to human health of expected emissions, including particulate matter (PM_{10}), based on a review of the scientific literature.

Chronic human health risks from the acid gases SO_2 and NOx from the boiler stack emissions were assessed. The findings from human epidemiology studies on sulfur dioxide (SO_2) effects were summarized[3] as follows:

> "Excess mortality has been clearly associated with historic air pollution episodes, where sulfur dioxide (SO_2) exposures have been ~ 3,100 $\mu g/m^3$ with correspondingly high concentrations of acid aerosols. Modern epidemiologic studies concentrate on respiratory illness rather than excess mortality. Communities with mean (annual) aerosol concentrations of 105-325 $\mu g/m^3$ usually experience more asthma, bronchitis, and upper respiratory infections than communities with 18-21 $\mu g/m^3$ exposures. In a study conducted in Pennsylvania, community increases in respiratory disease were not detected in mean annual exposures of 92 $\mu g/m^3$."

The finding from human epidemiology studies on oxides of nitrogen (NOx) effects was summarized[4] as follows:

> "Respiratory symptoms were not observed with outdoor exposures of 12-80 $\mu g/m^3$ in a Chestnut Ridge, PA study; a California 7th Day Adventist study did not correlate any symptoms with NOx exposure. An indoor air quality study related to gas stove use indicated an excess of infection at NOx levels of 31-216 $\mu g/m^3$; however, many other studies did not correlate increased respiratory symptoms with gas stove use. Others believed that results from indoor exposure to NOx levels from gas stoves is difficult to extrapolate to outdoor environments."

The findings of research studies on particulate emissions was reported[5] as follows:

> "Particulate matter (PM_{10}) is not considered to be a toxic substance, per se. Therefore, the EPA has not published any chronic toxicity values for particulate matter. There is uncertainty concerning the physiologically active component of particulate emissions. Acid aerosols (measured as hydrogen ion concentrations [H^+], sulfuric acid [H_2SO_4], or sulfate [SO_4] may be the most important. Most of the research studies conducted on health effects due to particle exposure have dealt primarily with sulfuric acid (H_2SO_4) exposures."

Health risk assessments for particulate matter (PM_{10}) and acid aerosol were summarized[6] as follows:

> "Particulate matter (PM_{10}) would increase background concentration by 0.0059 $\mu g/m^3$ according to the Ducatman study. Associated aerosol increase would be less than 0.035 $\mu g/m^3$. These concentrations would be far below any measured or modelled level that resulted in an adverse health impact found in studies. Particulate concentrations would be more than 300 times below the level at which health effects have been attributed (Ducatman, 1992)."

The health assessment study[2] associated with the proposed YCEP project is seriously flawed. Recent studies[7-15] have reported associations between particulate air pollution and daily mortality rates in certain U.S. cities. Mortality was most strongly associated with air pollution with fine particulates, including sulfates. Although the effects of other unmeasured risk factors cannot be excluded with certainty, it was concluded that fine-particulate air pollution, or a more complex pollution mixture associated with fine particulate matter, contributes to excess mortality in certain U.S. cities.

Dr. Joel Schwartz, EPA Headquarters-Washington, DC, has estimated[8] that as many as 60,000 U.S. residents per year may die from breathing particulates at or below legally allowed levels. Table 1 summarizes the data from Philadelphia, Detroit, Steubenville, St. Louis, Kingston, TN and Utah County, UT. The New York Times review[16] cites that little is spent on particles that harm mostly young, elderly and those with asthma and calls for a redirection of air pollution control funds. Fine particulate pollution has also been associated with mortality rate in England[17], France[18] and Beijing, China.[19]

A downward revision in the particulate ambient air quality standard is under consideration.[20] The U.S. District Court for the District of Arizona has ruled in a suit filed by the American Lung Association that the EPA must finish its review of the adequacy of the air quality standard for particulate matter by January 31, 1997.[21]

Coal-fired power plants generate more than half of the electricity in the United States, combining with oil-fired power plants, they generate about 60% of electricity in the U.S. Coal- and oil-fired power plants are the largest anthropogenic sources of the acidic deposition precursor, SO_2; the second largest sources of NOx; the major sources of fine particles, and the greenhouse gas CO_2 in the atmosphere.

Particles emitted from power plants and other high temperature sources are typically <2 microns (μm) in diameter, and can be efficiently deposited in the lungs where they are not efficiently removed. In addition, fine particles often carry components known to be toxic or mutagenic.[22]

Atmospheric monitoring and modelling across Maryland by the University of Maryland[22] identified secondary sulfate (mostly from power plants) as the dominant source of aerosol mass at all sites in spring and summer. The mass of SO_2 emitted from typical plants is so enormous relative to that of primary particles, that secondary sulfate and associated NH_4 completely overwhelm that of primary particles, whenever as little as 5% of the SO_2 is converted to sulfate.[22]

With regard to acid deposition, both dry and wet, species to be included are H_2SO_4, HNO_3, SO_2 and NH_4HSO_4. It is recognized that NOx and VOC emissions are precursors to ozone/photochemical smog formation. Significant regional atmospheric pollution reductions are needed in SO_2, NOx, PM_{10} and VOC emissions.

Reductions in the proposed YCEP coal-fired cogeneration facility's emissions are feasible using new commercially-available control technology. With regard to CFB boiler practice, Foster Wheeler[23] and others[24] have described using inert material such as sand for the bed media when a sorbent like limestone is not used. Stabilizing the fluidized bed operation with an inert material provides several substantial environmental benefits.

Without calcium compounds present in the flue gas from the CFB boiler, NOx emissions can be reduced to the maximum degree using SCR, and ammonia scrubbing will allow SO_2 emissions reductions of 98%. PM_{10} emissions can be substantially lowered using more efficient fabric filters, such as gore-tex, P84 polyimide, etc., in a baghouse located between the SCR unit and the NH_3 absorber.

Ammonia scrubbing of the flue gas generates an ammonium sulfate byproduct which has substantial commercial value. Allowing for the byproduct value, the General Electric economic analysis for a 250 MW plant burning 2% S coal shows ammonia scrubbing to be more cost effective than the use of limestone. An additional advantage of NH_3 scrubbing is that the quantity of solid waste is substantially reduced. The coal ash from CFB boiler operation using an inert bed material would be available

for local use in road construction, etc.

Incorporation of these recommended emission control technologies in the YCEP project will substantially improve the expected environmental performance of the project.

Table 1.

Particulate Air Pollution and Daily Mortality							
PM_{10} standard 150 $\mu g/m^3$, 24 hour 50 $\mu g/m^3$, annual							
Site	**Period (years)**	**Total Days**	**Daily Mortality Range, deaths/day**	**Gravimetric Data**	**Range ($\mu g/m^3$)**	**Mean ($\mu g/m^3$)**	**Increased Mortality per 100 $\mu g/m^3$ Increase**
Philadelphia, PA	1973-1980	2922	35-64	TSP	37-132	77.2	7%
Detroit, MI	1973-1982	3650	39-68	TSP*	46-137	87	6%
Steubenville, OH**	1974-1984	4018	1-5	TSP	36-209	111	4%
St. Louis, MO	1985-1986	365	31-81	PM_{10}	1-97	27.6	16%
Kingston, TN	1985-1986	365	5-29	PM_{10}	4-67	30.0	17%
Utah County, UT	1985-1989	1736	0-12	PM_{10}	1-365	50	16%

* Daily TSP predicted from concurrent measurements of TSP and airport visibility from every sixth day sampling for 10 years to fit a predictive model for TSP.

** Steubenville Standard Metropolitan Statistical Area includes Steubenville, the remainder of Jefferson Co. OH, and Brooke and Hancock Counties, WV.

PM_{10} in American cities is ~50-60% of TSP.

1. Schwartz, J. and Dockery, D. "Increased Mortality in Philadelphia Associated with Daily Air Pollution Concentrations," American Review of Respiratory Diseases (1992) 145, 600.
2. Schwartz, J. "Particulate Air Pollution and Daily Mortality in Detroit," Environmental Research 56, 204-213 (1991).
3. Schwartz, J. and Dockery, D. "Particulate Air Pollution and Daily Mortality in Steubenville, Ohio, American Journal of Epidemiology 135, 12-19 (1992).
4. Dockery, D., Schwartz, J. and Spengler, J. "Air Pollution and Daily Mortality: Associations with Particulates and Acid Aeroso's," Environmental Research 39, 362-373 (1992).
5. Pope, C., Schwartz, J. and Ransom, M. "Daily Mortality and PM_{10} Pollution in Utah Valley," Archives of Environmental Health 47, 211-217 (1992).

References

1. Draft Environmental Impact Statement (DEIS) for the Proposed York County Energy Partners Cogeneration Facility - York County, Pennsylvania, November 1994, U.S. Department of Energy DOE/EIS-0221.

2. Ducatman 1992. Health Assessment for the York County Energy Partners Proposed Cogeneration Facility (West Manchester site). West Virginia University, Health Sciences Center.

3. DEIS - Table 4.1-17 Summary of sulfur dioxide (SO_2) effects, p.4-57.

4. DEIS - Table 4.1-19 Summary of oxides of nitrogen (NOx) effects, p. 4-60.

5. DEIS - pp. 4-59, 4-60.

6. DEIS - p. 4-163.

7. Dockery, D. W. et al. "An Association between Air pollution and Mortality in Six U.S. Cities, " The New England Journal of Medicine V329 (No. 24), 1753-1759, (1993).

8. "Dust to Dust: A Particularly Lethal Legacy," Science News V 139, 212 (1991).

9. Schwartz, J. "Particulate Air Pollution and Daily Mortality in Detroit" Environmental Research 56, 204-213 (1991).

10. Schwartz, J. and Dockery, D.W. "Particulate Air Pollution and Daily Mortality in Steubenville, Ohio "American Journal of Epidemiology v. 135, 1279 (1992).

11. Schwartz, J. and Dockery, D.W. "Increased Mortality in Philadelphia Associated with Daily Air Pollution Concentrations" American Review of Respiratory Diseases 145, 600-604 (1992).

12. Kinney, P.L. and Özkaynak, A. "Associations of Daily Mortality and Air Pollution in Los Angeles County" Environmental Research 54, 99-120 (1991).

13. Dockery, D.W., Schwartz, J. and Spengler, J.D. "Air Pollution and Daily Mortality: Associations with Particulates and Acid Aerosols" Environmental Research 59, 362-373 (1992).

14. Schwartz, J. "What are People Dying of on High Air Pollution Days?" Environmental Research 64, 26-35 (1994).

15. Schwartz, J. "Air Pollution and Daily Mortality: A Review and Meta Analysis" Environmental Research 64, 36-52 (1994).

16. Hilts, Philip J. "Studies Say Soot Kills up to 60,000 in U.S. Each Year" New York Times, Monday July 19, 1993 page A1.

17. Bown, W. "Dying from too Much Dust" New Scientist, March 2, 1994, 12-13.

18. Patel, T. "Killer Smog Stalks the Boulevards," New Scientist, October 15, 1994 p. 8.

19. Xu, X.., Dockery, D.W., Gao, J. and Chen, Y. "Air Pollution and Daily Mortality in Residential Areas of Beijing, China" Archives of Environmental Health 49 (No.4) 1994, 216-222.

20. Friedlander, S.K. and Lippmann, M. "Revising the Particulate Ambient Air Quality Standard" Environmental Science & Technology 28, 148A-150A. (1994).

21. "Group Forces EPA to Review its Standard for Particulate Matter" Chemical and Engineering News, October 17, 1994 p. 38.

22. Gordon, G.E., Han, M., Mizohata, A. and Joseph, J. "Coal-and Oil-Fired Power Plant Contributions to the Atmosphere of the State of Maryland," Maryland Department of Natural Resoruces Chesapeake Bay Research and Monitoring Division, Report CBRM-TR-94-1, 1994.

23. Abdulally, I.F. and Libal, A. "CFB Boiler Meets Pollution Standards, Cuts Operating Costs," Power Engineering, August 1992, pp. 35-37.

24. Steam -Its Generation and Use- 40th Edition, Babcock and Wilcox 1992, Chapter 16 Atmospheric Pressure Fluidized Bed Boiler, p. 16-3.

SUMMARY OF RATING DEFINITIONS AND FOLLOW UP ACTION*

Environmental Impact of the Action

LO--Lack of Objections
The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC--Environmental Concerns
The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

EO--Environmental Objections
The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU--Environmentally Unsatisfactory
The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1--Adequate
The EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2--Insufficient Information
The draft EIS does not contain sufficient information for the EPA fully assess the environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3--Inadequate
EPA does not believe that draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640 Policy and Procedures for the Review of the Federal Actions Impacting the Environment.

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

January 31, 1995

Jan K. Wachter
Environment, Safety and Health Program
Support Division
Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, WV 26507-0880

RE: ER 93-2386-133-J,K & L
Jackson/North Codorus/West Manchester Townships, York County
U.S. Department of Energy: York County Energy Partners Cogeneration Facility, Draft Environmental Impact Statement

Dear Ms. Wachter:

The Bureau for Historic Preservation (the State Historic Preservation Office) has reviewed the above named project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

The Bureau has reviewed the Draft EIS for the proposed York Energy Partners Cogeneration Facility. We are unable to comment on the effect of this project on historic resources at this time, as a full identification of historic resources in or near the project area has not been undertaken. To date, only previously identified or evaluated properties have been considered by the Department of Energy (DOE), which does not fulfill a federal agency's responsibilities for identification of resources.

Therefore, a Pennsylvania Historic Resource Survey Form, for all properties constructed prior to 1945, must be completed for all properties in or near the project area viewshed. This viewshed should be defined by DOE to include the viewshed surrounding the proposed cogeneration facility site, the site of the proposed substation expansion (including the town of Bair), and a 3000 foot corridor along the proposed electric interconnect route.

In addition, DOE should evaluate the presence of a rural historic district in the area along the route of the proposed electric interconnect and a historic district in Bair. Once this resource data is compiled, it must be submitted to our office for evaluation of its eligibility for the National Register of Historic Places.

Previous submissions regarding archaeological resources are currently being reviewed by our staff. Comments on these reports will be forthcoming under separate cover.

If you need further information regarding archaeological resources please contact Dorothy Humpf at (717) 772-4520. If you need further information concerning historic structures please consult Caroline Hall at (717) 783-6099.

Sincerely,

Kurt Carr, Chief
Division of Archaeology &
Protection

KC/ch
cc: Advisory Council on Historic Preservation
Karen Winegardner, York County Energy Partners
Melinda Higgins, Historic York, Inc.

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February 2, 1995

Mr. Jan K. Wachter
Department of Energy
Morgantown Energy Technology Center
3610 Cullins Ferry Road
P. O. Box 880
Morgantown, West Virginia 26507-0880

Re: York County Energy Partners
Cogeneration Project

Dear Mr. Wachter:

Please be advised that this office represents Metropolitan Edison Company ("Met-Ed") in connection with the above referenced project.

Your letter of January 27, 1995 to Mr. William Scharadin has been referred to me for response.

Please note that Met-Ed does not routinely take EMF readings at its substations and does not have any readings on the Bair Substation facility specifically.

Met-Ed does have the ability to model transmission line EMF for its own internal planning and engineering purposes. However, the Company does not perform this modeling for third parties, but instead refers them to consultants that are known to perform such services. For your convenience, I have attached a list of consultants that have the ability to model EMF. Please note that the provision of this list does not constitute a recommendation of any particular consultant by either this office or Met-Ed.

Met-Ed has found that EMF information from a variety of sources is beneficial when addressing customers' EMF concerns. Having obtained Met-Ed's permission, I am enclosing a sample of EMF information that was mailed to customers who requested it in response to a Met-Ed offer that was included in a recent monthly bill insert. Please note, however, that Met-Ed does not provide

this EMF information for the purpose of redistribution by third parties. I trust that you will honor this restriction as well.

In the event that you have any further questions concerning any aspect of this project and Met-Ed's relationship thereto, I would appreciate if you would direct your inquiries exclusively to this office.

Very truly yours,

RYAN, RUSSELL, OGDEN & SELTZER

Alan Michael Seltzer

Alan Michael Seltzer

AMS/sae

Enclosure

cc: W. R. Scharadin

York County Conservation District

118 Pleasant Acres Road • York, Pennsylvania 17402 • Telephone (717) 771-9430 • Fax (717) 755-0301

February 2. 1995.

MR CHUCK RENNARD
DER/SOUTH CENTRAL REGIONAL OFFICE
WATER MANAGEMENT PROGRAM - SOILS & WATERWAY SECTION
ONE ARARAT BLVD - ROOM 747
HARRISBURG PA 17110

RE: Recommendation for Permit Action
for Environmental and Energy Project

On Jan. 30. 1995. the York. County Conservation District completed processing and technical review of the Individual NPDES Permit Application PA #PAS10Y009-1 for Discharges of Stormwater from Construction Activities.

Based on the review which was conducted according to Bureau and Department policies and procedures. the district recommends that:

_X___ the permit be issued in coordination with other Department permits and approvals

Sincerely.

Maryann Shaffer

Mary Ann Shaffer
Resource Conservationist
York County
Conservation District

Enclosures - Plan review checklist (s)
Correction letter (s)
Permit Application
4 sets, approved e&s control plans

YORK
York County Energy Partners

York County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

3 February 1995

Via UPS Overnight Delivery

Mr. Raymond P. Zomok, P.E.
Civil Engineer Manager
Department of Environmental Resources
Water Management Program
One Ararat Boulevard
Harrisburg, PA 17110

SUBJECT: EROSION AND SEDIMENT CONTROL PLAN
YORK COUNTY ENERGY PARTNERS, L.P.
PROPOSED 227 MW COGENERATION FACILITY

Dear Mr. Zomok:

Enclosed are three (3) complete sets of the Erosion and Sediment Control Plan for the proposed 227 MW cogeneration facility. This plan has been approved by the York County Conservation District.

If you have any questions regarding the plan, please do not hesitate to call me at 610-481-2036 or 717-225-6601.

Very truly yours,

Deborah A. Platts
Real Estate Representative

c: G. Kinsey, APCI/YCEP

Research-Cottrell
An Air & Water Technologies Company

February 3, 1995

Air Products and Chemicals, Inc.
Environmental/Energy Division
7201 Hamilton Blvd.
Allentown, PA 18195-1501

ATTENTION: Mr. David Wolfson

REFERENCE: York County Energy Partners (YCEP)
Cogeneration Project
Air Emissions From Fabric Filter System

Gentlemen:

At your request, we have reviewed the contents of the letter from the EPA addressing their concerns for the further reduction of particulate matter under 10 microns in size (PM-10) and have the following comments.

The current outlet particulate emission PM10 guarantee for this project at 0.011 lb/MM Btu is the lowest emission guarantees ever offered by this company while utilizing proven fabric filter bag materials and construction. Additionally, we are not aware of any lower guarantees offered in the industry for applications of this type. This guarantee is substantially below the current New Source Performance Standards (NSPS) of 0.03 lb/MMBtu for total particulates. To repeatedly achieve this guarantee level we have selected the use of heavy weight 18 oz./yd^2 Ryton Felt bags which we have proven through a number of installations to be highly efficient and long lasting for this type of application.

Although the use of more efficient fabrics such as P-84 or PTFE Membranes in theory could reduce the amount of PM-10 emissions emitting from the fabric filter system, RC is not prepared to guarantee such low emission levels due to lack of sufficient full scale operating installations with such fabrics and with actual measured emission levels to evaluate.

In our experience, PTFE membranes have produced mixed results in the few combustion installations it has been utilized on. At a Pennsylvania Culm fired CFB installation, our client replaced the initial PTFE filter bags after only 2 years of operation due to the clients concern over high operating pressure drops and cracks in the membrane which contributed to high outlet emission levels. These bags were replaced with conventional Nomex bags which allowed them to meet their required outlet emission guarantee level of only 0.03 lb/MMBtu.

U.S. Highway 22 West and Station Road, Branchburg, NJ 08876-3595
Mailing Address: PO Box 1500, Somerville, NJ 08876-1251

P-84 fabrics can be sensitive to the operating conditions from the boiler and must be carefully applied. This fabric in the form of a composite P-84/Ryton fabric holds promise for the future in the control of fine particulates. Laboratory data is encouraging, however few operating systems have installed this particular filter design, therefor little actual operating/emission data is available.

Additionally, other fabrics which utilize blends of finer denier Ryton fibers to enhance collection efficiency through reduced fabric ash penetration are currently being developed and tested may also provide reduced emission levels in the future.

In conclusion, to our knowledge, the current emission level guarantee of 0.011 lb/MMBtu represents one of the lowest emission level guarantees ever provided for a fabric filter system for this type of application. The fabric selected is a field proven, state-of-the-art material that has provided many years of successful operation. Although we anticipate and have some supporting data which suggests that the fabric selected will achieve measured emission levels less than required, we are not currently in a position, nor willing to offer such guarantees. The fabric filter system and selected fabric currently proposed offers world class levels of emissions control.

If you have any questions and/or comments, please give me a call.

Very truly yours,

RESEARCH-COTTRELL, INC.

Richard L. Miller
Product Director
Fabric Filter Systems

YORK
York County Energy Partners

York County Energy Partners, L.P.™
25 South Main Street
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Phone: (717) 225-6601
Fax: (717) 225-0434

February 6, 1995

Mr. Raymond P. Zomock, P.E.
Chief, Soils and Waterways Section
Department of Environmental Resources
Southcentral Region - Water Management Program
One Ararat Boulevard
Harrisburg, PA 17110

Subject: Department of Environmental Resources File NPDES PAS 10-Y009-1
York County Energy Partners, L.P. Cogeneration Facility
North Codorus Township, York County

Dear Mr. Zomock:

York County Energy Partners, L.P. (YCEP) is in receipt of your letter dated January 26, 1995 concerning the subject NPDES permit application. YCEP provides the following responses to the three concerns listed in your January 26, 1995 letter. For completeness, the Department's concern is being restated followed by the YCEP response.

1. *The Department has been advised that the baseball diamond area was used as a disposal site for boiler waste, lead bearing paints chips, asbestos and pond sludge in the late 1960's. Please provide a detailed technical response to this concern.*

   Under item 1 in the January 5, 1994 correspondence, the report entitled "York County Energy Partners, L.P. Cogeneration Facility North Codorus Township Site Background Information" provided technical information on the various studies which had been conducted on this site by two outside consultants, a geotechnical firm and an environmental firm. The field investigations conducted as part of these studies did not

find any foreign materials such as boiler waste, lead bearing paints chips, asbestos or pond sludge.

During the summer of 1993, a third site investigation was completed to assess the archaeological significance of the proposed site. Conestoga Valley Archaeological Consultants, Lancaster, PA conducted a Phase 1 archaeological and geomorphological survey of the proposed site. The site survey included a field investigation where five soil test pits using a backhoe were conducted to check for archaeological artifacts. Attachment A includes excerpts from the Conestoga Valley Archaeological Consultants final report which provides additional verification of the site subsoil conditions.

Based on the technical information provided in these three studies, YCEP has no reason to believe that the baseball diamond area or any portion of the proposed site was used as a disposal site for any solid waste materials.

2. *The above referenced correspondence indicates 40 subsoil core borings were drilled; however, the results for only seven locations were described. Please provide the test results for the remaining borings and include any pertinent soil testing results included in the final Phase Two Environmental Assessment Report.*

Attachment B provides information on the subsoil core boring study. Attachment B includes 1.) a Section Location Plan which provides the location of the subsoil core borings completed during the field investigation and several subsurface profiles which were developed from the core boring drill logs, 2.) excerpts from the Schnabel Engineering final geotechnical report text which provides the technical information on the subsurface soil characteristics, and 3.) the drill logs of the core borings located in the area of the baseball diamond (B-1 through B-12).

The soil testing results for the seven soil samples provided in the January 5, 1994 letter are the only soil analyses which were conducted on this site. No additional soil sampling was conducted since the first group of samples did not provide results which would indicate concerns at the proposed site.

3. *The location map provided does not include the locations of the B-4 sample or the sediment sample. Please provide these locations along with the locations on any additional sampling points requested above.*

   The locations of the core boring (B-4) sample and all other core borings are shown on the Section Location Plan included in Attachment B. The sediment sample was collected directly from the mill pond to provide an indication of sediment quality. The sediment sample was obtained using a clamshell type sampling device. The exact location of the sediment sample was not provided in the assessment report.

The information provided in the earlier submittal on January 5, 1994 and the additional information provided in this response has allowed YCEP to conclude that no solid waste material is present on the proposed site. YCEP acknowledges the Department's request that they be notified in the event that the waste material identified under item 1 is encountered during the excavation and grading stage of this project.

Please review this information. If you should have any questions or need additional information, please contact me.

Sincerely,

Gary D. Kinsey, P.E.
Manager, Environmental Affairs

YORK
York County Energy Partners

k County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

February 7, 1995

Mr. Ronald M. Davis
Air Pollution Control Engineer
Pennsylvania Department of Environmental Resources
Southcentral Regional Office
One Ararat Boulevard
Harrisburg, PA 17110-9720

SUBJECT: Additional Technical Information - Baghouse Materials
York County Energy Partners, L.P. Cogeneration Facility
PSD Permit Application, File No.: 67-306-007

Dear Mr. Davis:

During our discussion on Wednesday, February 1, 1995, the Department requested that York County Energy Partners, L.P. (YCEP) provide additional technical information on baghouse fabric filter materials and the associated particulate removal efficiencies. This informational request was based on the information included in the Environmental Protection Agency (EPA) review letter to the Department of Energy (DOE) dated January 31, 1995. YCEP has contacted Research-Cottrell, the baghouse manufacturer for the proposed YCEP project, and requested that they provide technical information on the potential further reduction is particulate matter emissions using a different baghouse fabric filter materials. Please find attached a copy of the response letter received from Research-Cottrell.

If you have any questions or need additional information, please contact me.

Sincerely,

Gary D. Kinsey, P.E.
Manager, Environmental Affairs

Research-Cottrell
An Air & Water Technologies Company

February 3, 1995

Air Products and Chemicals, Inc.
Environmental/Energy Division
7201 Hamilton Blvd.
Allentown, PA 18195-1501

ATTENTION: Mr. David Wolfson

REFERENCE: York County Energy Partners (YCEP)
Cogeneration Project
Air Emissions From Fabric Filter System

Gentlemen:

At your request, we have reviewed the contents of the letter from the EPA addressing their concerns for the further reduction of particulate matter under 10 microns in size (PM-10) and have the following comments.

The current outlet particulate emission PM10 guarantee for this project at 0.011 lb/MM Btu is the lowest emission guarantees ever offered by this company while utilizing proven fabric filter bag materials and construction. Additionally, we are not aware of any lower guarantees offered in the industry for applications of this type. This guarantee is substantially below the current New Source Performance Standards (NSPS) of 0.03 lb/MMBtu for total particulates. To repeatedly achieve this guarantee level we have selected the use of heavy weight 18 oz./yd^2 Ryton Felt bags which we have proven through a number of installations to be highly efficient and long lasting for this type of application.

Although the use of more efficient fabrics such as P-84 or PTFE Membranes in theory could reduce the amount of PM-10 emissions emitting from the fabric filter system, RC is not prepared to guarantee such low emission levels due to lack of sufficient full scale operating installations with such fabrics and with actual measured emission levels to evaluate.

In our experience, PTFE membranes have produced mixed results in the few combustion installations it has been utilized on. At a Pennsylvania Culm fired CFB installation, our client replaced the initial PTFE filter bags after only 2 years of operation due to the clients concern over high operating pressure drops and cracks in the membrane which contributed to high outlet emission levels. These bags were replaced with conventional Nomex bags which allowed them to meet their required outlet emission guarantee level of only 0.03 lb/MMBtu.

P-84 fabrics can be sensitive to the operating conditions from the boiler and must be carefully applied. This fabric in the form of a composite P-84/Ryton fabric holds promise for the future in the control of fine particulates. Laboratory data is encouraging, however few operating systems have installed this particular filter design, therefor little actual operating/emission data is available.

Additionally, other fabrics which utilize blends of finer denier Ryton fibers to enhance collection efficiency through reduced fabric ash penetration are currently being developed and tested may also provide reduced emission levels in the future.

In conclusion, to our knowledge, the current emission level guarantee of 0.011 lb/MMBtu represents one of the lowest emission level guarantees ever provided for a fabric filter system for this type of application. The fabric selected is a field proven, state-of-the-art material that has provided many years of successful operation. Although we anticipate and have some supporting data which suggests that the fabric selected will achieve measured emission levels less than required, we are not currently in a position, nor willing to offer such guarantees. The fabric filter system and selected fabric currently proposed offers world class levels of emissions control.

If you have any questions and/or comments, please give me a call.

Very truly yours,

RESEARCH-COTTRELL, INC.

Richard L. Miller
Product Director
Fabric Filter Systems

YORK
York County Energy Partners

York County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

February 8, 1995

Dr. Jan K. Wachter
Director, Environment, Safety and Health Program Support Division
U.S. Department of Energy
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26507-0880

SUBJECT: Actual Air Emissions Estimates for YCEP CFB Boiler
York County Energy Partners, L.P. Draft EIS

Dear Dr. Wachter:

As we discussed last week, York County Energy Partners (YCEP) would provide DOE with projected actual air emissions for the proposed action. Based on emission data from several operating Air Products facilities, it is estimated that the actual air emissions on an annualize basis would be as follows:

- Emissions for sulfur dioxide (SO_2), oxides of nitrogen (NO_x) and particulate matter (PM-10) would be approximately 90% of their respective maximum emissions levels in the PSD permit application. This 10% margin is maintained by over controlling the CFB unit to allow for short term upsets without violating the PSD permit limits.

- Emissions for uncontrolled emissions of volatile organic compounds (VOC) and carbon monoxide (CO) would be approximately 80% of the maximum levels in the PSD permit application. The boiler manufacturers typical include this margin to

allow for upset in the boiler operation without violating the PSD permit limits. This 80% level is based on the operating experience at two other bituminous coal CFB boiler operated by Air Products.

Please use these projected air emissions levels in the Final EIS analysis for comparing the actual air emissions from the P. H. Glatfelter Power Boiler #4 and the YCEP CFB boiler.

If you have any questions or need additional information, please contact me.

Sincerely,

Gary D. Kinsey, P.E.
Manager, Environmental Affairs

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

One Ararat Boulevard
Harrisburg, PA 17110
February 14, 1995

(717) 657-4590

Southcentral Regional Office

Mr. Gary D. Kinsey, P.E.
Manager, Environmental Affairs
York County Energy Partners
25 South Main Street
Spring Grove, PA 17362

Re: DER File No. PAS-10-Y009-1

Dear Mr. Kinsey:

This letter is in reference to your February 6, 1995 response to our concerns regarding your application for an Individual NPDES Permit for Discharges of Stormwater from Construction Activities at the proposed cogeneration facility in York County.

We have reviewed the detailed information provided in your response and note that there is no technical evidence supporting reports that waste materials were disposed at the proposed location of the cogeneration facility.

We acknowledge your commitment to notify this Department's Regional Waste Management Program in the event that waste material is encountered during the excavation and grading stage of this project.

Sincerely,

Raymond P. Zomck, P.E.
Chief, Soils & Waterways Section
Water Management Program

cc: York County Conservation District

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February 15, 1995

Mr. Peter H. Kostmeyer
Regional Administrator
U. S. Environmental Protection Agency
Region III
841 Chestnut Bulding
Philadelphia, PA 19107-4431

SUBJECT: York County Energy Partners, L.P. Cogeneration Project
York County, PA

Dear Mr. Kostmeyer:

On January 30, 1995, the Environmental Protection Agency (EPA) Region III office submitted a comment letter to Dr. Suellen Van Ooteghem, Department of Energy (DOE) on the Draft Environmental Impact Statement (EIS) for the above referenced project. The EPA technical comments were directed to two areas of the Draft EIS, 1.) the Health Assessment should be revised to incorporate recent studies on particulate matter pollution and 2.) the potential reduction in air emissions with the use of alternative air pollution control equipment which may be new commercially available equipment. York County Energy Partners, L.P. (YCEP) would like to provide the following technical information on both of these issues.

Health Assessment on Particulate Matter Pollution:

Based on the information provided in the attachment to your January 30th letter, the EPA recommends that the background information on the Health Assessment for particulate matter be updated to include more recent studies of potential health effects due to particulate matter. EPA's statement that "the health assessment study associated with the

proposed YCEP project is seriously flawed" is not an accurate statement on the potential impacts from the proposed project. EPA has made this statement based on the conclusion that background information in the Health Assessment is in error since it did not include several more recent studies on potential health effects.

Although this type of background information is important to the overall analysis, the focus of the Draft EIS review should be based on the potential ground level impacts on the surrounding air basin due to this proposed project's particulate matter air emission level. The emission analysis information in the Draft EIS on the potential ground level impacts due to the YCEP particulate matter emission was not adequately considered by EPA in their overall analysis.

The proposed project alone (without consideration of the emission reduction due to the curtailment of the existing P. H. Glatfelter boiler) would result in an increase in particulate matter background concentration of 1.07 ug/m3 (24-hour average) which represents only 3.6% of the 24-hour allowable PSD increment and a 1.4 % increase above the existing background levels. According to EPA guidance on air modeling impact analysis, the "significance level" for evaluating particulate matter emission impacts for a 24-hour averaging period is 5.0 ug/m3. Based on this EPA guidance, it is correct to stated that the particulate matter ground level impacts from the YCEP facility alone would be considered insignificant (i.e., not measurable) to the background levels. If the analysis takes into account the potential one to one reduction in particulate matter emissions due to the curtailment of the existing P. H. Glatfelter boiler, there would be not expected impact to existing background levels.

Alternative Emissions Control Equipment:

On January 3, 1995, the DOE and YCEP had a meeting with your staff to discuss the Best Available Control Technology (BACT) analysis for the proposed project. YCEP had completed a BACT analysis for use in the PSD permit application. Since the PSD draft Plan Approval has not yet been issued, EPA did not have all the technical information available to complete their review. To address a request from your staff for more detailed information on the BACT analysis, YCEP prepared a comprehensive document on this project's BACT analysis and submitted to Mr. William Browne on January 17, 1995. This

document included the consideration of the various air pollution control technologies and their applicability to the YCEP project in accordance with the EPA guidance document on BACT top-down analysis.

The four control technologies listed in your January 30 letter were discussed with your staff and considered in the BACT document. It appears that EPA may have failed to consider the technical information which was provided and has concluded that these four proposed control technologies should be applicable to the proposed project. YCEP disagrees with the EPA conclusion that these control technologies are feasible for use on this proposed project. The EPA suggestions for use of these four control technologies fails to adequately consider EPA's own guidance on how a BACT determination should be made. YCEP respectively requests that you review the information provide in the BACT document along with the following additional information.

- The use of inert material (e.g. sand) to stabilize the fluidized bed operation is not technical feasible for the CFB boiler operation. The fundamental design of the CFB boiler is based on effective sulfur dioxide control in the combustion chamber using limestone injection. The use of sand instead of limestone in the CFB boiler operation to allow for installation of an alternative back-end sulfur dioxide control systems (i.e., ammonia or limestone scrubbing) results in a fundamental design change to the CFB boiler operation and would have negative operational impacts. Please find attached a letter received from Foster Wheeler Energy Corporation explaining why the use of inert material (i.e., sand) is not recommended for this CFB boiler application.

- YCEP has evaluated the use of the Selective Catalytic Reduction (SCR) technology for the control of nitrogen oxides as part of the BACT analysis. As detailed in the BACT document, the use of SCR technology is not economically feasible for applicable on a CFB boiler.

- Since the fundamental design of the CFB boiler is based on effective sulfur dioxide control in the combustion chamber using limestone injection, the proposed project can consistently achieve a minimum of 92% sulfur dioxide removal efficiency. The BACT document provides technical and economic information which shows that the use of a

post-combustion add-on control technology (i.e., ammonia or limestone scrubbing) to achieve further reductions is not cost effective.

- EPA stated that a use of more efficient fabric filters would reduce emissions of particulate matter under 10 microns in size. YCEP has contacted Research Cottrell, the baghouse manufacturer, to obtain additional information on the use of different fabric filter materials, such as gore-tex, P84 polymide, etc., noted in your January 30 letter. Please find attached a letter received from Research Cottrell explaining why the fabric filter material currently proposed for use on this project is the most efficient.

Sincerely,

Gary D. Kinsey, P.E.
Manager, Environmental Affairs

cc: Mr. William Browne, EPA Region III
Mr. Ronald Davis, PA DER South-Central Regional Office
Mr. Jan Wachter, DOE Morgantown Energy Technology Center

FOSTER WHEELER ENERGY CORPORATION

PERRYVILLE CORPORATE PARK • CLINTON, NEW JERSEY 08809-4000 • PHONE 908-236-4000

FW-AP #67
February 15, 1995

Air Products and Chemicals, Inc.
Environmental/Energy Systems
7201 Hamilton Boulevard
Allentown, PA 18195-1501

Attention: Mr. David C. Wolfson

Subject: York County Energy Partners Project
Cogeneration Project
FWEC Contract #3-43-7030
YCEP Project Number 03-4-8070
INERT BED MATERIALS

Regarding your recent query on the use of an inert material, such as sand to stabilize the bed at the YORK site FWEC offers the following information:

Inert materials have been used to augment Fluid Bed Boilers whenever the quantity or quality of the limestone combined with the fuel sulfur is inadequate to provide a stable environment for combustion. Bubbling Bed Boilers often use an inert material such as sand to stabilize their bed. However Circulating Fluidized Bed Boilers are based upon a different operational philosophy. To the best of our knowledge there are only two or three of FWEC's competitors CFB's using an inert material on an intermittent bases to augment their needs. FWEC is not aware of any suppler which has experience firing with 100% sand as an inert material. In general FWEC would not recommend any owner operate a CFB using 100% sand in lieu of limestone.

The issue is further compounded by a large demonstration size boiler such as the one proposed for YORK. To accommodate the large size, FWEC has employed a fluid bed heat exchanger. Use of 100% sand in the YORK unit, will yield reduced performance within the exchanger due to the much heavier specific gravity of the sand. The methods used to partially compensate for the heavier materials (such as sand) will only increase the velocity and, therefore, the erosion index resulting in substantially lower unit availabilities. Normally, the intent of a fluid bed boiler is to capture the sulfur within the bed, or recycle loop of the unit without inert materials and utilize the "SOFT ASH" to assist with the transference of heat to the generators surfaces. The YORK unit, as designed for the DOE demonstration facility would fall short of the guarantees for performance, capacity, and material warranties.

Using sand instead of limestone in the YORK unit, would be a particularly poor choice. The high particle velocities associated with a CFB (as opposed to a bubbling bed) would create unacceptable erosion rates. Generally speaking the owner of a CFB would not willingly use sand to stabilize his unit unless there where no other reasonable alternatives. CFB owners and operators would strongly favor limestone and not sand because of the severity of erosion experienced with sand. The calcium rich environment has actually been shown to help form protective coatings on the refractory surfaces. The use of sand, a very abrasive material to form the stable bed (and recycle loop) in a CFB, will substantially increase the erosion to the unit surfaces (tubes and refractory) due to the sands particle hardness and shape. Note that he erosion index would increase by several orders of magnitude between a limestone bed and a sand bed.

As you are aware, one way to mitigate high erosion rates is to cover a greater portion of the furnaces surfaces with a protective coating of refractory. Like all CFBs the YORK unit already has a considerable portion of its surfaces protected by refractories; unfortunately additional coverage of exposed surfaces cannot be considered due to the detrimental effect on the unit heat transfer coefficients. Even consideration of spray metalizing of the bare tubing, which has exhibited good results in other applications to detour harsh erosive environments, has actually caused failures due to poor field applications.

Summarizing the use of sand for the YORK unit as a inert material will certainly reduce the YORK boiler surfaces longevity, decrease the performance of the in bed heat exchanger, and reduce the unit availability. The YECP unit (as designed for the DOE demonstration facility) will not perform to the expectations of FWEC, YECP or demonstrate to the DOE that large scale CFBs can meet this countries increasing power needs in lieu of current pulverized coal technology As a final note, the fuel selected by APC precludes the need for an inert bed material.

If I can be of further assistance please do not hesitate to contact me.

Very truly yours,
FOSTER WHEELER ENERGY CORPORATION

R W Voyles

R. W. Voyles
Project Manager

YORK
York County Energy Partners

York County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
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Fax: (717) 225-0434

22 February 1995

Mr. Peter H. Kostmayer
Regional Administrator
United States Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, PA 19107-4431

Re: York County Energy Partners (YCEP) Cogeneration Project
Evaluation of Ammonia Scrubbing Technology for Sulfur Dioxide Control

Dear Mr. Kostmayer:

Your letter dated 30 January 1995 to the U. S. Department of Energy (DOE) requested a meeting be held involving EPA, DOE, Pennsylvania Department of Environmental Resources (PADER), YCEP, and outside vendors to discuss, among other things, potential use of ammonia scrubbing to reduce emissions of sulfur dioxide. That meeting was held on Friday, 17 February 1995 at EPA Region III offices. The purpose of this letter is to provide YCEP's conclusions regarding a presentation made by representatives from GE Environmental Systems (GEES).

Based on information presented at the meeting, YCEP has concluded that using the ammonia scrubbing technology discussed by GEES would render the YCEP project economically unviable. Assuming that the technology would perform as presented by GEES, the cost of adding this technology to the YCEP facility would result in additional construction costs of $45 - 59 million and additional operating costs of approximately $4 million per year. This equates to a cost effectiveness calculation of more than $4700 per ton of sulfur dioxide (see Attachments 1 and 2).

These costs, both construction and annual operating, would increase the YCEP project's cost to Metropolitan Edison Company (Met-Ed) ratepayers by 20%, which in turn would make the YCEP project more costly than the "ceiling price" which Met-Ed and the Pennsylvania Public Utility Commission used to approve the YCEP costs to Met-Ed ratepayers. More importantly, YCEP and Met-Ed have entered into a 25-year power purchase agreement under which YCEP will provide power to Met-Ed at predictable prices. These prices include the technology as proposed and did not anticipate the potential to add another 20% to the project's cost.

GEES pointed out in its presentation that, although a commercial ammonia scrubbing facility is presently being constructed at a synfuels plant in North Dakota, this technology has never been used, or even tested at a pilot plant scale, with coal as its primary fuel. Although GEES' assumptions in its presentation (and on Attachment 1) assumes 98% reduction of sulfur dioxide emissions, the air permit for the North Dakota synfuels facility is set at 92% which is identical to the reduction which YCEP proposes to achieve using the proposed circulating fluidized bed boiler (CFB). However, the North Dakota synfuels facility is using a 4.5% sulfur content fuel whereas the YCEP facility will use a 2.0% sulfur fuel. Therefore, the YCEP facility will achieve a lower emission rate on a pounds per million BTUs of fuel consumed basis. Based on GEES' presentation of these facts, YCEP has serious concerns whether this technology could perform as stated and as analyzed on Attachments 1 and 2 on a large-scale CFB boiler.

In summary, the ammonia scrubbing technology, based on GEES' presentation on 17 February, is neither technically acceptable nor cost effective for use on the YCEP facility. More to the point, if this technology were required, YCEP would not be able to construct the facility. Further, use of sand or another type of bed-stabilizing material in the YCEP facility is unnecessary without the use of ammonia scrubbing since limestone, as the design intended, would be used to both capture sulfur dioxide as well as provide for proper bed maintenance.

We appreciate the opportunity to have had the discussion with your staff and look forward to working together to accomplish the remaining permitting requirements of the YCEP facility.

Sincerely,

Gary D. Kinsey, P.E.
Manager, Environmental Affairs

Attachments

cc: Mr. Lewis Felleisen - EPA
Mr. William Browne - EPA
Mr. Ron Davis - PADER
Dr. Jan Wachter - DOE
Mr. Nelson Rekos - DOE

ATTACHMENT 1

From Presentation by GE Environmental Systems

York County Energy Partners Project

Preliminary Annualized Cost Analysis

Ammonia/Ammonium Sulfate FGD

PROCESS CONDITIONS	AMMONIA	
OPERATING HOUR	8.320	PER YEAR
TOTAL SO2 FORMED	8.239	LB/H
TOTAL SO2 EMMITTED	165	LB/H
TOTAL SO2 REMOVED	33.589	TPY
REAGENT USAGE	2.1	TPH
ASH PRODUCED	10.0	TPH
PRODUCT PRODUCED	8.3	TPH
EXCESS REAGENT	0.0	TPH
POWER CONSUMPTION	3.818	KW
TOTAL MATERIAL DISPOSED	10.0	TPH
TOTAL MATERIAL DISPOSED	83.200	TPY

ECONOMICS	AMMONIA	
TOTAL CAPITAL COST	$45.000.000	
REAGENT COST	$150.00	$/TON
POWER COST	$667.00	$/KW
DISPOSAL COST	$16.00	$/TON
BYPRODUCT SALES PRICE	$80.00	$/TON
DIRECT OPERATING COST		
REAGENT	$ 2.674.097	$/Y
DISPOSAL	$1.331.200	$/Y
BYPODUCT SALES	$(5.536.954)	$/Y
POWER COST	$ 2.546.258	$/Y
TOTAL DIRECT COSTS	**$1,014,601**	$/Y
TOTAL INDIRECT COSTS	**$6,070,000**	$/Y
TOTAL ANNUALIZED COST:	**$7,084,601**	$/Y
TOTAL SO2 REMOVED	33.589	TPY
COST EFFECTIVENESS:	**$211**	$/T SO2

ATTACHMENT 2

Cost Effectiveness of Ammonia Scrubbing for
York County Energy Partners, L.P.

Using Attachment 1 (GEES' table from its 2-17-95 presentation) as a guide, several adjustments are necessary to reflect additional ash disposal costs and the incremental additional sulfur dioxide reduction of Ammonia Scrubbing over the proposed circulating fluidized bed using limestone control. The GEES analysis failed to recognize that the proposed project has been designed to achieve 92% sulfur dioxide removal and that capital costs for sulfur dioxide removal are imbedded in the facility's design. The adjustments necessary are as follows:

1. Cost of ash disposal - GEES assumed in Attachment 1 that ash disposal costs would be $16 per ton. Although this assumption is correct for circulating fluidized bed boiler ash (due to limestone addition) due to its beneficial use for mine reclamation and reduction of acid mine drainage(AMD), landfill disposal of conventional ash in eastern Pennsylvania, including transportation, is at least $50 per ton. Therefore, DISPOSAL COST in Attachment 1 should be $4.1 million rather than $1.3 million as shown.

2. Total Direct Costs - This figure should be increased by the difference identified in the increase in ash disposal cost shown above, making TOTAL DIRECT COSTS $3.8 million ($1.0 + (4.1 - 1.3) = 3.8) rather than $1.0 million as shown on Attachment 1.

3. Total Annualized Cost - This figure should reflect the increase in TOTAL DIRECT COSTS making the revised TOTAL ANNUALIZED COST $9.8 million (7.0 + 2.8).

4. Total SO_2 Removed - GEES assumed that the existing technology removed no sulfur dioxide rather than the 92% capture which it will achieve by design and by permit. The current design, therefore, removes 31,532 TPY. Therefore, TOTAL SO2 REMOVED in Attachment 1 by the addition of Ammonia Scrubbing Technology is simply the difference between 33,589 TPY (98% removal by Ammonia Scrubbing) and 31,532 TPY (92% removal by the current technology), or 2057 TPY. Therefore, TOTAL SO2 REMOVED on Attachment 1 should reflect this incremental figure (2057 TPY) to reflect the "extra" reduction which would be achieved by including Ammonia Scrubbing Technology.

5. Cost Effectiveness - COST EFFECTIVENESS for the addition of Ammonia Scrubbing Technology on the YCEP facility can now be calculated by dividing TOTAL ANNUALIZED COST by TOTAL SO2 REMOVED. The result is $4764 per ton of sulfur dioxide removed.

GEES Calcluated Cost Effectiveness:	$ 211 per ton of SO2 removed
Actual YCEP Cost Effectiveness	$4,764 per ton of SO2 removed

Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
3610 Collins Ferry Road
Morgantown, West Virginia 26507-0880

February 23, 1995

Mr. William Browne
U.S. Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, PA 19107-4431

Dear Mr. Browne:

Enclosed you will find a revised health risk assessments section for the York County Energy Partners Cogeneration Facility's Environmental Impact Statement. I have incorporated nearly all the information that you have provided to the Department of Energy for review and consideration. The section is more comprehensive in terms of presenting information to the reader regarding the association of adverse health effects and pollution (especially particle) concentrations. However, as I stated during our meeting on February 17, 1995, it is difficult to extrapolate many of these findings to the proposed YCEP project that would result in increases in ambient levels of pollution that are generally well below the levels that were the basis of these epidemiological or physiological studies and given the fact that emission reductions of sulfur dioxide, nitrogen dioxide, and particles would occur for most of the year when compared to baseline. Given these constraints, I believe the revised section summarizes the risks to the populations surrounding York County. Since I am currently redoing the health risk assessment for radionuclide emissions, I have left these numbers blank in the text. However, preliminary analyses show that the cancer risk from radionuclides due to the proposed project is less than risk levels deemed acceptable by the Environmental Protection Agency (1×10^{-6}).

I would appreciate it if you would review the revised section and assess if the deficiencies included in the letter sent from Mr. Kostmayer to the Department of Energy dated January 30, 1995 have been resolved. I have attached additional copies so that others in your agency could also provide a review.

I truly appreciate your time and interest in this project, including the results of your literature searches that you have provided to me.

Sincerely,

Jan K. Wachter
Director
Environment, Safety and Health
Program Support Division

FOSTER WHEELER ENERGY CORPORATION

PERRYVILLE CORPORATE PARK • CLINTON, NEW JERSEY 08809-4000 • PHONE 908-236-4000

FW-AP #69
February 27, 1995

Air Products and Chemicals, Inc.
Environmental/Energy Systems
7201 Hamilton Boulevard
Allentown, PA 18195-1501

Attention: Mr. David C. Wolfson

Subject: York County Energy Partners Project
Cogeneration Project
FWEC Contract #3-43-7030
YCEP Project Number 03-4-8070
PC ASH FOR CFB INERT BED MATERIAL

As requested we have reviewed your question regarding the use of ash from pulverized coal fired units in the YORK unit. As described to us the PC ash would be used in lieu of limestone and its by products of combustion to form the bed of the CFB.

The flyash from a PC unit can be essentially ruled out since it is very fine, usual size is 40 microns, a CFB cyclone would essentially allow all of the flyash to elutriate to the baghouse as soon as it is placed into the CFB. The bottom ash from a PC unit tends to be primarily composed of undesirable compounds fire formed during slagging combustion within the PC such as sodium, silicas, potassium, aluminum, and iron. These compounds occur in high concentrations within the bottom ash and would create unacceptable erosion rates within the CFB due to the particulates hardness and shape (less than but similar to sand) as well as a higher potential for agglomeration formation. As stated previously the fuel selected by APC precludes the need for an inert bed material.

If I can be of further assistance please do not hesitate to contact me.

Very truly yours,
FOSTER WHEELER ENERGY CORPORATION

R W Voyles

R. W. Voyles
Project Manager

York County Energy Partners, L.P.
Emission Reductions Summary

Based on PHG Actual and
YCEP Expected Actual Emissions
(pounds per year)

	SO_2	NOx	Part.
PHG No. 4 Boiler	(7,436,000)	(2,028,000)	(286,222)
No. 4 Boiler - 15 Days	310,696	84,735	11,959
Other NOx Reductions		(1,226,000)	
YCEP	3,820,163	1,995,840	219,240
Net Change	(3,305,141)	(1,173,425)	(55,023)

Total Emissions Reduction	(4,533,589)

Figures in "( )" indicate reductions

Notes:

1. PHG data is from 1992 PEDS submitted to PaDER.
2. YCEP data is based on the YCEP air permit application and operating factors.
3. Other NOx reductions will occur in York County in conjunction with this project.

YCEP Emissions

SO2 Permit Level: 0.25 lb/MMBtu (660 lb/hr)

SO2 Actual: 660 lb/hr x 8400 hr/yr x 1.75/2.0 x 0.875 x 0.9

= 3,820,163 lb/yr

NOx Permit Level: 0.125 lb/MMBtu (330 lb/hr)

NOx Actual 330 lb/hr x 8400 hr/yr x 0.8 x 0.9 = 1,995,840 lb/yr

PM-10 Permit Level: 0.011 lb/MMBtu (29 lb/hr)

PM 29 lb/hr x 8400 hr/yr x 0.9 = 219,240 lb/yr

YORK
York County Energy Partners

County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

1 March 1995

Mr. Ronald M. Davis
Air Pollution Control Engineer
Pennsylvania Department of Environmental Resources
Southcentral Regional Office
One Ararat Boulevard
Harrisburg, PA 17110-9720

Subject: Emission Reductions Due to York County Energy Partners, L.P. (YCEP)

Dear Mr. Davis:

Attached is information pertaining to potential emission reductions resulting from the YCEP project. Specifically, I want to address the basis on which we calculated projected YCEP "actual" emissions which were derived from the permit limits from the YCEP PSD Plan Approval application.

Potential "actual" emissions for YCEP were derived from permit levels by adjusting for the following (see attached):

1. Availability: It is projected that the YCEP project will require 15 days of maintenance per year (i.e., 360 hours). Therefore, the facility would operate for 8400 hours per year. This adjustment factor applies to SOx, NOx, and PM.

2. Met-Ed Dispatch Factor: The YCEP Power Contract with Met-Ed allows for Met-Ed to economically dispatch (i.e., reduce the electrical output) the YCEP facility between 50% and 100% output throughout the 25-year contract life. It is projected that, on average, the YCEP project would be operated at a 90% power level through any given year. This adjustment factor (0.9) applies to SOx, NOx, and PM.

3. Sulfur Content of Fuel: In meeting permit emission limits for SOx, YCEP will contract for coal which has a maximum sulfur content of 2.0%. It is projected that coal deliveries to YCEP will average 1.75% due to commercial penalties associated with a coal supplier's failure to be below 2.0%. This adjustment factor (1.75/2.0) applies only to SOx.

4. Sulfur Capture: In order to meet the sulfur capture requirement of 92%, it is projected that, on average, the YCEP boiler will capture 93%. This adjustment factor (0.875) applies only to SOx.

5. NOx Reduction: In order to meet the NOx emission limit in the permit, it is projected that, on average, the controlled emission rate from the YCEP boiler will be 0.10 lbs NOx per MMBtu. This adjustment factor (0.8) applies only to NOx.

By applying these factors to the maximum annual permitted emissions, one can project what typical annual emissions will actually be. I think you will find these to be reasonable projections. Please call if you have further questions.

Sincerely,

Bradley F. Hahn
Director, Business Development

Attachment

YORK
York County Energy Partners

rk County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

March 2, 1995

Mr. Ronald M. Davis
Air Pollution Control Engineer
Pennsylvania Department of Environmental Resources
Southcentral Regional Office
One Ararat Boulevard
Harrisburg, PA 17110-9720

SUBJECT: Additional Technical Information - CFB Boiler Bed Material
York County Energy Partners, L.P. Cogeneration Facility
PSD Permit Application, File No.: 67-306-007

Dear Mr. Davis:

During our technical meeting with EPA Region III staff on Friday, 17 February 1995, Mr. William Browne, EPA's Environmental Engineer requested that York County Energy Partners (YCEP) investigate whether ash material could be used in the CFB boiler bed in lieu of limestone. YCEP has requested Foster Wheeler Energy Corporation, the CFB boiler manufacturer, to provide a technical response for this EPA request. Please find attached a copy of the response letter received from Foster Wheeler on this technical request. This Foster Wheeler response letter will also be provided to EPA and DOE.

If you have any questions or need additional information, please contact me.

Sincerely,

Gary D. Kinsey, P.E.
Manager, Environmental Affairs

AIR PRODUCTS
A project company of Air Products

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
One Ararat Boulevard, Room 126
Harrisburg, PA 17110
March 2, 1995

(717) 657-4590

Southcentral Regional Office

Mr. Richard Kenner
York County Energy Partners
25 South Main Street
Spring Grove, PA 17362

Re: DER File No. WL-67-95-05
Stormwater Outfall

Dear Mr. Kenner:

This is in reference to your General Permit No. 4 submission received by this office February 24, 1995 for an 18-inch diameter RCP outfall to a tributary to Kessler Pond located along York Road, Segment 220, Offset 1588 in North Codorus Township, York County.

In accordance with the provisions of Section 4 of the Dam Safety and Encroachments Act, the Act of November 26, 1978, P.L. 1375, No. 325 (as amended by Act 70), the proposed structures and/or activity is regulated by this Act.

However, the requirements for a permit are waived for this type of structure or activity in accordance with Section 7(a) of the Dam Safety and Encroachments Act and the provisions of Section 105.12(a)(2) of Chapter 105 Rules and Regulations, Dam Safety and Waterway Management, as amended on October 12, 1991.

The waiver of permit requirements does not give any property rights, either in real estate or material, nor any exclusive privileges, nor shall it be construed to grant or confer any right, title, easement, or interest, in, to, or over any land belonging to the Commonwealth of Pennsylvania; neither does it authorize any injury to private property or invasion of private rights.

It is required that you secure all other approvals that may be necessary under other federal, state or local regulations and meet the construction, operation, maintenance or other requirements of Chapter 105.

Proper erosion and sedimentation control measures are required during and after construction and the adequacy of these measures can be determined by contacting your local County Conservation District.

It is recommended that you contact the Pennsylvania Fish Commission prior to starting the work and that the work be performed in such a manner so as to protect fish and other aquatic life.

If you should have any questions concerning this matter, please contact me at the above telephone number.

Sincerely,

Mollie Bunko
Civil Engineer Hydraulic
Soils & Waterways Section
Water Management Program

cc: Pa. Fish & Boat Commission, Southcentral Regional Office
York County Conservation District
U.S. Army Corps of Engineers, Baltimore District
Gary Kinsey, P.E., York County Energy Products

EXHIBIT "C"

Notification to Use
BDWM-GP-4
Intake and Outfall Structures

I/We, YORK COUNTY ENERGY PARTNERS
(owner name(s))

hereby notify the Bureau of Dams and Waterway Management of our intent to use

Drawing No. 1 to install 1-18" RCP

OUTFALL STRUCTURE
(description of intake or outfall structure)

across/along A TRIBUTARY TO KESSLER POND
(name of stream)

at a point ALONG YORK ROAD AT SEGMENT 220 OFFSET 1588
(describe location)

in NORTH CODORUS TOWNSHIP, (municipality) YORK COUNTY. (county)

I/We have attached a LOCATION MAP similar to that shown on Drawing No. 1 indicating where the intake or outfall structure will be installed.

I/We certify that a copy of this notification was sent this day FEBRUARY 21, 1995 (date) to

NORTH CODORUS TOWNSHIP (municipality) and YORK COUNTY (county)

where the work will be performed.

Signed: Richard C Kenny
(owner or authorized representative)

25 SOUTH MAIN STREET
(owner address)

SPRING GROVE, PA 17362

(717) 225-6601
(owner telephone number)

Send to one of the addresses on Exhibit "B".

YORK
York County Energy Partners

York County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

March 10, 1995

Dr. Suellen A. Van Ooteghem
Environmental Project Manager
U.S. Department of Energy
Morgantown Energy Technology Center
3610 Collins Ferry Road
Morgantown, WV 26507-0880

SUBJECT: P. H. Glatfelter Industrial Waste NPDES Permit Administrative Extension

Dear Dr. Van Ooteghem:

During the Draft EIS public hearings, a public comment was made that the P. H. Glatfelter Company's Industrial Waste NPDES discharge is in violation due to a lack of a valid permit. This public comment was not correct. The current P. H. Glatfelter Company Industrial Waste NPDES permit is a valid permit and the NPDES operations are in compliance with the existing permit conditions.

P. H. Glatfelter Company filed a NPDES permit renewal application on 27 June 1988. At that time, their existing NPDES permit was due to expire on 22 May 1989. This permit renewal application was filed to comply with the NPDES permit renewal requirements. P. H. Glatfelter received a letter from PA DER Bureau of Water Quality Management dated 27 September 1989. This letter described that PA DER would be instituting a basin-wide permitting policy and was administratively extending the existing NPDES permit until 30 September 1991. The P. H. Glatfelter Company has been operating under this administrative extension since September 1991. PA DER is currently finalizing this basin-wide permitting policy and is expecting to issue the NPDES permit renewal.

Please find attached copies of the P. H. Glatfelter letter of 27 June 1988 and the PA DER Bureau of Water Quality Management letter of 27 September 1989. Please use this information to respond to the public comment. If you have any questions or need additional information, please contact me.

Sincerely,

Gary D. Kinsey, P.E.
Manager, Environmental Affairs

cc: R. Callahan, P. H. Glatfelter Co.

DEPARTMENT OF THE ARMY
BALTIMORE DISTRICT, U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 1715
BALTIMORE, MD 21203-1715

March 13, 1995

Planning Division

Dr. Suellen A. Van Ooteghem
Safety and Health Program Support Division
U.S. Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
3610 Collins Ferry Road
Morgantown, West Virginia 26505

Dear Dr. Van Ooteghem:

Reference your agency's letter dated, November 17, 1994, requesting the Baltimore District's comments on the proposed York County Partners Cogeneration Facility, York County, Pennsylvania, Draft Environmental Impact Statement (DEIS). The comments provided below address the U.S. Army Corps of Engineers (Corps) areas of concern, including direct and indirect impacts on existing and/or proposed Corps projects, flood control hazard potential, and permit requirements under Section 404 of the Clean Water Act.

In accordance with the subject DEIS, portions of the proposed project would be located on Corps Indian Rock Dam flood control land. The crossing of Corps lands for the proposed interconnection corridor is expected to have minimal impact on the area's flood control mission. However, the Corps requests the following conditions be met:

* Mitigation for impacts to wildlife shall be completed to the satisfaction of the Pennsylvania Game Commission (PGC) as referenced in their January 30, 1995 letter, to Mr. Jan Wachter (Enclosure 1). The PGC and Corps of Engineers must approve the final design of the mitigation plan prior to implementation.

* Table 9-1 of the DEIS needs to reflect the requirement for a real estate easement from the Corps of Engineers for the crossing of Corps lands.

In accordance with the subject report, portions of the proposed facilities will be located within the floodplain. New construction or major replacements within the flood plain requires full compliance with Executive Order (E.O.) No. 11988, Flood Plain Management, May 24, 1977; Federal Emergency Management Agency (FEMA) regulations; and other Federal, state, and local flood plain regulations. The objectives of the E.O. and the other floodplain regulations are to avoid the adverse effects of occupying and modifying the floodplain and to avoid direct and indirect support of development in the floodplain. The E.O. requires that activities not be located in the floodplain unless it is the only practicable alternative. Activities which must be located in the floodplain must incorporate measures to: (1) reduce the hazard and risks associated with floods, (2) minimize the adverse effects on human health, safety, and welfare, and (3) restore and preserve the natural and beneficial values of the floodplain. While portions of the proposed facilities are located within the 100-year floodplain there is no significant impact on the floodplain. The alternatives presented would have no impact on the floodplain.

In accordance with the National Flood Insurance Program and Related Regulations, October 1, 1988, Section 60.3, published by the FEMA, construction/replacement of water supply facilities and/or sanitary sewage systems within flood-prone areas should be designed to minimize or eliminate infiltration of flood water into facilities. Sanitary sewage systems should also be designed so on-site waste disposal systems are located to avoid impairment to them or contamination from them during flooding.

The DEIS recognizes the need for floodplain evaluation and describes procedures to be used for the evaluation. The results of these evaluations should be documented and coordinated with Federal, state, and local water resource agencies before the final design of the proposed facilities is selected.

Certain activities in the waters of the United States, and jurisdictional wetlands, require Department of the Army permits from the Corps of Engineers. Corps regulations (33 CFR 320 through 330 and 33 CFR 230 and 325 (Appendix B)) require full compliance with the National Environmental Policy Act (NEPA) of 1969 during the review and evaluation of permit applications. To the maximum extent possible, the Corps will accept the information presented in NEPA documents for evaluating permit applications. Once the preferred alignment is determined for the utility corridors, Department of the Army authorization will be required for any discharge of dredged or fill material into waterways or wetlands; as well as for any aerial crossing of the Codorus Creek. It is requested that you contact Mr. John Gibble, River Basin Permits Section, Regulatory Branch, at (410) 962-1846, for information and guidance on permit application completion and submittal. Permit application must be made 90 days in advance of work in waterways/wetlands to allow sufficient time for joint Pennsylvania/Corps Process to work effectively. Further comments concerning the review of NEPA documentation by Regulatory Branch are enclosed (Enclosure 2).

If you have any questions on this matter, please contact me or my action officer, Mr. Larry Lower, at (410) 962-4995.

Sincerely,

Harold L. Dalton for

Dr. James F. Johnson
Chief, Planning Division

Enclosures

COPY

January 30, 1995

Mr. Jan K. Wachter
Director, ES&H Program Support Division
DOE/METC
P.O. Box 880
Morgantown, WV 26507-0880

In re: Draft Environmental Impact Statement (DEIS)
Proposed York County Energy Partners Cogeneration Facility
York County, PA

Dear Mr. Wachter:

The Pennsylvania Game Commission has completed its review of the Draft Environmental Impact Statement for the above referenced project. Based on that review, a field view of the project site conducted on January 6, 1995 by Roland Bergner of my staff, and the meeting at our office on January 23, 1995, we concur with the selection of the Flood Control Property (FCP) alternative as the preferred electric interconnect corridor alternative. We feel that this alternative meets project needs and objectives with the least impacts to residences and private property owners. Even though there will be some impacts to wildlife habitat, these can be addressed through proper mitigation.

We wish to assist York County Energy Partners with the development of the wildlife mitigation plan during the final design process. As discussed at the meeting on January 23, there are certain items we wish to see incorporated into the mitigation plan. These are as follows:

1. The riparian areas along Codorous Creek which will be cleared for the transmission line should be planted with various low growing shrub species to replace lost wildlife habitat.

2. The construction of the transmission line through that portion of the FCP leased to the Pennsylvania Game Commission should be coordinated with our agency to avoid conflicts with hunting seasons, farming, and other management activities.

3. Wood duck nesting boxes and other waterfowl nesting structures should be placed along Codorous Creek to replace any large trees which will be removed in order to increase breeding habitat for these species. Also, kestrel nesting boxes, bat boxes, and other wildlife nesting/resting structures could be placed on the single-shaft steel or wooden poles which will support the transmission line.

4. We recommend that planting of warm season grass species be included in the wildlife habitat mitigation plan. Warm season grasses provide both food and cover for wildlife at different times of the year, and they survive with less moisture and fertility than cool season grasses.

5. Brush piles should be constructed with vegetation that is cleared/trimmed for pole and transmission line placement to provide cover for wildlife.

In our comments in relation to the Electric Interconnection Alternatives and Avoidance Study dated June 1994, we made reference to Section 4(f). We wish to delete this reference to Section 4(f) from our review. Even though the proposed transmission line will be constructed on FCP which is a recreation area and used by the public, Section 4(f) is included in the United Stated Department of Transportation Act of 1966 (amended 1968); and is used to evaluate federally-aided highway projects with involvement with public parks, recreation lands, and wildlife and waterfowl refuges.

Prior to initiating construction of the transmission line, we recommend that York County Energy Partners contact Mr. Roger L. Lehman, Chief, Game Land Planning and Development Division at (717) 787-9613, and Mr. Richard J. Skubish, Land Management Group Supervisor, through our Southeast Regional Office in Reading at (610) 926-3136. Mr. Lehman and Mr. Skubish wish to assist York County Energy Partners in regard to recommended plantings and other wildlife habitat mitigation measures in relation to the proposed project.

If you have any questions or need any additional information in regard to our comments, please contact Mr. Roland Bergner of my staff at (717) 783-4919.

Very truly yours,

Denver A. McDowell, Chief
Division of Environmental Planning
and Habitat Protection
Bureau of Land Management

RB/smp
cc: Grabowicz
Lehman
Reg. Dir. Moore, SE, Atten: FAS Killough
Acting LMS Metz
Arway, PFBC
Kulp, USFWS
Brown, COE, Balt. Dist.
Zomok, DER, SC Reg. Office.
Skubish, LMGS

DEC 1 4 1994

CENAB-OP-RR (1145)

MEMORANDUM THRU

Acting Chief, CENAB-OP-RR

Assistant Chief, ~~CENAB-OP-R~~

Chief, CENAB-OP-R

Chief, CENAB-OP-P

Assistant Chief, CENAB-OP

FOR Chief, CENAB-PL

SUBJECT: Preliminary Review of Draft Environmental Impact Statement for Proposed York County Cogeneration Facility

1. I have reviewed the Draft Environmental Impact Statement (DEIS) for the proposed project, my findings and answers to your concerns are as follows, based on a once-over reading of the document:

a. The DEIS satisfactorily addresses a need and purpose for the proposed plant.

b. There is no overriding environmental concern that would rule out the preferred alternative for siting the proposed plant at Spring Grove, York County, Pennsylvania.

c. In addition to the preferred alternative for siting the plant, the DEIS satisfactorily described the no-action alternative. Only one other site location alternative was discussed. Other plant location alternatives may exist.

d. The DEIS addresses alternatives for the plant site and utility line corridor separately. This appears to be appropriate as several different utility line routes could service the plant at the preferred location.

e. The utility line routes identified as alternatives appear to be satisfactory for review. The preferred alternative may pose minor adverse impacts to water quality in Codorus Creek. These impacts include stream warming, and increased run-off actuated by clearing an area of riparian forest. However, considering the extremely degraded water quality of Codorus Creek this may not be an important consideration.

f. The DEIS identifies four possible alternatives for the 115KV utility corridor and three variations of the preferred alternative. These satisfactorily address the spirit of the 404(b)(1) guidelines.

g. There appears to be adequate documentation contained in the DEIS for NEPA and 404 reviews of the project.

h. The limits of Waters of the United States, including jurisdictional wetlands are appropriately documented for the plant site. Wetlands identified in the DEIS are comparable to those confirmed by the Baltimore District. On 21 November 1994, I inspected a delineation of Waters of the United States, including jurisdictional wetlands, for the preferred power-line right-of-way. This inspection indicated that the delineation was performed correctly and accurately.

i. In section 9 of the DEIS, Approval/Permits Needed, mentions use of Nationwide Permits. It is initially anticipated that a Letter of Permission Permit (LOP) may be required for crossing Codorus Creek, a Section 10 waterway. Also, because the proposed project is not a hydropower project, the Baltimore District will retain Section 10 and Section 404 authority over impacts pursuant to the Federal Power Action of 1920.

2. Any minor impacts should be mitigated using lands of P.H. Glatfelter, Inc., York County Energy Partners, private lands.

3. Mitigation for impacts to aquatic resources should be defined. Theses actions should focus on restoring or improving water quality in Codorus Creek to a minimally acceptable level where the stream supports reproduction for a warm water fishery.

JOHN A. GIBBLE, Ecologist
River Basin Permits Section

LAW OFFICES
RYAN, RUSSELL, OGDEN & SELTZER
1100 BERKSHIRE BOULEVARD
P.O. BOX 6219
READING, PA. 19610-0219
610-372-4761
FAX 610-372-4177

SAMUEL B. RUSSELL
W. EDWIN OGDEN
ALAN MICHAEL SELTZER
JEFFREY A. FRANKLIN
JANET E. ARNOLD

HAROLD J. RYAN (1972)
JOHN S. McCONAGHY (1981)

Via FedEx

March 14, 1995

Suellen A. Van Ooteghem, Ph.D.
Environmental Project Manager
Environment, Safety & Health Program Support Division
Department of Energy
Morgantown Energy Technology Center
P. O. Box 880
Cullins Ferry Road
Morgantown, West Virginia 26507-0880

Re: Draft Environmental Impact Statement for the Proposed York County Energy Partners Cogeneration Facility

Dear Dr. Van Ooteghem:

As you may recall, we represent Metropolitan Edison Company ("Met-Ed"), the proposed purchaser of electric energy and capacity from the proposed York County Energy Partners Cogeneration Facility in York County, Pennsylvania ("Project"). Met-Ed was directed previously by the Pennsylvania Public Utility Commission ("Commission") to enter into a power purchase agreement ("PPA") with York County Energy Partners ("YCEP"), and did so in April 1992.

In a letter dated January 27, 1995, I wrote to you on behalf of Met-Ed to advise the Department of Energy ("DOE") of some of Met-Ed's concerns about information appearing in the Draft Environmental Impact Statement ("EIS") prepared for the Project.

We received a letter from Jan K. Wachter, Director, Environmental Safety & Health Program Support Division of the DOE on February 16, 1995. In that letter, Mr. Wachter invited Met-Ed to provide further details in support of its position that the draft EIS contains certain misstatements about the proposed economic value of the Project and also reflects less than current information regarding the costs and projected benefits thereof to Met-Ed and its customers.

The essence of the comments that we provided earlier was that the information utilized by the DOE in the draft EIS appeared to reflect information that is not current and, therefore, not representative of Met-Ed's current view of the relative "benefits" (or, more appropriately, "disbenefits") of the Project over the next twenty-five (25) years. To the best of our knowledge, no one at Met-Ed was contacted to verify or supplement any third-party information that was gathered by the DOE in the preparation of the draft EIS.

Most fundamentally, the draft EIS does not reflect the profound and significant changes presently underway in the electric industry. The passage of the National Energy Policy Act by the United States Congress in 1992 and subsequent regulatory actions by the Federal Energy Regulatory Commission ("FERC") regarding transmission access have exposed the generating portion of the electric industry to significant competition. Pennsylvania is presently struggling with the appropriate regulatory response to increased competition in the electric industry.

Competition in the electric generation business has placed a premium on significantly reducing long-term energy and capacity purchase commitments that carry uneconomic components.

Met-Ed has been in the process of evaluating the relative economic merits of its entire portfolio of contracts with non-utility suppliers, like YCEP. As I described in my letter of January 27, 1995, this analysis compared the proposed payments to YCEP over the term of the PPA to the costs likely to be incurred if Met-Ed constructed or purchased capacity and energy from a comparably sized gas-fired combined cycle facility. This type of electric generating facility has significantly improved technology and has a cost structure that will be most economically advantageous to Met-Ed and its customers over the next twenty-five years. It should be pointed out that Met-Ed has no present need or desire to build any gas-fired electric generating capacity like the gas-fired combined cycle plant used in the analysis. However, the costs of such a plant are more representative than the Project of the current costs Met-Ed would incur *if* it were to build or purchase such capacity.

The results of this economic comparison are set forth in Exhibit A to this letter. The magnitude of the overpayment likely to be made by Met-Ed to YCEP and incurred by Met-Ed's customers if the YCEP project is built and goes into commercial operation is expected to be over $900 million (constant 1995 dollars) greater than constructing or purchasing the capacity represented by the gas-fired combined cycle facility.

The customer benefits of the Project have now been irrevocably lost as demonstrated by the attached analysis. This loss occurs for several reasons, the most important of which is that fuel prices, principally gas, have not escalated at the rate projected over four years ago and are not expected to increase at those previously projected levels.

Even recognizing that the assumptions driving a long-term forecast vary over time, the magnitude of the projected disbenefits to customers under the PPA are so substantial that they are not likely to turn around in favor of Met-Ed's customers over the next twenty-five (25) years! Thus, the once projected economic benefits associated with the Project no longer exist--all that is left is the potential for severe and sustained economic penalties to Met-Ed's customers.

In an industry that is becoming increasingly competitive, Met-Ed and its customers cannot afford to participate in long-term twenty-five year purchase power commitments that are substantially overpriced from the day the generating facility goes into commercial operation. The PPA with YCEP reflects a long-term pricing structure that is antithetical to the best interest of Met-Ed's customers and detrimental to Met-Ed's effective participation in a competitive electric industry.

I trust this letter further expands upon the themes discussed in my earlier correspondence. Please let me know if I can address any further matters in connection with the draft EIS.

Very truly yours,

Alan Michael Seltzer

dlm

EXHIBIT A

YORK COUNTY ENERGY PARTNERS-PRICE COMPARISON

	Year	Generation	YCEP	Benchmark	Difference
		KWh	million $	million $	million $
1	1997	1,733,123,000	113.1	75.7	37.4
2	1998	1,753,056,000	116.6	78.7	37.9
3	1999	1,768,209,000	122.1	76.3	45.8
4	2000	1,783,464,000	125.6	77.9	47.7
5	2001	1,789,668,000	128.8	80.0	48.8
6	2002	1,789,668,000	131.6	81.9	49.7
7	2003	1,789,668,000	134.5	83.9	50.6
8	2004	1,789,668,000	137.6	86.3	51.3
9	2005	1,789,668,000	140.7	88.0	52.7
10	2006	1,789,668,000	144.1	89.9	54.2
11	2007	1,789,668,000	147.5	91.7	55.8
12	2008	1,789,668,000	151.0	93.2	57.8
13	2009	1,789,668,000	154.8	95.5	59.3
14	2010	1,789,668,000	158.7	97.9	60.8
15	2011	1,789,668,000	162.7	100.4	62.3
16	2012	1,789,668,000	166.8	103.0	63.8
17	2013	1,789,668,000	171.2	90.8	80.4
18	2014	1,789,668,000	175.7	97.2	78.5
19	2015	1,789,668,000	180.5	104.2	76.3
20	2016	1,789,668,000	185.4	111.7	73.7
21	2017	1,789,668,000	190.5	119.8	70.7
22	2018	1,789,668,000	195.8	131.0	64.8
23	2019	1,789,668,000	201.4	135.5	65.9
24	2020	1,789,668,000	207.2	140.3	66.9
25	2021	1,789,668,000	213.2	145.2	68.0
	Total as expended $		3,957.1	2,476.0	1,481.1
	Constant 1995 $ at GDP deflator		2,514.8	1,572.6	942.2
	Net Present Value at 9%		1,280.2	803.0	477.2

YORK
York County Energy Partners™

York County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

14 March 1995

Suellen A. Van Ooteghem, Ph. D.
Environmental Project Manager
U. S. Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
2610 Collins Ferry Road
Morgantown, WV 26505

Dear Dr. Van Ooteghem:

We are in receipt of a copy of a letter from Metropolitan Edison Company ("Met-Ed") to you dated 14 March 1995 providing certain economic information concerning our proposed York County Energy Partners, L.P. ("YCEP") facility. Met-Ed claims in the letter that a hypothetical gas-fired facility would be significantly less costly than the YCEP facility. I would like to respond, for the record, to the information (or, more appropriately, "misinformation") provided to you by Met-Ed.

1. Met-Ed's Hypothethical Plant: Met-Ed is using as its comparison a hypothetical plant which has no site, no contract, no equipment orders, no company standing behind their project figures, and no net reduction in air emissions. Met-Ed simply cannot quote with certainty what the actual costs will be without further defining this hypothetical project. YCEP, on the other hand, is a project which has entered into a fully executed, approved contract and is nearing the beginning of construction. Unlike Met-Ed's hypothetical plant, if construction or energy prices rise in the future, YCEP cannot pass these extra costs along to Met-Ed's ratepayers. YCEP must absorb the costs and protect ratepayers from these increases.

2. Met-Ed's Unreasonable Assumptions: It appears from Exhibit A of Met-Ed's letter under the "Benchmark" column that natural gas costs are increasing by an average of only 3% per year (the rate of increase moves up and down from year to year, but the long-term average increase appears to be 3.0%). This rate of increase is substantially lower than the rate of increase widely predicted by both publicly and privately available forecasts. Energy industry experts such as the American Gas Association (AGA), U. S. Department of Energy's EIA, The WEFA Group, and Gas Research Institute (GRI) project that the long-term expected increase in gas prices will average between approximately 5.5% and 7.5% per year. Therefore, by any measure, Met-Ed appears to be significantly understating the true costs to their ratepayers of the gas alternative in Exhibit A.

3. Met-Ed's Estimates Seem to Have Increased During the Past Several Weeks: You should further note that Met-Ed's estimate of its first year costs which they had previously proclaimed to theYork area media (York Dispatch, 2-10-95) as 3.5 cents/kwh are now shown, via this letter, to be 4.4 cents/kwh (a 25% increase). This merely confirms that Met-Ed's cost estimates can change dramatically overnight and that only when a firm contract is entered into will the costs be certain and, therefore, comparable on an "apples to apples" basis with the YCEP project.

4. Met-Ed's PUC Filing: Perhaps more significant than the lack of rigor in the Exhibit A "Benchmark" estimate is the fact that Met-Ed has not filed these projections with the Public Utility Commission ("PUC"). In fact, the YCEP project is nearly 20% less costly than the official rates which Met-Ed has on file at the PUC. Met-Ed's failure to file these projections and make them "official" suggests Met-Ed doubts the accuracy of these projections. Certainly, if Met-Ed were to construct its own facility, Met-Ed will pass all costs, regardless of how high they might rise, along to its ratepayers. Met-Ed's current request to the PUC to pass $39 million in rising energy costs to its customers reflects the fact that Met-Ed's customers will suffer the cost of future energy cost increases.

5. YCEP Offers More Predictable Prices to Ratepayers: The above facts lead to the final observation: the YCEP project's costs increase over time by only 2.5% per year while a gas project's costs are projected to increase anywhere from 5.5% - 7.5% per year over the long term, based on gas forecasts discussed in paragraph 2. This sheds light on a critical reason why Met-Ed signed the contract with YCEP: Met-Ed must have viewed YCEP as a way to ensure that its customers had predictably priced electricity rather than costs which could rise at a much higher and more unpredictable rate.

Although cost estimates and forecasts can change quickly (and will do so many times during a 25-year period), YCEP and Met-Ed have entered into a predictable-price, long-term contract. Met-Ed agreed following contract negotiations, and so stated in a letter sent to all its ratepayers, that "Met-Ed anticipates that over the 25-year term of this agreement with [YCEP], customers will pay less for electric energy and capacity than they would have absent the agreement ... ". We feel that, once a specific project is compared with YCEP on an apples-to-apples basis, the YCEP facility will be judged as being beneficial both from an economic as well as an environmental perspective.

We look forward to the timely completion of the Environmental Impact Statement and the NEPA process and continue to offer our full cooperation to allow the Department of Energy to complete its review.

Sincerely,

RC Kenner

Richard C. Kenner, Jr.
Vice President and General Manager

Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
3610 Collins Ferry Road
Morgantown, West Virginia 26507-0880

March 21, 1995

Mr. Peter H. Kostmayer
Regional Administrator
United States Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, PA 19107-4431

Dear Mr. Kostmayer:

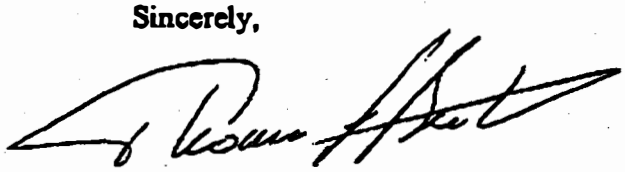
This letter is to clarify the Department of Energy's (DOE) position regarding the technology objectives of the York County Energy Partners (YCEP) Circulating Fluidized-Bed (CFB) Cogeneration Project selected under Round 1 of the Clean Coal Technology Program. DOE remains committed to the demonstration of CFB technology with in-bed desulfurization. Based on discussions with your staff, the Environmental Protection Agency (EPA) appears to be strongly interested in changing the project so that other technologies to control SO_2 and NO_x are utilized. One such alternate cleanup technology, the GE Environmental Services, Inc., ammonia sulfate process, was discussed at length during a February 17, 1995, meeting between DOE, EPA, and YCEP personnel at EPA's offices in Philadelphia, Pennsylvania.

DOE acknowledges that there are several technologies available to control the emissions from the combustion of coal, and many of them are being demonstrated as part of the Clean Coal Technology Program. However, a key reason behind the selection of this Round 1 Clean Coal Project was the readiness for demonstration of in-bed desulfurization at the large (250-MWe) scale. DOE would consider a change to another cleanup technology, such as the ammonia sulfate process, to be a significant change from the objectives as stated in the Cooperative Agreement between DOE and YCEP. Such a change would potentially jeopardize DOE's $75 million participation in the project.

DOE appreciates your interest in the Clean Coal Technology Program and the valuable comments EPA has provided on the draft Environmental Impact Statement prepared for the

YCEP project. If you have any questions or would like to discuss this issue further, please feel free to contact me or my staff.

Sincerely,



Thomas F. Bechtel
Director, METC

cc: William G. Browne, EPA
Ron Davis, Pennsylvania Dept.
of Environmental Resources

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107-4431

MAR 2 2 1995

Dr. Jan Wachter
U.S. Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Dear Dr. Wachter:

We are in receipt of the revised health risk assessments section for the York County Energy Partners Cogeneration Facility's Environmental Impact Statement submitted February 23, 1995. The revised section is more comprehensive in terms of presenting information to the reader regarding the association of adverse health effects and pollution (especially particle) concentrations.

The results of a large study of air quality and health has been reported[1,2] which tracked the health records of 552,138 people in 151 cities from 1982 to 1989. This study shows that fine particles emitted by automobile engines, powerplants and other sources can increase the risk of death by 15 percent in the cities with the dirtiest air, compared with the cleanest cities. Even in cities that meet Federal clean-air standards, the risk of death is 3 to 8 percent higher than in the cleanest cities. The study bolsters the view, based on earlier, smaller studies (cited in the revised health risk assessments section) using a different method, that these small particles are costing tens of thousands of lives each year in the United States.

With regard to particulate emissions from the YCEP facility, it is not sufficient to consider the primary PM_{10} emissions alone in addressing adverse health effects. A larger source of particulates involves the conversion in the atmosphere of SO_2 emissions to secondary sulfate material.[3,4] A stringent, upper bound on particulates formed in the atmosphere from the YCEP emissions would allow for the quantitative conversion of SO_2 to a hydrated sulfate, i.e. $NH_4HSO_4 \bullet 4H_2O$. The mass ration increase is $187 \div 64 \approx 2.9$. Consequently, 2891 TPY SO_2 converts to 8384 TPY $NH_4SO_4 \bullet 4H_2O$ which combined with the PM_{10} of 127 TPY yields an upper bound of ~ 8500 TPY particulates. It would be appropriate to repeat the particulate emissions adverse health effects analysis using the combined primary and secondary particulate emissions.

The overall purpose[5] of the proposed YCEP project is to demonstrate the commercial viability of using utility-scale CFB

technology in a cogeneration facility to generate electric power and steam. Hence, this project supports the goal[5] of the Clean Coal Technology Program which is to demonstrate advanced coal utilization technologies that are energy efficient and reliable and that are able to achieve substantial reductions in emissions as compared with conventional coal technologies.

In examining the viability of replacing the use of limestone in the proposed project with SO_2 reduction of 92% by ammonia scrubbing with SO_2 reduction of 98%, the issue arises as to whether the circulating fluidized bed operation can be stabilized on coal-fired service in the absence of sorbent (limestone). The operating experience with a Foster Wheeler Energy Corporation Circulating Fluidized Bed boiler at Manitowoc Public Utilities, Wisconsin has been described.[6] The boiler is designed to fire a variety of alternate fuels including 100% coal, 100% petroleum coke and tire-derived-fuel as a supplementary fuel. CBF combustion technology is described as follows:

> "The CFB process can be classified by the type of fluidizing regime, i.e., solids behavioral pattern, present in the furnace. All the different unit arrangements offered by CFB manufacturers utilize essentially either of two processes. The Foster Wheeler process is characterized by the presence of a pronounced bed in the first few feet of the furnace and a relatively solids lean freeboard above it. The other, fast fluidized or highly expanded bed, process is characterized by having the solids inventory spread over a large height of the furnace with the absence of a distinct dense bed at the bottom of the furnace (see Figure 4)."

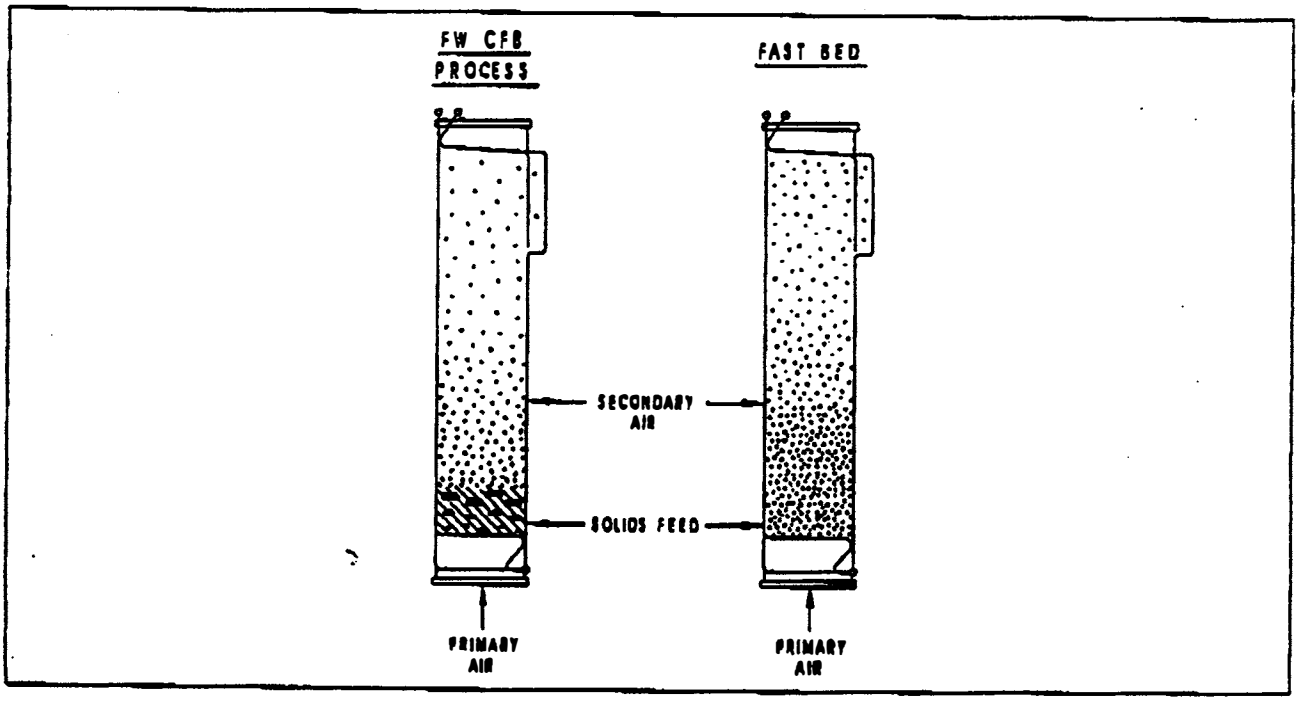


Fig. 4 Comparison of Fluidized Regimes

> "There are other differences that can be identified in each process when the means of achieving optimum conditions for minimizing emissions and maximizing the burnup efficiency are considered. For example, the Foster Wheeler proprietary technique is unique in that the distinct bed fluidizing regime is achieved by using relatively coarse fuel and sorbent size distributions and a relatively low primary furnace zone velocity. Therefore, the bed does not require an additional very coarse inert material such as rock or pebbles."

Consequently, for circulating fluidized bed operation in the absence of sorbent (limestone) the fluidized bed can be stabilized by the addition of very coarse inert material such as rock or pebbles.

The recent combustion literature[7] has identified environmental problems associated with the use of limestone as a sorbent for SO_2 removal in combustion practice. Dr. Meij, KEMA-Netherlands, has tracked[7,8] trace elements at a coal-fired power plant equipped with a wet flue-gas desulfurization unit. (The Netherlands imports all of its coal-mostly from the United States and Australia). He concludes that the heavy metals are introduced in the FGD plant partly by the flue gases, but primarily by the limestone.

With the removal of limestone as sorbent from the CFB boiler NOx emissions can then be reduced to the maximum extent by the use of selective catalytic reduction (SCR). Extensive experience on SCR operation on coal fired service has been reported in the Institute of Clean Air Companies, Inc.'s white paper.[9] The list of overseas SCR installations on coal-fired service is presented in the Appendix. In addition, German experience (reported by Meij[7]) with SCR operating in the high dust regime on coal-fired service report > 80% reduction of mercury in a wet FGD unit. The use of the best fabric filters will lower the PM_{10} emissions from the baghouse. It is noteworthy that high activity catalysts for the abatement of carbon monoxide (CO) and unburned hydrocarbons/VOCs in the presence of high levels of sulfur compounds are commercially available.[10] The performance of the CatCO 610ST catalyst shown in the accompanying bulletin demonstrates CO emissions reduction of 80% at 400°F.

Sincerely,

William G. Browne

William G. Browne
Environmental Engineer

Enclosures

cc: Ronald Davis, PADER
Gary D. Kinsey, YCEP

References

1. Pope, C.A. et al. "Particulate Air Pollution as a Predictor of Mortality in a Prospective Study of U.S. Adults" American Journal of Respiratory and Critical Care Medicine V151, 669-674, 1995.

2. Hilts, P.J. "Dirty-Air Cities Far Deadlier Than Clean Ones, Study Shows," The New York Times Friday, March 10, 1995 p A20.

3. Gordon, G.E. et al. "Coal-and Oil-Fired Power Plant Contributions to the Atmosphere of the State of Maryland" Maryland Department of Natural Resources, Annapolis, MD, Chesapeake Bay Research and Monitoring Division CBRM-TR-94-1, 1994 (Available by telephoning Ann Smith, MD DNR-CBRM Division (410) 974-3782).

4. Cooper, J.A. "PM_{10} Credit for Secondary Sulfate Precursors", Proceedings Annual Meeting Air and Waste Management Association 1993, 86th V 3B 93/WA/75.01 9pp.

5. Draft Environmental Impact Statement for the Proposed York County Energy Partners Cogeneration Facility - York County, PA DOE-EIS-0221 November 1994

6. Abdulally, I.F. and Sturzi, ,R.F. "Firing Experience of Alternate Fuels in a USER-FRIENDLY Circulating Fluidized Bed Boiler", Proceedings of the 1993 International Conference on Fluidized Bed Combustion Volume 2, pp 1171-1180, ASME New York, NY.

7. Meij, R. "Trace element behavior in coal-fired power plants", Fuel Processing Technology 39 (1994) 199-217.

8. Meij, R. "Tracking trace elements at a coal-fired power plant equipped with a wet flue-gas desulphurisation facility" Kema Scientific and Technical Reports 7(5): 267-3555 (1989) N.V. KEMA, R & D Division, Department of Environmental Research ARNHEM, the Netherlands.

9. "WHITE PAPER - SELECTIVE CATALYTIC REDUCTION (SCR) CONTROLS TO ABATE NOx EMISSIONS", Institute of Clean Air Companies, Inc. Washington, D.C. October 1994.

10. ENGELHARD CORPORATION, Iselin, N.Y. -CatCo™ 610ST Catalyst.

Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
3610 Collins Ferry Road
Morgantown, West Virginia 26507-0880

March 24, 1995

Pennsylvania Historical & Museum Commission
Ms. Caroline Hall
Historic Preservation Bureau
Box 1026
Harrisburg, PA 17108-1026

Dear Ms. Hall:

This letter confirms our meeting of March 17, 1995, when a complete copy of the requested survey of historic sites was transmitted to you for committee review. We were delighted to meet with you, and to have the opportunity to explain some of the special features of this project that would ameliorate potential effect to historic properties.

The Department of Energy and York County Energy Partners, L.P. remain committed to ensuring that historic properties are not adversely effected as a result of this proposed project. I look forward to discussing with you, as soon as possible, any potential concerns that may still exist relative to this project.

Should you need any further information, or have any further questions, please contact me at 304-285-5443.

Sincerely,

Suellen A. Van Ooteghem
Environmental Project Manager
Environment, Safety and Health
Program Support Division

cc: Tom McCulloch, Advisory Council on
Historic Preservation

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

March 27, 1995

Suellen A. Van Ooteghem
Morgantown Energy Technology Center
P.O. Box 880
Morgantown, WV 26505

RE: ER 93-2386-133-N
NPS REFERENCE NUMBER
Jackson/North Codorus/West Manchester Townships, York County
U.S. Department of Energy
York County Energy Partners Cogeneration Facility
Determination of Eligibility

Dear Ms. Van Ooteghem:

The Bureau for Historic Preservation (the State Historic Preservation Office) has reviewed the above named project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

It is the opinion of the State Historic Preservation Officer that the following properties are eligible for listing in the National Register of Historic Places:

Swartz House, South Side of Lehman Road West of Lake Road, North Codorus Township: The Swartz House is a good example of eclectic Queen Anne architecture with good integrity. This property meets National Register criterion C as a good example of its type.

Christian Hershey Farmstead, 5241 Colonial Valley Road, North Codorus Township: This property is an early vernacular log house, which retains its integrity. In addition, the surrounding farm complex reflects the property's historical association with agriculture. Therefore, this property meets National Register criteria A and C.

M. Eyster Farmstead, 1056 Sunnyside Road, Jackson Township: The M. Eyster Farmstead is significant architecturally as a blend of German and English building traditions, and it retains good integrity. The property is also significant for the small broom-making operation that occurred here. This property is eligible under National Register criteria A and C.

Jonas Law House, 944 Sunnyside Road, West Manchester Township: This property is an intact example of a vernacular farmhouse, and therefore meets National Register criterion C.

Zorbaugh Property, 2019 Jefferson Road, North Codorus Township: This property is eligible under National Register criterion D, as the parcel contains the sites of two 18th century log churches and an associated graveyard. Therefore, this property presents an excellent potential to research early settlement, religious and demographic patterns.

Old Forge Farmhouse, Southeast of York Road (Route 116), North Codorus Township: Architecturally, this house is a good example of a half-Georgian plan building with a number of Georgian and Federal style details, and it retains good integrity. Historically, this property was associated with an early iron forge and later, with the Glatfelter Paper Company. Therefore, this property meets criteria A and C.

Glatfelter Tenant House, Southeast Side of York Road, North Codorus Township: This property meets National Register criterion C, as an intact example of a modest Queen Anne style residence..

Old Forge Heights Historic District, Rockery Road at Hillside Road, North Codorus Township: This small residential development is significant for its high-style Tudor Revival designs by the regionally important architectural firm of J.A. Dempwolf. Therefore, this district meets National Register criterion C.

Hoke House, 4008 Hanover Street, Jackson Township: This house is significant as an Italianate house on a Georgian plan, that retains high integrity. It is particularly distinctive because of its log structure beneath the brick. Therefore, this property meets National Register criterion C.

George Hoke House, Southeast Side of Menges Mill Road, Jackson Township: This farm complex has retained a high degree of integrity and reflects a significant association with agriculture. The house is based on a Georgian plan with Italianate detailing, and has retained integrity as well. Therefore, this property meets National Register criteria A and C.

Smyser Property, Menges Mill Road at Lake Road, Jackson Township: This house is a very good and intact example of Pennsylvania German vernacular design, and therefore, meets National Register criterion C.

Bair Historic District, Village of Bair, West Manchester Township: This small village retains its integrity and its architecture reflects the late 19th century construction period following the arrival of the railroad in the mid-1870s. Therefore, this district meets National Register criteria A and C.

Menges Mills Historic District, Menges Mill and Colonial Valley Roads, Heidelberg/Jackson Townships: This area is an intact 19th century milling community, which retains significant architectural components, including good examples of 19th century vernacular architecture. Therefore, this district meets National Register criteria A and C.

In addition, the Glatfelter Residence a.k.a. The Hill Historic District, was previously determined to be eligible for the National Register of Historic Places in 1984.

It is the opinion of the State Historic Preservation Officer that the following properties are not eligible for listing in the National Register of Historic Places. These properties are not architecturally or historically significant and many have suffered a loss of integrity.

Martin Station Historic District, Martin Road, Jackson Township
H. Swartz House, 2013 Jefferson Road, North Codorus Township
Nace Property, 1009 Martin Road, Jackson Township
Kindig Property, Martin and Hershey Roads, Jackson Township
Klinedinst Property, 360 Grandview Drive, Jackson Township
Hoff Property, 3802 Menges Mill Road, Jackson Township

Williams Property, 4007 Hanover Street, Jackson Township
J. Bringman House, 3797 Menges Mill Road, Jackson Township
Metzger Property, North Side of Sunnyside Road, Jackson Township
H. Cobb House, 1574 Hershey Road, North Codorus Township
Zartman Property, Colonial Valley Road, North Codorus Township
Miller Barn, Hershey Road at Rockery Road, North Codorus Township
Harlacher Property, 5226 York Road, North Codorus Township
John K. Shaffer Property, 2024 and 2027 Jefferson Road, North Codorus Township
Old Forge Dairy Farm, Southeast of York Road, North Codorus Township
Lehman Historic District, Lehman Road Between Route 116 and Myers Road, North Codorus Township
Rohrbaugh Property, 5225 York Road, North Codorus Township
Bairs Codorus Mennonite Church, 1005 Graybill Road, West Manchester Township
Hartlaub Property, 922 Sunnyside Road, West Manchester Township

Because your request does not include sufficient information, we are unable to proceed with our review of the following properties, until the information listed below is provided.

J. Martin House, 1411 Martin Road, Jackson Township: The photographs provided are not adequate to evaluate the significance of the farmstead. Please submit additional photographs of the barn and any outbuildings, and other views of the house.
E. Martin House, 1007 Martin Road, Jackson Township: The photographs provided are not adequate to evaluate the significance of the farmstead. Please submit additional photographs of the barn and any outbuildings, and other views of the house.
G. Henry House, 1010 and 1011A Martin Road, North Codorus Township: The photographs provided are not adequate to evaluate the significance of the farmstead. Please submit additional photographs of the barn and any outbuildings, and other views of the house.
P. Sprenkle House, 959 Stoverstown Road, West Manchester Township: The photographs provided are not adequate to evaluate the significance of the farmstead. Please submit additional photographs of the barn and any outbuildings, and other views of the house.

The Bureau for Historic Preservation cannot comment on the effect of this project on historic resources, until the resource identification process is complete. Therefore, no comment on effect will be issued until the additional information requested on the four properties listed above has been reviewed.

If you need further information in this matter please consult Caroline Hall at (717) 783-6099.

Sincerely,

Brenda Barrett

Brenda Barrett
Director

BB/ch
cc: Melinda Higgins, Historic York Inc.

LAW OFFICES
RYAN, RUSSELL, OGDEN & SELTZER
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SAMUEL B. RUSSELL
W. EDWIN OGDEN
ALAN MICHAEL SELTZER
JEFFREY A. FRANKLIN
JANET E. ARNOLD

HAROLD J. RYAN (1972)
JOHN S. McCONAGHY (1981)

March 31, 1995

VIA FEDERAL EXPRESS

Suellen A. Van Ooteghem, Ph.D.
Environmental Project Manager
Environment, Safety & Health Program Support Division
Department of Energy
Morgantown Energy Technology Center
P. O. Box 880
Cullins Ferry Road
Morgantown, West Virginia 26507-0880

Re: York County Energy Partners, L.P.

Dear Dr. Van Ooteghem:

This letter (i) represents Metropolitan Edison Company's ("Met-Ed") further comments to the Department of Energy ("DOE") in connection with the draft Environmental Impact Statement ("EIS") that is presently being prepared for the proposed York County Energy Partners ("YCEP") facility in York County, Pennsylvania ("YCEP Project"), and (ii) responds to a letter sent to the DOE on March 14, 1995 by Richard C. Kenner, Jr., Vice President and General Manager of YCEP.

Contrary to the general theme of Mr. Kenner's letter, there is a rational and fully supportable basis for Met-Ed's view that the YCEP Project will cost Met-Ed's customers over $900 million more than they would otherwise have paid for electric capacity and energy over the next 25 years. We have also

demonstrated that the information utilized by the DOE in the preparation of the draft EIS is presently inaccurate, and fails to consider the long-term adverse economic consequences to Met-Ed and its customers. We feel compelled to provide this further response, however, because of YCEP's attempt to distort the "facts" and to perpetuate misinformation regarding the analysis and assumptions utilized by Met-Ed in reaching its conclusion that the YCEP Project will have adverse economic consequences to Met-Ed's customers over the next quarter century. For ease of reference, this letter will address each of the numbered subparagraphs in Mr. Kenner's March 14, 1995 letter.

1. Met-Ed's hypothetical plant.

Mr. Kenner's letter assumes that Met-Ed's use of a "hypothetical" plant for determining the economic disbenefits of the YCEP Project renders any conclusions relating thereto inaccurate and inappropriate, particularly when measured against the alleged "real" costs associated with the YCEP Project. A better understanding of the use of the term "hypothetical" will completely eliminate this criticism. Although it is true that the economic benchmark utilized by Met-Ed is hypothetical in the sense that it has no actual site, power purchase agreement or equipment orders, it in fact embodies the likely costs associated with developing and constructing a new gas-fired combined cycle facility in Pennsylvania/New Jersey. The facility development and construction costs were in fact based upon a real project actually proposed by a particular developer in a recent competitive

solicitation. The fuel costs were based upon an existing firm fuel agreement (as updated to reflect current market conditions). The transportation costs were taken from quotations provided in actual competitive procurements presently or previously undertaken by Met-Ed or its affiliates. Thus, it is unfair, and a complete distortion of reality, to suggest that the "hypothetical" plant is not a reasonable basis for determining economic benefits or disbenefits. The fact that the "hypothetical" plant is not intended to be built does not mean that the costs and economic assumptions used in that benchmark are any less real than YCEP's costs if its Project is built. This attack on the use of a hypothetical economic benchmark is really an attempt to undermine all of the economic analyses that are typically conducted by utilities and developers when assessing the relative economics of a proposed project. This type of analysis was utilized previously in connection with other communications made with respect to the YCEP Project, including earlier filings with the Pennsylvania Public Utility Commission. Interestingly, YCEP did not object to this methodology in these prior regulatory filings.

YCEP's parent, Air Products and Chemicals, Inc., an experienced developer of non utility generation, is well aware of <u>similar</u> gas-fired combined cycle facilities in recent competitive solicitations that are actually less expensive than the economic benchmark used to develop the economic disbenefits of the YCEP Project. The costs associated with the hypothetical plant used to determine the current adverse economic consequences of building and

operating the YCEP Project are reasonable, appropriate and consistent with standard economic analyses.

2. Met-Ed's unreasonable assumptions.

This paragraph of YCEP's letter appears to be nothing more than an attack on the rate of natural gas cost escalation in the Exhibit A provided in Met-Ed's letter. Once again, YCEP has failed to sufficiently familiarize itself with the facts. The column labeled "benchmark" in Exhibit A attached to my recent letter escalates at 3% a year; however, there are many price components that are rolled into that escalation. As stated above, the gas costs in the benchmark are based upon a firm fuel agreement with a fixed escalation, i.e., 5% per year for the first fifteen years and then 9% per year for the remaining ten years of the twenty-five year agreement. Thus, YCEP's concern that Met-Ed has erroneously limited the escalation of the costs of natural gas is totally unsupported.

3. Met-Ed's estimates seemed to have increase during the past several weeks.

YCEP alleges that Met-Ed has attempted to confuse the media and/or the DOE with different price comparisons or, alternatively, continues to change its cost estimates. Let me indicate unequivocally that Met-Ed has not in any way changed the basis and method of calculation of the cost benefits/disbenefits associated with the YCEP Project at all. The 3.5 cents per kwh that YCEP claims to have been "previously proclaimed to the York area media" reflects the costs associated with short to medium-term (i.e., 2-8 years) pricing for energy and capacity. On the other

hand, the 4.4 cents per kwh addressed by YCEP reflects the first year costs of a long-term (i.e., 20 to 25 year) commitment for a new gas-fired combined cycle facility. Comparing these clearly dissimilar numbers is incorrect and misleading. Met-Ed has stated many times that it is in the best interest of its customers to enter into short to medium-term commitments for energy and capacity rather than long-term 20-25 year commitments like those reflected in the YCEP agreement. Moreover, Met-Ed has no intention of building a gas-fired combined cycle facility at the present time. However, in order to make an "apples-to-apples" comparison, Met-Ed compared the long-term YCEP agreement to a long-term economic benchmark based upon a new gas-fired combined cycle facility even though the short to intermediate term purchases are clearly less costly. It is indeed ironic that YCEP accuses Met-Ed of not comparing costs on an "apples-to-apples" basis, when in fact it is YCEP that attempts to discredit Met-Ed's estimate of costs by failing to understand the difference between cost estimates reflecting short-term (i.e., 2-8 years), as opposed to the long-term (i.e., 20-25 years), commitments.

4. Met-Ed's PUC filing.

YCEP for some reason attempts to leave the DOE with the impression that "filing" certain projections or cost estimates with the Pennsylvania Public Utility Commission ("Commission") is indicative of, or relevant to, their reliability and reasonableness. To the extent YCEP's letter leaves that impression, it is completely incorrect. In fact, Met-Ed files with

the Commission each year an Annual Resource Planning Report. If the proposed costs under the YCEP agreement are compared with the current costs contained in Met-Ed's Annual Resource Planning Report on file with the Commission, the projected overpayment would be substantially greater than if the costs were compared to the economic benchmark discussed in my last letter. Interestingly, YCEP never describes the "official rates" on file with the Commission. YCEP's reference to Met-Ed's recently filed energy cost increase in the amount of $39 million also reflects a complete lack of knowledge about the components of the costs and the reasons for the increase. It is true that the pending energy cost increase before the Commission is designed to recover certain fuel and energy costs from customers. What YCEP fails to point out in its letter, however, is that a substantial portion of the $39 million increase is directly attributable to excessive non-utility generation projects like that proposed by YCEP. If in fact the YCEP Project is built and constructed, the increased energy costs that will need to be recovered from customers through the energy cost rate in years to come, will be substantially in excess of the $39 million reflected in the Company's current filing.

5. <u>YCEP offers more predictable prices to ratepayers</u>.

YCEP erroneously asserts that its proposed coal-fired project provides greater assurances of long-term price stability than a comparable gas-fired project. This assertion is also completely inaccurate. The very benchmark gas-fired combined cycle facility used to demonstrate the uneconomic nature of the proposed

YCEP Project was predicated upon a firm fuel agreement with fixed escalation and guaranteed "turnkey" construction costs. Thus, it is possible to procure/build a long-term gas-fired combined cycle plant, with a firm fuel agreement and fixed escalation, that produces rates that are as predictable and stable as those proposed by YCEP. What the coal-fired YCEP Project cannot provide, however, is the significant capital cost savings available from a gas-fired combined cycle project. Such a gas-fired project today would cost approximately 40% less than the proposed YCEP Project.

The proposed YCEP Project is not likely to be in the best interest of Met-Ed or its customers over the next twenty-five (25) years.

We trust that this letter clarifies the record, and places before the DOE the actual facts, as opposed to distortions and misstatements.

Very truly yours,

RYAN, RUSSELL, OGDEN & SELTZER

Alan Michael Seltzer

AMS/sae

cc: John D. Stanley, Esquire

HISTORIC YORK INC.

224 N. GEORGE STREET • P.O. BOX 2312 • YORK, PA 17405 • (717) 843-0320

March 31, 1995

Jan K. Wachter
Director
Environment. Safety, and Health Program
Support Division
Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Morgantown, WV 26507-0880

RE: York County Cogeneration Facility
York County Energy Partners
ER-93-2386-133-N

Dear Dr. Wachter:

Enclosed please find the letter to the Bureau for Historic Preservation and all accompanying materials in response to their request for additional information. This request was made in a letter dated March 27, 1995 to Dr. Van Ooteghem. The final four sites are scheduled to be evaluated by the Bureau for Historic Preservation on Tuesday, April 4, 1995. When that review is complete and an assessment of effect is made, we can begin consultation between DOE and the Bureau for Historic Preservation.

Please do not hesitate to call if you have any questions.

Sincerely,

Melinda G. Higgins

Melinda G. Higgins
Executive Director

MGH/wk
cc: Suellen Van Ooteghem, Department of Energy
Karen Winegardener, York County Energy Partners



HISTORIC YORK INC.

224 N. GEORGE STREET • P.O. BOX 2312 • YORK, PA 17405 • (717) 843-0320

March 30, 1995

Brenda Barrett
Director
Bureau for Historic Preservation
P.O. Box 1026
Harrisburg, PA 17108-1026

RE: ER 93-2386-133-N
Jackson/North Codorus/West Manchester Townships, York County
U.S. Department of Energy
York County Energy Partners Cogeneration Facility
Determination of Eligibility

Dear Brenda:

Enclosed please find 25 additional photographs as requested in your letter dated March 27, 1995 to Dr. Van Ooteghem of the Department of Energy. Your evaluation of four of the properties in question could not be completed until you received supplementary views of the houses, barns and other outbuildings. These four farmsteads are:

GF-57	J. Martin House 1411 Martin Road, Jackson Township
GG-5	E. Martin House 1007 Martin Road, Jackson Township
GG-15	G. Henry House 1010 and 1011A Martin Road, North Codorus Township
GG-44A	P. Sprenkle House 959 Stoverstown Road, West Manchester Township



I am confident that the enclosed photographs will adequately provide you with the needed information. We didn't include photographs of these structures originally because in our opinion they neither added to nor subtracted from the integrity of the four sites. If there is anything further you need, please do not hesitate to contact me.

Sincerely,

Melinda G. Higgins

Melinda G. Higgins
Executive Director

MGH/br
cc: Suellen Van Ooteghem, Department of Energy
Jan Wachter, Department of Energy
Karen Winegardner, York County Energy Partners

Additional Photo Information
Martin farmstead GF-57
Jackson Township

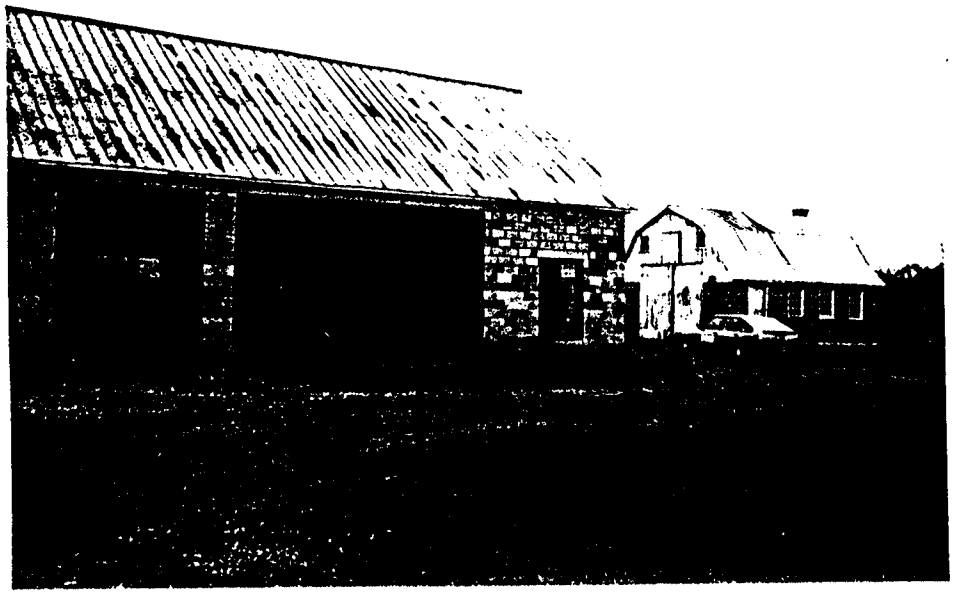
Number	Description of View	Direction of Camera
R-8:14	View of farmstead from Martin Road	NW
R-8:16	View of house, one outbuilding	E
R-8:17	View of two outbuildings	NE
R-8:18	View of wagon shed, outbuilding, two silos and barn	N
R-8:19	View of barn's forebay, wagon shed, one outbuilding	NW
R-8:20	Closeup of barn's forebay	NE



R-8:14



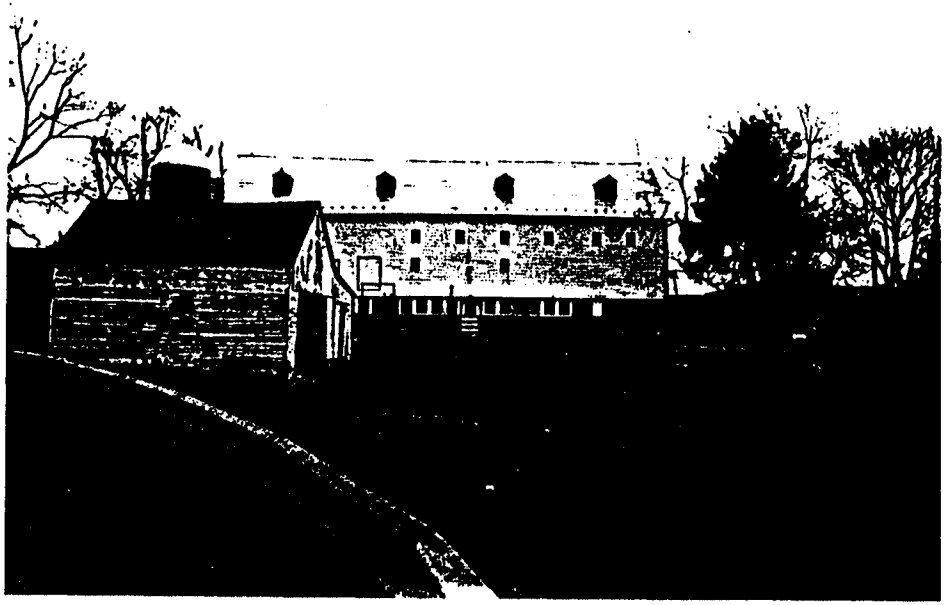
R-8:16



R-8:17



R-8:18



R-8:19

R-8:20



Additional Photo Information
Martin farmstead GG-5
Jackson Township

Number	Description of View	Direction of Camera
R-8:15	View of farmstead from Martin Road	SW
R-8:21	View of outbuilding	SW
R-8:22	Rear view of house	SE
R-8:23	View of two outbuildings	NW
R-8:24	View of wagon shed, one outbuilding	NE



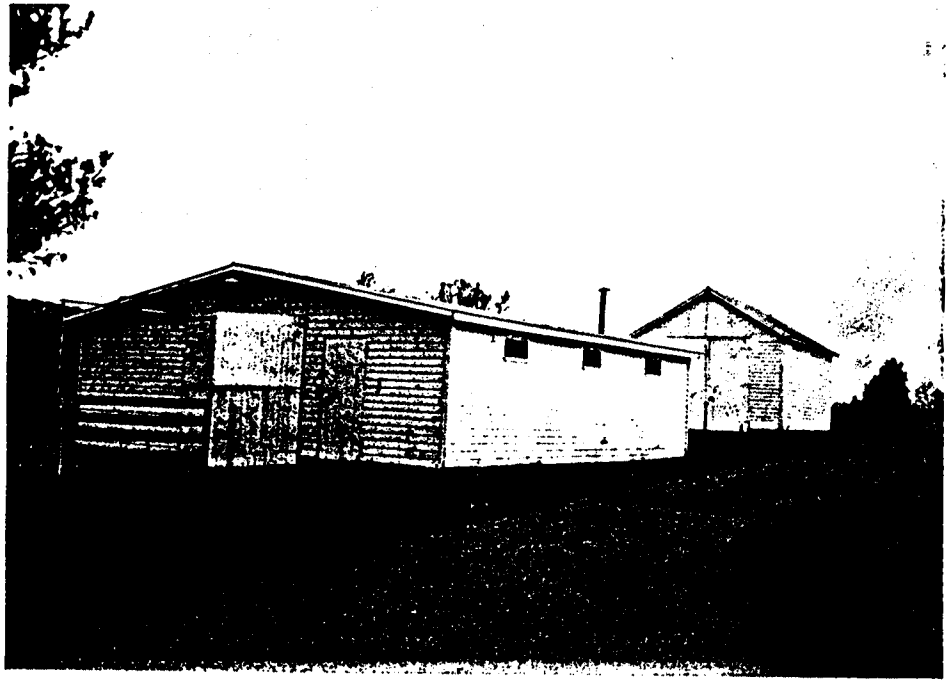
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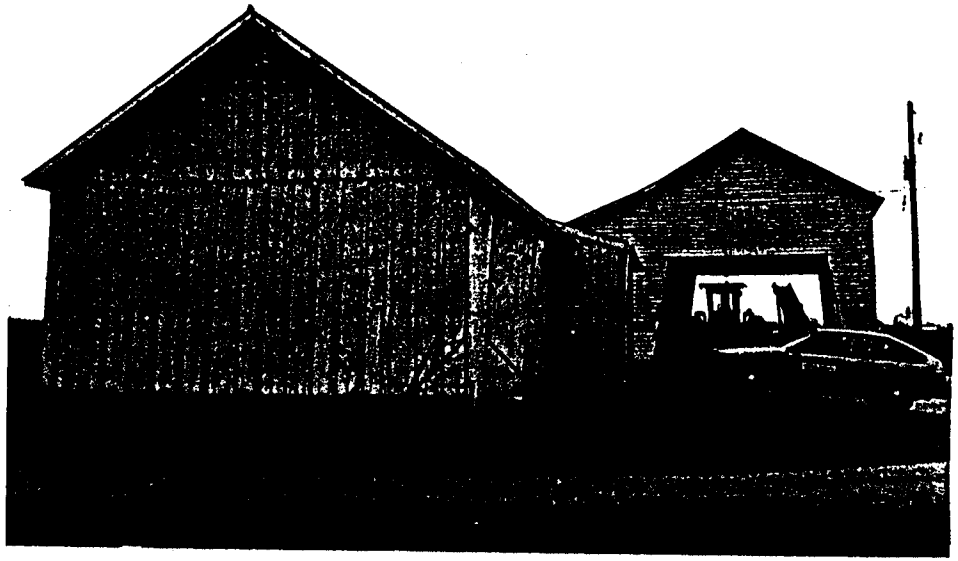
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R-8:22



R-8:23



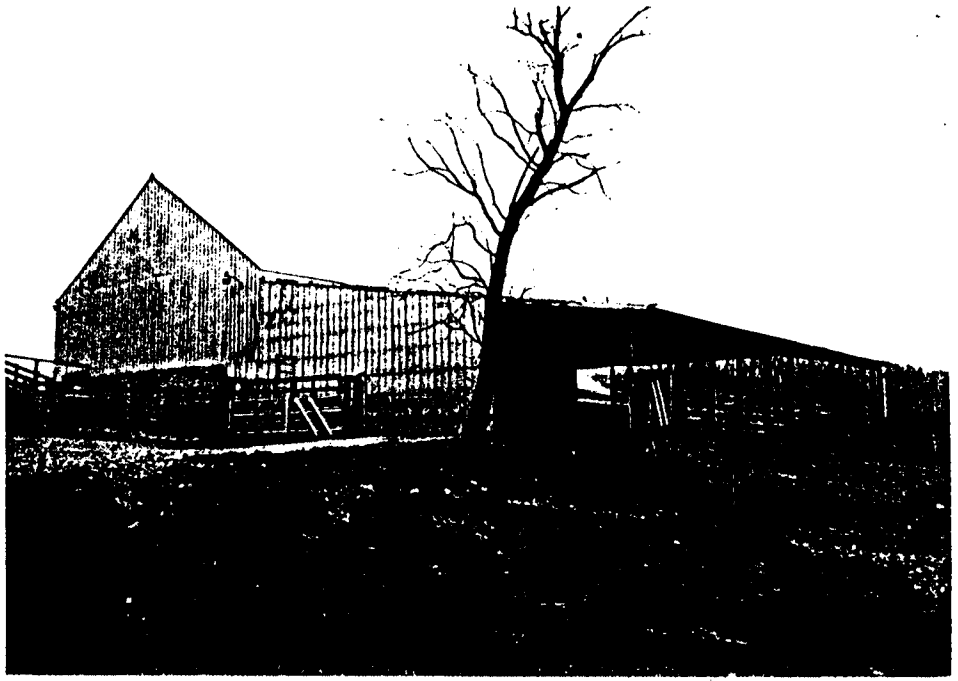
R-8:24

Additional Photo Information
Farmstead GG-15
North Codorus Township

Number	Description of View	Direction of Camera
R-8:7	Rear view of house with recessed porch, summer kitchen	S
R-8:8	View of barn's facade extension	NE
R-8:9	View of metal silos	NW
R-8:10	Rear view of barn	NW
R-8:11	Rear view of house beside road	NW
R-8:12	View of outbuildings, storage tank	N
R-8:13	View of outbuildings	NW



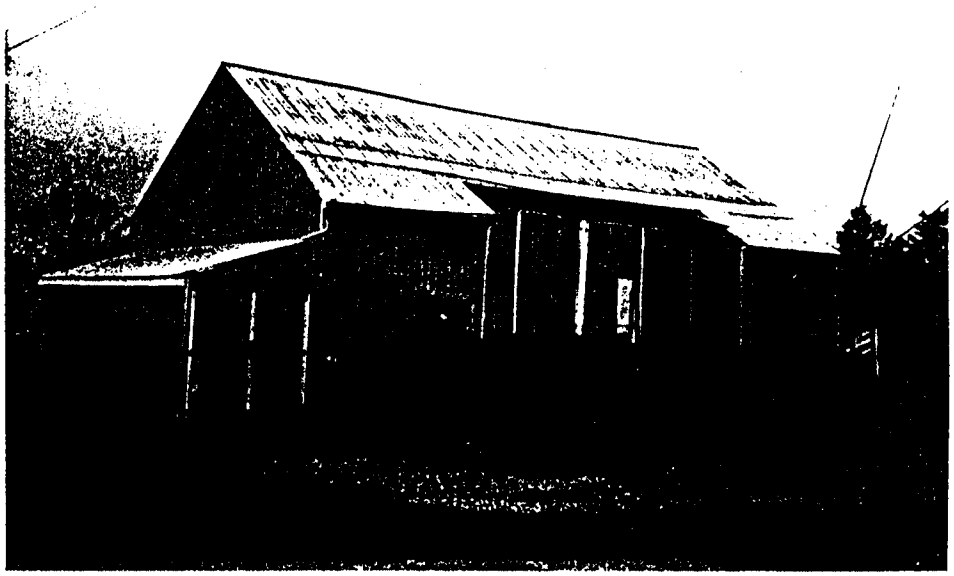
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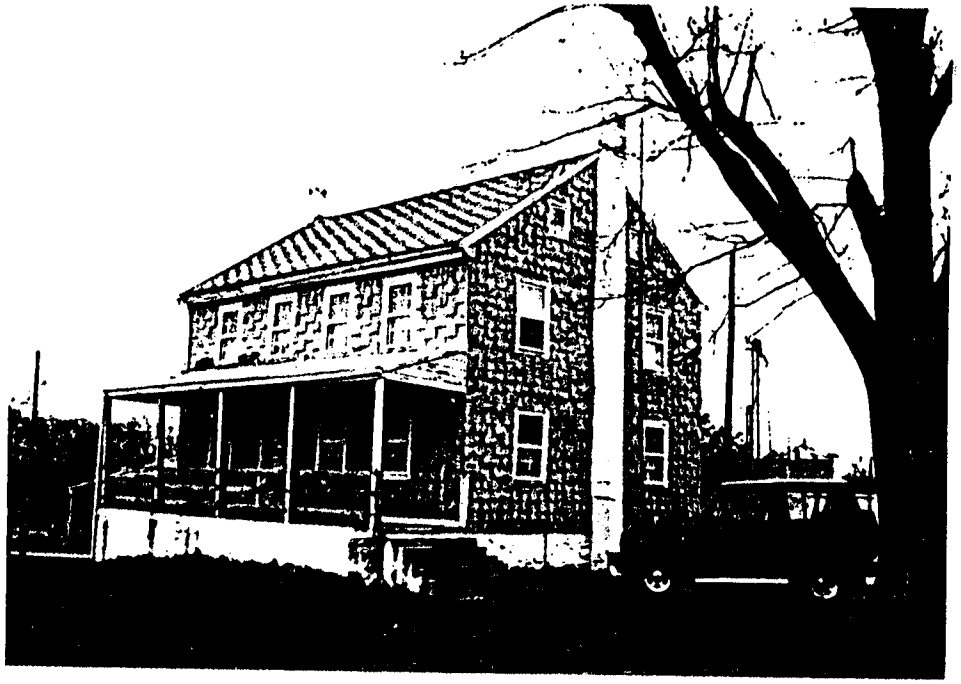
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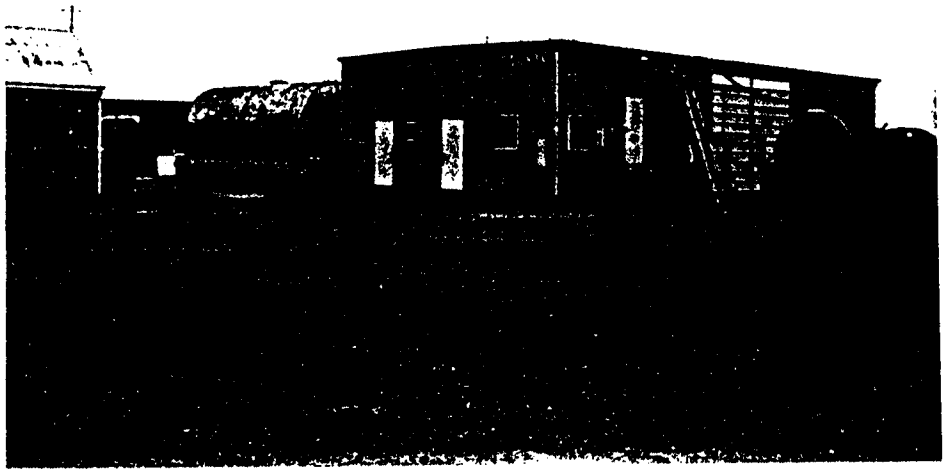
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R-8:10



R-8:11



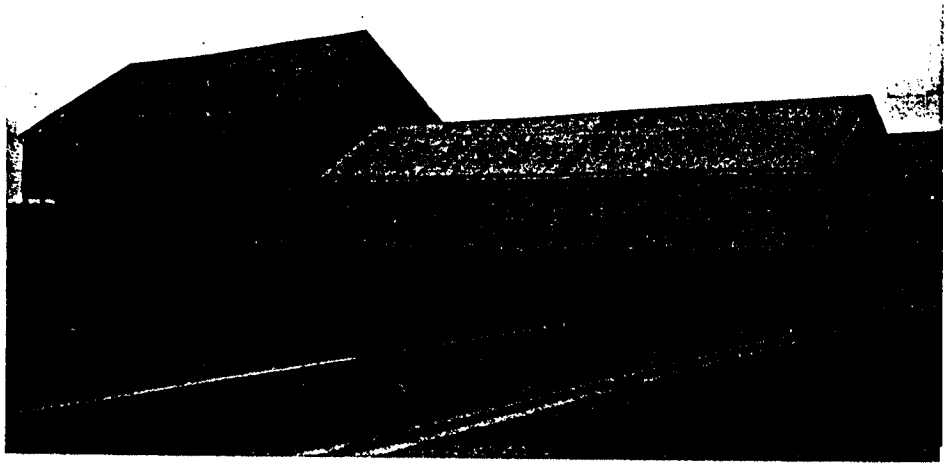
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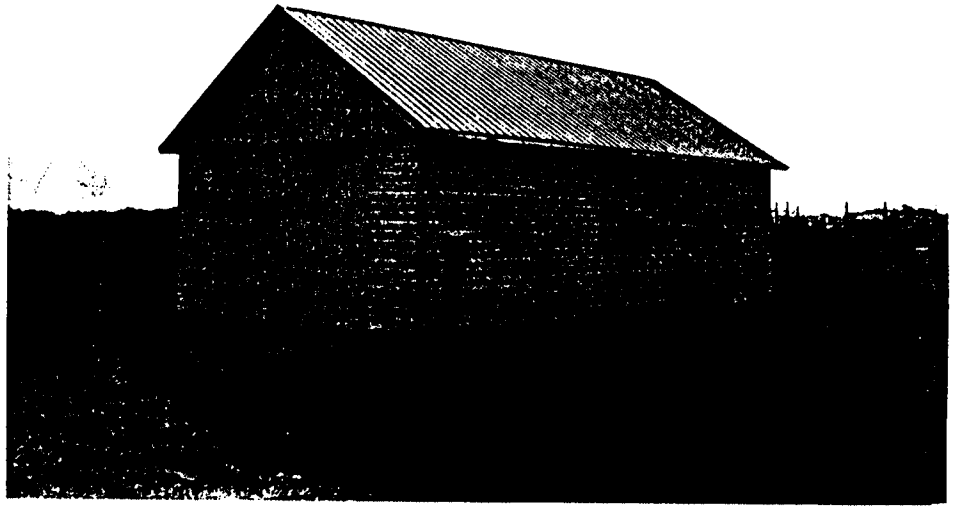
R-8:13

Additional Photo Information
Bair farmstead GG-44A
West Manchester Township

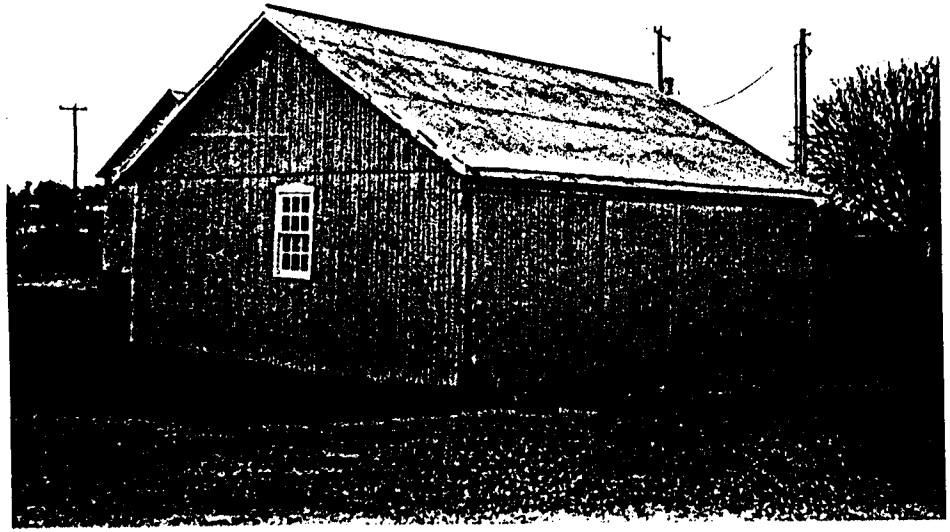
Number	Description of View	Direction of Camera
R-8:0	View of barn's forebay, one outbuilding	SW
R-8:1	View of outbuilding	SW
R-8:2	View of outbuilding	NW
R-8:3	View of two outbuildings	NW
R-8:4	View of house, one outbuilding	NE
R-8:5	Rear view of house, one outbuilding	SW
R-8:6	View of farmstead	NE



R-8:0



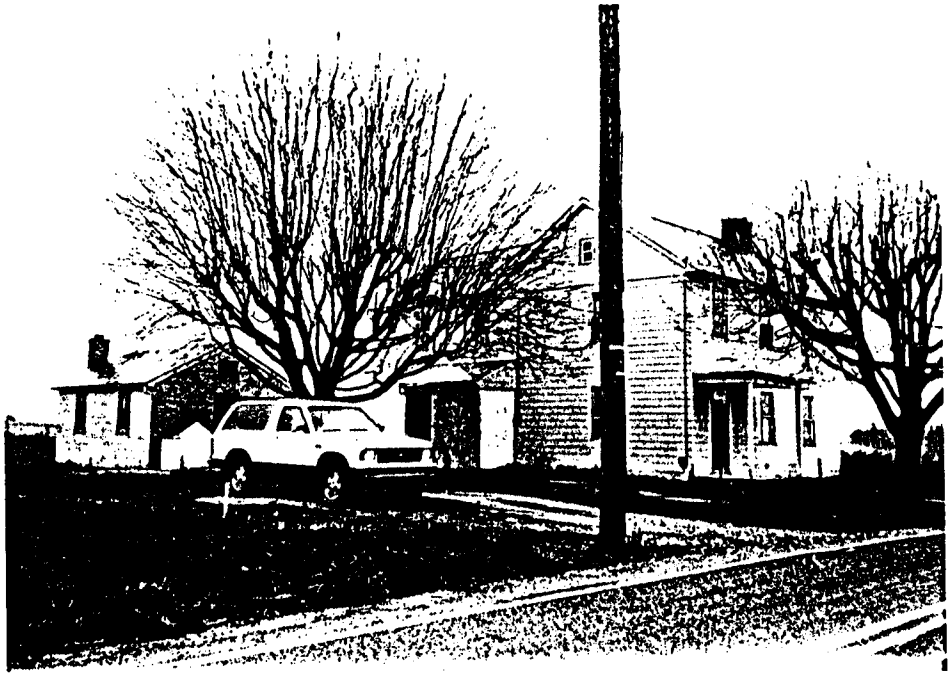
R-8:1



R-8:2



R-8:3



R-8:4



R-8:5



R-8:6

YORK
York County Energy Partners

York County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

3 April 1995

Jan K. Wachter, Ph. D.
Director, ES&H Program Support Division
U. S. Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
2610 Collins Ferry Road
Morgantown, WV 26505

Dear Dr. Wachter:

We are in receipt of a copy of the most recent letter from Metropolitan Edison Company ("Met-Ed") to Dr. Van Ooteghem, dated 31 March 1995. As with its letter dated 14 March, this letter does not provide additional data and claims that a "hypothetical" project (which it admits it has no intention of constructing) would save Met-Ed customers compared to the proposed York County Energy Partners, L.P. ("YCEP") facility.

Met-Ed's statement that the YCEP project is somehow high-priced compared to Met-Ed's "hypothetical" plant is unsupported by and inconsistent with information which Met-Ed has on file with the Pennsylvania Public Utility Commission (PUC). In a petition dated February 25, 1993, Alan Michael Seltzer, Esq., on behalf of Met-Ed, approved the following language in the PUC's approval of the Met-Ed/YCEP Power Purchase Agreement:

> "The [YCEP] power purchase agreement ... provides protection to Met-Ed ratepayers. The pricing provides reasonable dollar savings to ratepayers over the life of the project. These savings will be in excess of $260 million, measured on a cumulative total net present value basis, as compared to the [Met-Ed's] "ceiling price" as shown on Appendix "A" hereto. The ceiling price in turn is below current estimates of Met-Ed's avoided energy and capacity costs as estimated for the period in question."

Met-Ed in its 31 March letter refers back to comments it made earlier to the York media regarding its ability to enter into "short- to medium-term commitments for energy and capacity." Compared to entering into a responsible long term agreement such as the YCEP contract, Met-Ed is now suggesting it would prefer to pass additional risk onto its ratepayers. This does not seem to be responsible energy planning and seems contrary to the long-term interests of Met-Ed ratepayers.

Finally, let us reiterate that Met-Ed has not offered to provide a price guarantee to its customers for rates they claim are available from a new plant which it would construct. If unexpected construction or energy costs are encountered by Met-Ed, the utility will ask its customers for a rate increase. Why? Because being an investor-owned utility, Met-Ed will naturally seek to serve its own stockholders' interests by doing everything they reasonably can to ensure that both expected and unexpected costs will be borne by its customers not its stockholders. As a project company of a publicly held company ourselves (Air Products and Chemicals, Inc.), we are not asking Met-Ed to apologize for that fact ... just admit it to its customers.

In other matters, we understand that the Final Environmental Impact Statement is nearly complete and we look forward to the opportunity to review it as the NEPA process moves toward completion.

Sincerely,

R C Kenner

Richard C. Kenner, Jr.
Vice President and General Manager

YORK
York County Energy Partners

York County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

April 4, 1995

Mr. William G. Browne
Environmental Engineer
U. S. Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, PA 19107-4431

SUBJECT: York County Energy Partners, L.P. Cogeneration Facility
North Codorus Township, York County, PA

Dear Mr. Browne:

At the meeting held at EPA Region III offices on 17 February 1995 which was attended by the Environmental Protection Agency (EPA), the Department of Energy (DOE), the Pennsylvania Department of Environmental Resources (PA DER), and York County Energy Partners, L.P. (YCEP), EPA requested that YCEP contact the boiler manufacturer to obtain additional information on injection of coal ash instead of limestone into the CFB boiler for bed stabilization. Please find enclosed a copy of a response letter received from Foster Wheeler Energy Corporation (FWEC) dated 27 February 1995 addressing this request.

The attached response letter along with an earlier FWEC letter dated 15 February 1995 addressing sand injection provide the engineering and operating information to confirm that the boiler manufacturer would expect degradation of the CFB operation if inert material such as coal ash, sand, pebbles and/or rocks are used in the unit. The issue

of using an inert material in place of limestone in the CFB combustion chamber has been adequately addressed by FWEC. As stated in previous correspondence from YCEP to EPA, the injection of limestone in the CFB combustion process is an integral part of the circulating fluidized bed process for the control of sulfur dioxide emissions.

If you have any questions or need additional information, please contact me.

Sincerely,

Gary D. Kinsey, P.E.
Manager, Environmental Affairs

cc: Mr. Ronald Davis, PA DER South-Central Regional Office
Dr. Jan Wachter, DOE Morgantown Energy Technology Center

FOSTER WHEELER ENERGY CORPORATION

PERRYVILLE CORPORATE PARK • CLINTON, NEW JERSEY 08809-4000 • PHONE 908-236-4000

FW-AP #69
February 27, 1995

Air Products and Chemicals, Inc.
Environmental/Energy Systems
7201 Hamilton Boulevard
Allentown, PA 18195-1501

Attention: Mr. David C. Wolfson

Subject: York County Energy Partners Project
Cogeneration Project
FWEC Contract #3-43-7030
YCEP Project Number 03-4-8070
PC ASH FOR CFB INERT BED MATERIAL

As requested we have reviewed your question regarding the use of ash from pulverized coal fired units in the YORK unit. As described to us the PC ash would be used in lieu of limestone and its by products of combustion to form the bed of the CFB.

The flyash from a PC unit can be essentially ruled out since it is very fine, usual size is 40 microns, a CFB cyclone would essentially allow all of the flyash to elutriate to the baghouse as soon as it is placed into the CFB. The bottom ash from a PC unit tends to be primarily composed of undesirable compounds fire formed during slagging combustion within the PC such as sodium, silicas, potassium, aluminum, and iron. These compounds occur in high concentrations within the bottom ash and would create unacceptable erosion rates within the CFB due to the particulates hardness and shape (less than but similar to sand) as well as a higher potential for agglomeration formation. As stated previously the fuel selected by APC precludes the need for an inert bed material.

If I can be of further assistance please do not hesitate to contact me.

Very truly yours,
FOSTER WHEELER ENERGY CORPORATION

R W Voyles

R. W. Voyles
Project Manager

YORK
York County Energy Partners™

York County Energy Partners, L.P.™
25 South Main Street
Spring Grove, Pennsylvania • 17362
Phone: (717) 225-6601
Fax: (717) 225-0434

February 15, 1995

Mr. Peter H. Kostmeyer
Regional Administrator
U. S. Environmental Protection Agency
Region III
841 Chestnut Bulding
Philadelphia, PA 19107-4431

SUBJECT: York County Energy Partners, L.P. Cogeneration Project
York County, PA

Dear Mr. Kostmeyer:

On January 30, 1995, the Environmental Protection Agency (EPA) Region III office submitted a comment letter to Dr. Suellen Van Ooteghem, Department of Energy (DOE) on the Draft Environmental Impact Statement (EIS) for the above referenced project. The EPA technical comments were directed to two areas of the Draft EIS, 1.) the Health Assessment should be revised to incorporate recent studies on particulate matter pollution and 2.) the potential reduction in air emissions with the use of alternative air pollution control equipment which may be new commercially available equipment. York County Energy Partners, L.P. (YCEP) would like to provide the following technical information on both of these issues.

Health Assessment on Particulate Matter Pollution:

Based on the information provided in the attachment to your January 30th letter, the EPA recommends that the background information on the Health Assessment for particulate matter be updated to include more recent studies of potential health effects due to particulate matter. EPA's statement that "the health assessment study associated with the

proposed YCEP project is seriously flawed" is not an accurate statement on the potential impacts from the proposed project. EPA has made this statement based on the conclusion that background information in the Health Assessment is in error since it did not include several more recent studies on potential health effects.

Although this type of background information is important to the overall analysis, the focus of the Draft EIS review should be based on the potential ground level impacts on the surrounding air basin due to this proposed project's particulate matter air emission level. The emission analysis information in the Draft EIS on the potential ground level impacts due to the YCEP particulate matter emission was not adequately considered by EPA in their overall analysis.

The proposed project alone (without consideration of the emission reduction due to the curtailment of the existing P. H. Glatfelter boiler) would result in an increase in particulate matter background concentration of 1.07 ug/m3 (24-hour average) which represents only 3.6% of the 24-hour allowable PSD increment and a 1.4 % increase above the existing background levels. According to EPA guidance on air modeling impact analysis, the "significance level" for evaluating particulate matter emission impacts for a 24-hour averaging period is 5.0 ug/m3. Based on this EPA guidance, it is correct to stated that the particulate matter ground level impacts from the YCEP facility alone would be considered insignificant (i.e., not measurable) to the background levels. If the analysis takes into account the potential one to one reduction in particulate matter emissions due to the curtailment of the existing P. H. Glatfelter boiler, there would be not expected impact to existing background levels.

Alternative Emissions Control Equipment:

On January 3, 1995, the DOE and YCEP had a meeting with your staff to discuss the Best Available Control Technology (BACT) analysis for the proposed project. YCEP had completed a BACT analysis for use in the PSD permit application. Since the PSD draft Plan Approval has not yet been issued, EPA did not have all the technical information available to complete their review. To address a request from your staff for more detailed information on the BACT analysis, YCEP prepared a comprehensive document on this project's BACT analysis and submitted to Mr. William Browne on January 17, 1995. This

document included the consideration of the various air pollution control technologies and their applicability to the YCEP project in accordance with the EPA guidance document on BACT top-down analysis.

The four control technologies listed in your January 30 letter were discussed with your staff and considered in the BACT document. It appears that EPA may have failed to consider the technical information which was provided and has concluded that these four proposed control technologies should be applicable to the proposed project. YCEP disagrees with the EPA conclusion that these control technologies are feasible for use on this proposed project. The EPA suggestions for use of these four control technologies fails to adequately consider EPA's own guidance on how a BACT determination should be made. YCEP respectively requests that you review the information provide in the BACT document along with the following additional information.

- The use of inert material (e.g. sand) to stabilize the fluidized bed operation is not technical feasible for the CFB boiler operation. The fundamental design of the CFB boiler is based on effective sulfur dioxide control in the combustion chamber using limestone injection. The use of sand instead of limestone in the CFB boiler operation to allow for installation of an alternative back-end sulfur dioxide control systems (i.e., ammonia or limestone scrubbing) results in a fundamental design change to the CFB boiler operation and would have **negative** operational impacts. Please find attached a letter received from Foster Wheeler Energy Corporation explaining why the use of inert material (i.e., sand) is not recommended for this CFB boiler application.

- YCEP has evaluated the use of the Selective Catalytic Reduction (SCR) technology for the control of nitrogen oxides as part of the BACT analysis. As detailed in the BACT document, the use of SCR technology is not economically feasible for applicable on a CFB boiler.

- Since the fundamental design of the CFB boiler is based on effective sulfur dioxide control in the combustion chamber using limestone injection, the proposed project can consistently achieve a minimum of 92% sulfur dioxide removal efficiency. The BACT document provides technical and economic information which shows that the use of a

post-combustion add-on control technology (i.e., ammonia or limestone scrubbing) to achieve further reductions is not cost effective.

- EPA stated that a use of more efficient fabric filters would reduce emissions of particulate matter under 10 microns in size. YCEP has contacted Research Cottrell, the baghouse manufacturer, to obtain additional information on the use of different fabric filter materials, such as gore-tex, P84 polymide, etc., noted in your January 30 letter. Please find attached a letter received from Research Cottrell explaining why the fabric filter material currently proposed for use on this project is the most efficient.

Sincerely,

Gary D. Kinsey, P.E.
Manager, Environmental Affairs

cc: Mr. William Browne, EPA Region III
Mr. Ronald Davis, PA DER South-Central Regional Office
Mr. Jan Wachter, DOE Morgantown Energy Technology Center

FOSTER WHEELER ENERGY CORPORATION

PERRYVILLE CORPORATE PARK • CLINTON, NEW JERSEY 08809-4000 • PHONE 908-236-4000

FW-AP #67
February 15, 1995

Air Products and Chemicals, Inc.
Environmental/Energy Systems
7201 Hamilton Boulevard
Allentown, PA 18195-1501

Attention: Mr. David C. Wolfson

Subject: York County Energy Partners Project
Cogeneration Project
FWEC Contract #3-43-7030
YCEP Project Number 03-4-8070
INERT BED MATERIALS

Regarding your recent query on the use of an inert material, such as sand to stabilize the bed at the YORK site FWEC offers the following information:

Inert materials have been used to augment Fluid Bed Boilers whenever the quantity or quality of the limestone combined with the fuel sulfur is inadequate to provide a stable environment for combustion. Bubbling Bed Boilers often use an inert material such as sand to stabilize their bed. However Circulating Fluidized Bed Boilers are based upon a different operational philosophy. To the best of our knowledge there are only two or three of FWEC's competitors CFB's using an inert material on an intermittent bases to augment their needs. FWEC is not aware of any suppler which has experience firing with 100% sand as an inert material. In general FWEC would not recommend any owner operate a CFB using 100% sand in lieu of limestone.

The issue is further compounded by a large demonstration size boiler such as the one proposed for YORK. To accommodate the large size, FWEC has employed a fluid bed heat exchanger. Use of 100% sand in the YORK unit, will yield reduced performance within the exchanger due to the much heavier specific gravity of the sand. The methods used to partially compensate for the heavier materials (such as sand) will only increase the velocity and, therefore, the erosion index resulting in substantially lower unit availabilities. Normally, the intent of a fluid bed boiler is to capture the sulfur within the bed, or recycle loop of the unit without inert materials and utilize the "SOFT ASH" to assist with the transference of heat to the generators surfaces. The YORK unit, as designed for the DOE demonstration facility would fall short of the guarantees for performance, capacity, and material warranties.

Using sand instead of limestone in the YORK unit, would be a particularly poor choice. The high particle velocities associated with a CFB (as opposed to a bubbling bed) would create unacceptable erosion rates. Generally speaking the owner of a CFB would not willingly use sand to stabilize his unit unless there where no other reasonable alternatives. CFB owners and operators would strongly favor limestone and not sand because of the severity of erosion experienced with sand. The calcium rich environment has actually been shown to help form protective coatings on the refractory surfaces. The use of sand, a very abrasive material to form the stable bed (and recycle loop) in a CFB, will substantially increase the erosion to the unit surfaces (tubes and refractory) due to the sands particle hardness and shape. Note that he erosion index would increase by several orders of magnitude between a limestone bed and a sand bed.

As you are aware, one way to mitigate high erosion rates is to cover a greater portion of the furnaces surfaces with a protective coating of refractory. Like all CFBs the YORK unit already has a considerable portion of its surfaces protected by refractories; unfortunately additional coverage of exposed surfaces cannot be considered due to the detrimental effect on the unit heat transfer coefficients. Even consideration of spray metalizing of the bare tubing, which has exhibited good results in other applications to detour harsh erosive environments, has actually caused failures due to poor field applications.

Summarizing the use of sand for the YORK unit as a inert material will certainly reduce the YORK boilor surfaces longevity, decrease the performance of the in bed heat exchanger, and reduce the unit availability. The YECP unit (as designed for the DOE demonstration facility) will not perform to the expectations of FWEC, YECP or demonstrate to the DOE that large scale CFBs can meet this countries increasing power needs in lieu of current pulverized coal technology As a final note, the fuel selected by APC precludes the need for an inert bed material.

If I can be of further assistance please do not hesitate to contact me.

Very truly yours,
FOSTER WHEELER ENERGY CORPORATION

R W Voyles

R. W. Voyles
Project Manager

Research-Cottrell
An Air & Water Technologies Company

February 3, 1995

Air Products and Chemicals, Inc.
Environmental/Energy Division
7201 Hamilton Blvd.
Allentown, PA 18195-1501

ATTENTION: Mr. David Wolfson

REFERENCE: York County Energy Partners (YCEP)
Cogeneration Project
Air Emissions From Fabric Filter System

Gentlemen:

At your request, we have reviewed the contents of the letter from the EPA addressing their concerns for the further reduction of particulate matter under 10 microns in size (PM-10) and have the following comments.

The current outlet particulate emission PM10 guarantee for this project at 0.011 lb/MM Btu is the lowest emission guarantees ever offered by this company while utilizing proven fabric filter bag materials and construction. Additionally, we are not aware of any lower guarantees offered in the industry for applications of this type. This guarantee is substantially below the current New Source Performance Standards (NSPS) of 0.03 lb/MMBtu for total particulates. To repeatedly achieve this guarantee level we have selected the use of heavy weight 18 oz./yd^2 Ryton Felt bags which we have proven through a number of installations to be highly efficient and long lasting for this type of application.

Although the use of more efficient fabrics such as P-84 or PTFE Membranes in theory could reduce the amount of PM-10 emissions emitting from the fabric filter system, RC is not prepared to guarantee such low emission levels due to lack of sufficient full scale operating installations with such fabrics and with actual measured emission levels to evaluate.

In our experience, PTFE membranes have produced mixed results in the few combustion installations it has been utilized on. At a Pennsylvania Culm fired CFB installation, our client replaced the initial PTFE filter bags after only 2 years of operation due to the clients concern over high operating pressure drops and cracks in the membrane which contributed to high outlet emission levels. These bags were replaced with conventional Nomex bags which allowed them to meet their required outlet emission guarantee level of only 0.03 lb/MMBtu.

P-84 fabrics can be sensitive to the operating conditions from the boiler and must be carefully applied. This fabric in the form of a composite P-84/Ryton fabric holds promise for the future in the control of fine particulates. Laboratory data is encouraging, however few operating systems have installed this particular filter design, therefor little actual operating/emission data is available.

Additionally, other fabrics which utilize blends of finer denier Ryton fibers to enhance collection efficiency through reduced fabric ash penetration are currently being developed and tested may also provide reduced emission levels in the future.

In conclusion, to our knowledge, the current emission level guarantee of 0.011 lb/MMBtu represents one of the lowest emission level guarantees ever provided for a fabric filter system for this type of application. The fabric selected is a field proven, state-of-the-art material that has provided many years of successful operation. Although we anticipate and have some supporting data which suggests that the fabric selected will achieve measured emission levels less than required, we are not currently in a position, nor willing to offer such guarantees. The fabric filter system and selected fabric currently proposed offers world class levels of emissions control.

If you have any questions and/or comments, please give me a call.

Very truly yours,

RESEARCH-COTTRELL, INC.

Richard L. Miller
Product Director
Fabric Filter Systems

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

April 14, 1995

Suellen A. Van Ooteghem
Morgantown Energy Technology Center
P.O. Box 880
Morgantown, WV 26505

FOR EXPEDITE REVIEW USE
SHPO REFERENCE NUMBER

RE: ER 93-2386-133-O
Jackson/North Codorus/West Manchester Townships, York County
U.S. Department of Energy
York County Energy Partners Cogeneration Facility
Determination of Eligibility

Dear Ms. Van Ooteghem:

The Bureau for Historic Preservation (the State Historic Preservation Office) has reviewed the above named project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

It is the opinion of the State Historic Preservation Officer that the following property is eligible for listing in the National Register of Historic Places:

E. Martin Property, 1007 Martin Road, Jackson Township: This property, despite some loss of integrity, is sufficiently intact to reflect its historical association with agriculture. The house and barn both have architectural features which reflect the mid-19th century, and therefore, this property is eligible under National Register criteria A and C.

It is the opinion of the State Historic Preservation Officer that the following properties are not eligible for listing in the National Register of Historic Places. These properties are not architecturally or historically significant and many have suffered a loss of integrity.

P. Sprenkle House, 959 Stoverstown Road, West Manchester Township
J. Martin House, 1411 Martin Road, Jackson Township
G. Henry House, 1010-1011A Martin Road, North Codorus Township

It is our opinion that this project will result in a visual adverse effect on the historic and architectural qualities that make the properties listed below, eligible. To comply with the regulations of the Advisory Council on Historic Preservation, you must follow the procedures outlined in 36 CFR 800.5 (e), when the effect is adverse. You will need to notify the Advisory Council of the effect finding and continue to consult with the Bureau for Historic Preservation to seek ways to avoid or reduce the effects on historic properties.

Christian Hershey Farmstead, 5241 Colonial Valley Road, North Codorus Township
M. Eyster Farmstead, 1056 Sunnyside Road, Jackson Township
Jonas Law House, 944 Sunnyside Road, West Manchester Township
The Glatfelter Residence a.k.a. The Hill Historic District

Finally, the archaeological reports submitted to us, meet our standards and specifications. It is our opinion that no further archaeological testing is necessary in the project area, as it is currently defined. We understand that geotextiles will be used at the locations of temporary access roads, which will not, therefore, require archaeological testing. If project plans change and additional area will be disturbed by the project, please contact our office so that we can re-assess the impact of the project on archaeological resources.

Please have your archaeological consultant consolidate the information presented int the various documents, into one final report. Four copies (three bound and one unbound) of this report should be submitted with original photographs, for our files.

If you need further information regarding archaeological resources please contact Dorothy Humpf at (717) 772-4520. If you need further information concerning historic structures please consult Caroline Hall at (717) 783-6099.

Sincerely,

Brenda Barrett
Director

BB/ch
cc: Advisory Council on Historic Preservation
Melinda Higgins, Historic York Inc.
John Garland, Environmental Sciences Department, EG & G

Department of Energy
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, West Virginia 26507-0880

April 20, 1995

Ms. Brenda Barrett
Director, Bureau for Historic Preservation
Pennsylvania Historical and Museum Commission
P.O. Box 1026
Harrisburg, Pennsylvania 17108-1026

Attention: Ms. Caroline Hall

RE: ER 93-2386-133-0
U.S. Department of Energy
York County Energy Partners, L.P.
"Adverse Effect" Documentation

Dear Ms. Barrett:

Thank you for the prompt review of our Historic Sites Survey, and your Determination of Eligibility and Adverse Effect letter of April 14, 1995 (Enclosure I). Following receipt of a fax copy of your letter on April 14, 1995, John Garland of my staff spoke with Ms. Caroline Hall about executing the next step in the Section 106 Consultation Process. Ms. Hall indicated that the Department of Energy should submit "Adverse Effect Documentation" to your office for consideration. Accordingly, this letter and Enclosure II comprises the Department's "Adverse Effect Documentation" response.

In that same conversation, John inquired about the possibility of reducing the number of properties adversely affected by the proposed project. Caroline asked that a separate proposal be submitted for each specific property, requesting reconsideration of the finding of adverse effect. In a subsequent telephone conversation between John and Caroline, it was agreed that requests for reconsideration of finding of adverse effect would be enclosed with this "Adverse Effect Documentation" response. Therefore, requests for reconsideration of finding of adverse effect for two properties (the Jonas Law House and the Christian Hershey Farmstead) are also enclosed (Enclosures III and IV) for your review.

Lastly, a meeting has been tentatively scheduled for April 28, 1995, between Ms. Hall, Ms. Karen Winegardner, Ms. Melinda Higgins, and Mr. John Garland to discuss mitigation options for the properties that would be unavoidably adversely affected by the proposed project.

Sincerely,

Jan K. Wachter,
Director
Environment, Safety, and Health
Program Support Division

Enclosures (4)

cc: Advisory Council on Historic Preservation
Karen Winegardner, York County Energy Partners
Melinda Higgins, Historic York, Inc.
Jack Dinne, U.S. Army Corps of Engineers
Erik Gutshall, Dynamac Corporation

Commonwealth of Pennsylvania
Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Post Office Box 1026
Harrisburg, Pennsylvania 17108-1026

April 28, 1995

Jan K. Wachter
Environment, Safety, & Health Program
Support Division
Morgantown Energy Technology Center
P.O. Box 880
Collins Ferry Road
Morgantown, WV 26507-0880

RE: ER 93-2386-133-Q
North Codorus/Jackson/West Manchester Townships, York County
U.S. Department of Energy
York County Energy Partners Cogeneration Facility
Adverse Effect Determination

Dear Ms. Wachter:

The Bureau for Historic Preservation (the State Historic Preservation Office) has reviewed the above named project in accordance with Section 106 of the National Historic Preservation Act of 1966, as amended in 1980 and 1992, and the regulations (36 CFR Part 800) of the Advisory Council on Historic Preservation. These requirements include consideration of the project's potential effect upon both historic and archaeological resources.

The Bureau for Historic Preservation previously determined that the properties which are eligible for listing on the National Register of Historic Places are located within the project area of the project referenced above, and that four eligible properties would be adversely effected by this project. Based on the subsequent documentation recently submitted, the Bureau has re-evaluated the effect of this project on two historic resources.

Specifically, the landscaping plan surrounding the proposed switchyard would sufficiently screen the Jonas Law House, so as to eliminate the adverse effect on this property. In addition, due to the industrial visual intrusions on the viewshed from the Christian Hershey Farmstead, we have determined that this property will not be adversely effected.

Our office has reviewed the adverse effect documentation submitted for the M. Eyster Farmstead and The Glatfelter Residence a.k.a. The Hill Historic District. At this time, your

office should draft a Memorandum of Agreement for the property. Specific mitigation measures for the adverse effect on these properties shall be determined through consultation between the Department of Energy and the Bureau for Historic Preservation.

When a draft Agreement is completed, please submit the document to our office for review.

If you need further information in this matter please consult Caroline Hall at (717) 783-6099.

Sincerely,

Brenda Barrett
Director

BB/ch
cc: Advisory Council on Historic Preservation
John Garland, Environmental Sciences Department, EG & G
Karen Winegardner, York County Energy Partners
Melinda Higgins, Historic York, Inc.

Appendix F: Potentially Sensitive Noise Receptors

APPENDIX F: POTENTIALLY SENSITIVE NOISE RECEPTORS

Receptor 1 - Residence on Southern Perimeter of Site. This receptor is the nearest residence to the proposed facility, on the southern site boundary. The house is on a slight rise [approximately 4.6 meters (15 feet)] from the flat terrain characterizing the site. No structures or vegetation capable of significant sound attenuation presently intervene between the residence and the approximate center of the proposed facility, located about 182.9 meters (600 feet) north of the receptor. The more prominent existing noise sources include daytime noise from operation of the Roundwood Facility, and day and night noise from the mill and from traffic on Route 116.

Receptor 2 - Intersection of Roundwood *Facility* Access Driveway with Route 116. A gatehouse to the former St. Francis School, currently occupied by the Western Hemisphere Cultural Society, is located just south of the intersection of the P. H. Glatfelter Company Roundwood Facility access driveway and Route 116. Because of its location in relation to both the facility and to the proposed facility driveway, it was selected as a sensitive noise receptor. The monitoring location was at the opposite side of Route 116, at a distance from the highway approximately equal to that of the gatehouse 9.1 meters (30 feet). The elevation of the receptor location is approximately 15.2 meters (50 feet) above that of the proposed facility site; the distance from the approximate facility center is roughly 365.8 meters (1,200 feet). The dominant noise source is traffic on Route 116. Other prominent noise sources include the Roundwood Facility during the daytime, and the P. H. Glatfelter Company mill throughout the day.

Receptor 3 - Lions Club Pavilion and Fishing Area on Kessler Pond. The Lions Club operates a pavilion and picnic area on a small parcel of land leased from P. H. Glatfelter Company adjoining the southeast corner of the proposed facility site; P. H. Glatfelter Company permits public fishing on the eastern part of this parcel bordering Kessler Pond. Measurements were taken just off the northwest corner of the pavilion, a location approximately 30.5 meters (100 feet) from the bank of Kessler Pond to the east and the facility boundary to the west. The measurement location is at approximately the same elevation as the proposed facility, and about 4.6 meters (15 feet) higher than the bank used for fishing. Only a single row of medium height trees along the western boundary of the picnic area lies between the receptor location and the major noise sources of the proposed facility. The distance to the approximate center of the proposed facility is roughly 243.8 meters (800 feet). Prominent noise sources include the P. H. Glatfelter Company facility and traffic on Route 116; noise from the Roundwood Facility during the daytime is somewhat less prominent.

Receptor 4 - Eastern Bank of Kessler Pond. This receptor is on P. H. Glatfelter Company property, near the northeast corner of Kessler Pond, and across the pond approximately 182.9 meters (600 feet) northeast of the location of Receptor 3. The distance east to the approximate center of the facility is about 304.8 meters (1,000 feet); the elevation is approximately 3.0 meters (10 feet) lower. An existing P. H. Glatfelter Company building may partially screen the receptor site from the proposed locations of the major facility noise sources; no other intervening structure or terrain is apparent. This receptor location lies close to the existing mill, and on a straightline roughly equidistant between the proposed facility and the residential area represented by Receptor 5. Noise from the mill is the dominant noise source at this location; noise from night birds and frogs were also appreciable during the nighttime noise monitoring period.

Receptor 5 - P. H. Glatfelter Company Research Building off Rockery Road. The nearest sensitive land use east of the proposed facility is a small residential development on a moderate hill off Rockery Road, immediately south of Route 116. A location off the driveway to the P. H. Glatfelter Company research building, located on the western side of this residential grouping, was chosen as the representative location for these receptors. This location, while in straight line view of the proposed facility site, is somewhat closer to the site than most of the residences. It was selected, therefore, to provide a representative modeling of existing ambient noise conditions, while allowing a conservative assessment of facility noise at the different residential locations in this neighborhood. The receptor is roughly 487.7 meters (1,600 feet) from the approximate site center, and at an elevation of about 10.7 meters (35 feet) higher than the area of the proposed facility. Because of their elevation, no other structures or terrain features intervene between the residences comprising this neighborhood and the proposed facility site. However, most of the residences have substantial plantings of shrubs and trees oriented toward the site, while several residences are situated such that other residences provide some screening. The receptor location itself is only partially screened by scattered vegetation with no intervening structures between it and the facility site. Traffic noise from Route 116 is dominant at this location; noise from the mill is also appreciable, particularly during the nighttime.

Receptor 6 - Residence of T & J Breeder Farm Manager off Colonial Valley Road. The nearest residence west of the facility is the residence of the manager of the T & J Breeder Farm, located about 91.4 meters (300 feet) west of the chicken house, off Colonial Valley Road. The monitoring location at this receptor was at the edge of the back yard, facing the mill and proposed facility site. The distance from the approximate center of the proposed facility is about 975.4 meters (3,200 feet). The terrain toward the facility site is generally flat, with only the P. H. Glatfelter Company Roundwood Facility screening the receptor from the area of the proposed facility; however, somewhat less of the facility area is screened in this manner because of the placement of the residence slightly further to the south. The dominant sound source is traffic noise from Route 116, with comparatively minor contributions from the chicken house ventilation fans, the mill, and from the Roundwood Facility during its daytime hours of operation. Very quiet conditions prevail at this location during those intervals in the late night when traffic on Route 116 is absent.

Receptor 7 - Northeastern Corner of the T & J Breeder Farm. The land use at this receptor location is a chicken house with approximately 20,000 chickens. The location chosen for the receptor location was the corner of the building closest to both the proposed facility and to the rail line on which fuel shipments may arrive and on which train car couplings/uncouplings may be conducted. The receptor location is approximately 762.0 meters (2,500 feet) from the approximate center of the proposed facility; it is on level terrain, with no appreciable difference in elevation from the area of the facility. Some of the facility would, however, be screened from the chicken house by the structure of the P. H. Glatfelter Company Roundwood Facility. The dominant noises at this location were from the cooling fans of the chicken facility itself, and from traffic on Route 116.

APPENDIX G: HEC-3 Modelling Assumptions and Data

APPENDIX G: HEC-3 MODELING ASSUMPTIONS AND DATA

Assumptions

P. H. Glatfelter Company's average withdrawal at Mill Dam is 23.2 ***cubic feet per second*** cfs [15 ***million gallons per day*** (mgd)] and discharge is 19.3 cfs (12.5 mgd). P. H. Glatfelter Company's and Spring Grove water consumptive use is 3.9 cfs (2.5 mgd).

P. H. Glatfelter Company's withdrawal with the ***York County Energy Partners, L.P.*** (YCEP) facility in operation would be an average of 23.2 cfs (15 mgd) and discharge would be 15.0 cfs (9.7 mgd). P. H. Glatfelter Company's consumptive use with the YCEP facility would be 8.2 cfs (5.3 mgd).

The Susquehanna River Basin Commission (SRBC) required flow at Mill Dam is 7.62 cfs (4.93 mgd), based on SRBC Consumptive Use Approval.

Some months have a monthly average discharge of zero from Lake Marburg.

Local flow from tributaries to Mill Dam equals the difference between the recorded flow at the ***U.S. Geological Survey*** (USGS) Spring Grove ***(which includes the P. H. Glatfelter Company discharge volume)*** gage reading and the corresponding Lake Marburg release data.

Because of the control of Lake Marburg and its independence from runoff pathways, there is no consistency or pattern of flows at any point in the watershed from month to month or year to year. For this reason, local flows were calculated separately, requiring independent model runs for each year.

There is no significant seepage or uncontrolled spill from Lake Marburg.

There is no low flow augmentation from Lake Lehman and Lake PaHaGaCo. Flows from these reservoirs are intermittent and relatively small compared to Lake Marburg. (For the modeling, this assumption is conservative.)

There is a linear relationship between storage capacity of Lake Marburg and elevation. The slope used for the calculations was based on elevations 187.8 ***meters*** (m) (616 feet) and 189.9 m (623 feet) because the pool's elevation is most often between these points.

Past flows are modeled using monthly averages. When available, the monthly averages were based on daily flows. However, for most of the 1971 to 1993 period only four or five data points are available per month.

1981 is the low-flow year of record between 1971 and 1993, based on the yearly flow summaries provided by the USGS. The years 1971 to 1993 are the significant period so that the study reflects conditions after Lake Marburg was constructed.

Locations

Location 1: Lake Marburg

Lake Marburg is the only reservoir modeled in the study and the primary controlling factor in determining downstream flows. The relationships among elevation, surface area, and storage shown in Table G-1 were used for all model runs.

The monthly average inflow to Lake Marburg is calculated as the sum of the monthly average release and the difference in monthly elevations and corresponding storage. A linear storage-elevation relationship was assumed between elevations 187.8 m (616 feet) and 189.9 m (623 feet) in order to compute storage values for different elevations.

Lake Marburg's elevation was held at elevation 189.9 m (623 feet) when possible, but allowed to be drawn down as needed to maintain minimum downstream flow requirements and satisfy P. H. Glatfelter Company's water demands. Average monthly inflows to Lake Marburg, from tributaries and the diversion dam, were determined for all modeled years based on the flow data available for the respective time periods.

To model past flows, Lake Marburg's known monthly average outflow was entered into the model as the desired reservoir release. This set of data varied yearly and therefore was recalculated for each year modeled. Inflow to Lake Marburg consists of precipitation, tributary drainage, and flow diverted from Codorus Creek at the diversion dam and pumping station. This data set also varied each year because it too is a function of Lake Marburg's elevation and storage. This method of calculating inflow accounts for all precipitation, evaporation, and flow diverted to Lake Marburg. Some months have a small negative monthly inflow to Lake Marburg, indicating that evaporation exceeded precipitation. Because of mathematical limitations, HEC-3 is unable to model negative inflows and adjusts the inflow for these months to zero. Lake Marburg elevations, releases, and downstream flows were set to match the known values during the model calibration and the impact of increased water consumption was set to result in decreased creek flow rather than increased lake withdrawals; this limitation of the model has little to no effect on downstream flow predictions.

Location 2: Mill Pond

The mill pond is a small impoundment created by a weir on Codorus Creek in Spring Grove above P. H. Glatfelter Company's discharge [***river mile*** (RM) 26.3)]. No flow routing or storage capacity was modeled for the mill pond because the weir is assumed to immediately pass all inflow downstream. Inflows are provided from two sources: releases from Lake Marburg and local inflows from tributaries between Lake Marburg and the mill pond. Monthly average local inflows were calculated by subtracting the Lake Marburg release from the recorded flow at the USGS gage station and then adding a small amount of flow, 3.9 cfs (2.5 mgd), to account for P. H. Glatfelter Company's consumptive use. The local inflows, therefore, are different each month and each year. The intake for P. H. Glatfelter Company was modeled as a 23.2 cfs (15 mgd) diversion to the P. H. Glatfelter Company *p*lant. In addition to the P. H. Glatfelter Company diversion requirement, the SRBC minimum required flow of 7.62 cfs (4.93 mgd) was provided for at the outlet from the mill pond.

Location 3: P. H. Glatfelter Company Plant

Table G-1. Lake Marburg characteristics.

Elevation (feet)	Surface Area (acre)	Storage (acre-feet)
600	800	24,522
616	1,100	39,898
623	1,275	48,492

The P. H. Glatfelter Company facility was modeled as a diversion requiring a flow of 23.2 cfs (15 mgd). Approximately 19.3 cfs (12.5 mgd) of this flow is returned to Codorus Creek. The remaining 3.9 cfs (2.5 mgd) is lost through evaporation, system losses, and process uses. The P. H. Glatfelter Company plant was modeled as a separate control point because its surface intake is at mill pond, 1.6 ***kilometers*** (km) (over one mile) upstream of its discharge.

The P. H. Glatfelter Company flow requirement would not change due to the proposed Cogeneration Facility. However, the proposed YCEP facility would use a maximum 7.2 cfs (4.6 mgd) of secondary treatment plant effluent for cooling water. Of this cooling water, 4.3 cfs (2.8 mgd) would be evaporated and 2.9 cfs (1.87 mgd) would return to the P. H. Glatfelter Company wastewater treatment plant as cooling tower blowdown. Table G-2 summarizes the P. H. Glatfelter Company plant flows used in the HEC-3 model runs, which are based on the maximum cooling water usage at the YCEP facility.

Location 4: Downstream of P. H. Glatfelter Company's Discharge

This location represents an arbitrary point downstream of Spring Grove, which receives all the water discharged from P. H. Glatfelter Company and the proposed YCEP facility and all flows passed from the mill pond. The average monthly flows predicted at this location correspond to the tabulated flows recorded at the USGS Spring Grove gage station. In reality, the gage station is upstream of P. H. Glatfelter Company's discharge and, therefore, does not record their discharge; however, P. H. Glatfelter Company provides USGS with their daily effluent flows. USGS adds this flow to the gage readings to accurately measure stream flows immediately below P. H. Glatfelter Company's discharge.

Flow Regimes

The potential effects of the proposed 4.3 cfs (2.8 mgd) consumptive use by the YCEP facility were analyzed for a normal year and a low-flow year. The normal year is a fictitious year generated from average monthly flow data since the construction of Lake Marburg. Average elevations, inflows, and releases for Lake Marburg were calculated using P. H. Glatfelter Company data from the years 1974 to 1993. Average flows at the Spring Grove ***(which includes the P. H. Glatfelter Company discharge volume)*** USGS gage station were determined using USGS data from the years 1971 to 1992. The low-flow year is based on monthly averages for 1981, the year with the lowest average annual flow on record since the construction of Lake Marburg.

Table G-2. P. H. Glatfelter Company's water intake and discharge.

	Total Intake (cfs)	Total Discharge (cfs)	Consumptive Use (cfs)	Percent Returned
Current Conditions	23.2 *(15.0 mgd)*	19.3 *(12.5 mgd)*	3.9 *(2.5 mgd)*	83%
Proposed Conditions	23.2 *(15.0 mgd)*	15.0 *(9.7 mgd)*	8.2 *(5.3 mgd)*	65%

Model Development and Calibration

The normal and low-flow years were modeled independently. Therefore, each year was separately calibrated by entering the input data in the following manner:

- monthly average inflows to Lake Marburg were calculated flows that vary both monthly and yearly; however, once these values were determined and entered for a particular year, they remained fixed and ultimately limit the frequency and volume of water that may be released for downstream augmentation;
- monthly average releases from Lake Marburg were determined from P. H. Glatfelter Company flow records and vary both monthly and yearly; and
- monthly average local inflow to the Mill Dam was calculated by adjusting values until the HEC-3 flows matched actual flow at the Spring Grove ***(which includes the P. H. Glatfelter Company discharge volume)*** gage.

At this point, local inflows to the mill pond were held constant and the additional 4.3 cfs (2.8 mgd) consumptive use from the YCEP facility was added to the system to predict the impacts on Codorus Creek's flow and Lake Marburg's elevation.

Appendix H: Water Balance Diagrams

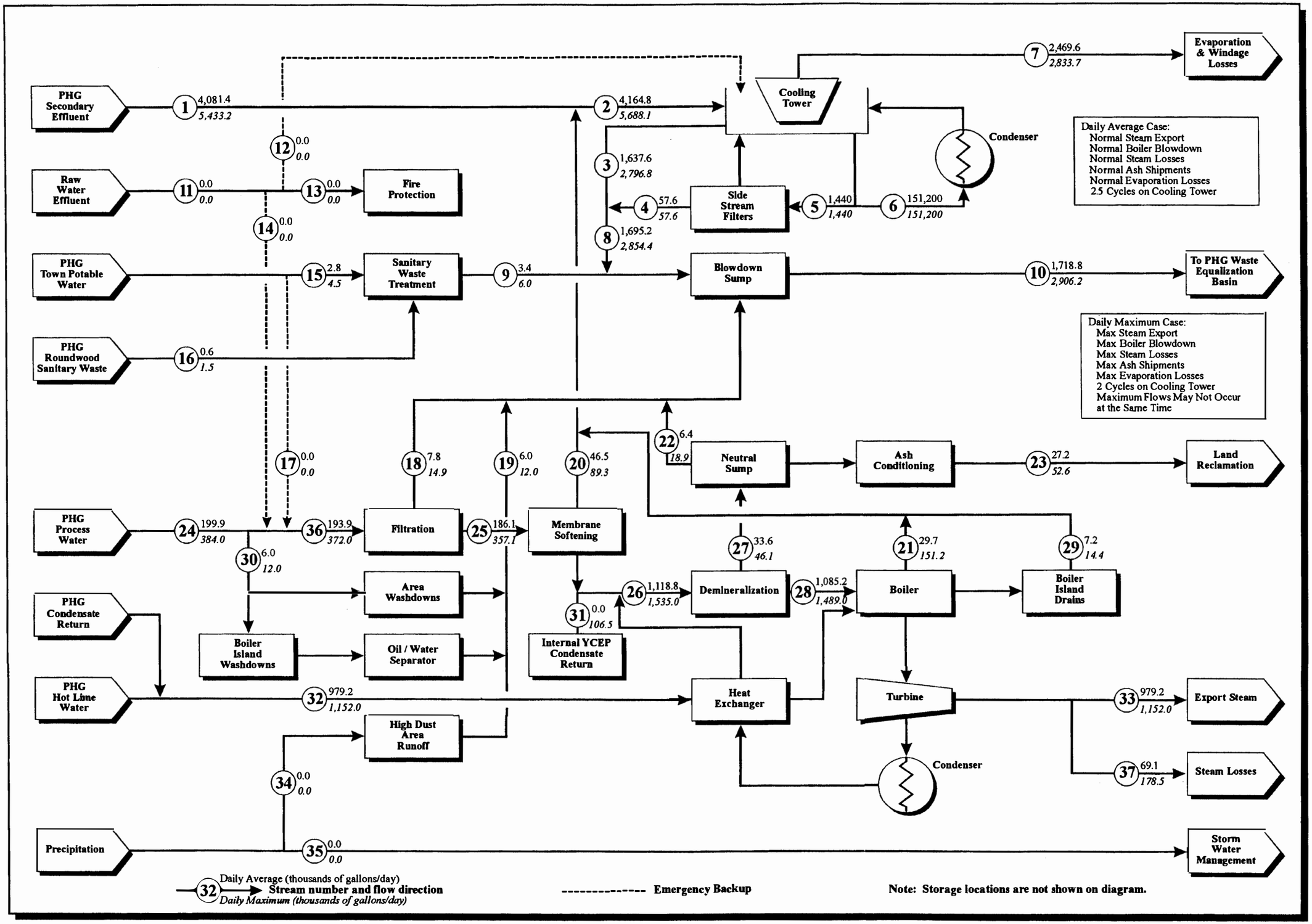


Figure H-1. Water balance diagram for the proposed YCEP Cogeneration Facility at the North Codurus Township site.

Notes:

1. Stream (8) & (10) based on the use of ion exchange technology for demineralization. Regeneration waste will be neutralized before discharge to low quality pond. Two 100 GPM trains are projected.
2. Stream (12) daily average boiler blowdown based on 1% (by weight) of steam make for daily average. 2.5% for maximum.
3. Stream (16) is based on a total design circulating water rate of 100,000 GPM and delta T 22 deg F. and a balance of plant cooling duty of 10%.
4. Stream (17) is based on 12 cycles of concentration on average and 10 cycles of conc tration for maximum after item 18 is deducted from daily averages.
5. Stream (18) based on operation of sidestream filtration system with a design service rate of 2% of the design circulating water rate and backwash for 5 mins/shift on average and 18 mins/s ift for maximum.

   Stream (22) conditioned ash ba s:
6. A. Solids Production

	Bottom
Avg.	7.2 ton/hr.
Max.	10.8 ton/hr.

   B. Wetting Requirements (dry wt. basis)

	Bottom
Avg.	7.5%
Max.	10.0%

7. Streams (19), (20), (25), & (26) based on the following:

   A. ainfall

	Storm	Intensity
Daily Avg.	1 yr., 24 hr.	3.0
Daily Max.	10 yr., 24 hr.	5.0

   B. Areas

Fuel Handling	64,000 ft. sq.
Ash & Baghouse	29,000 ft. sq.
Non-Contaminated	938,000 ft. sq.
Limestone	102,000 ft. sq.

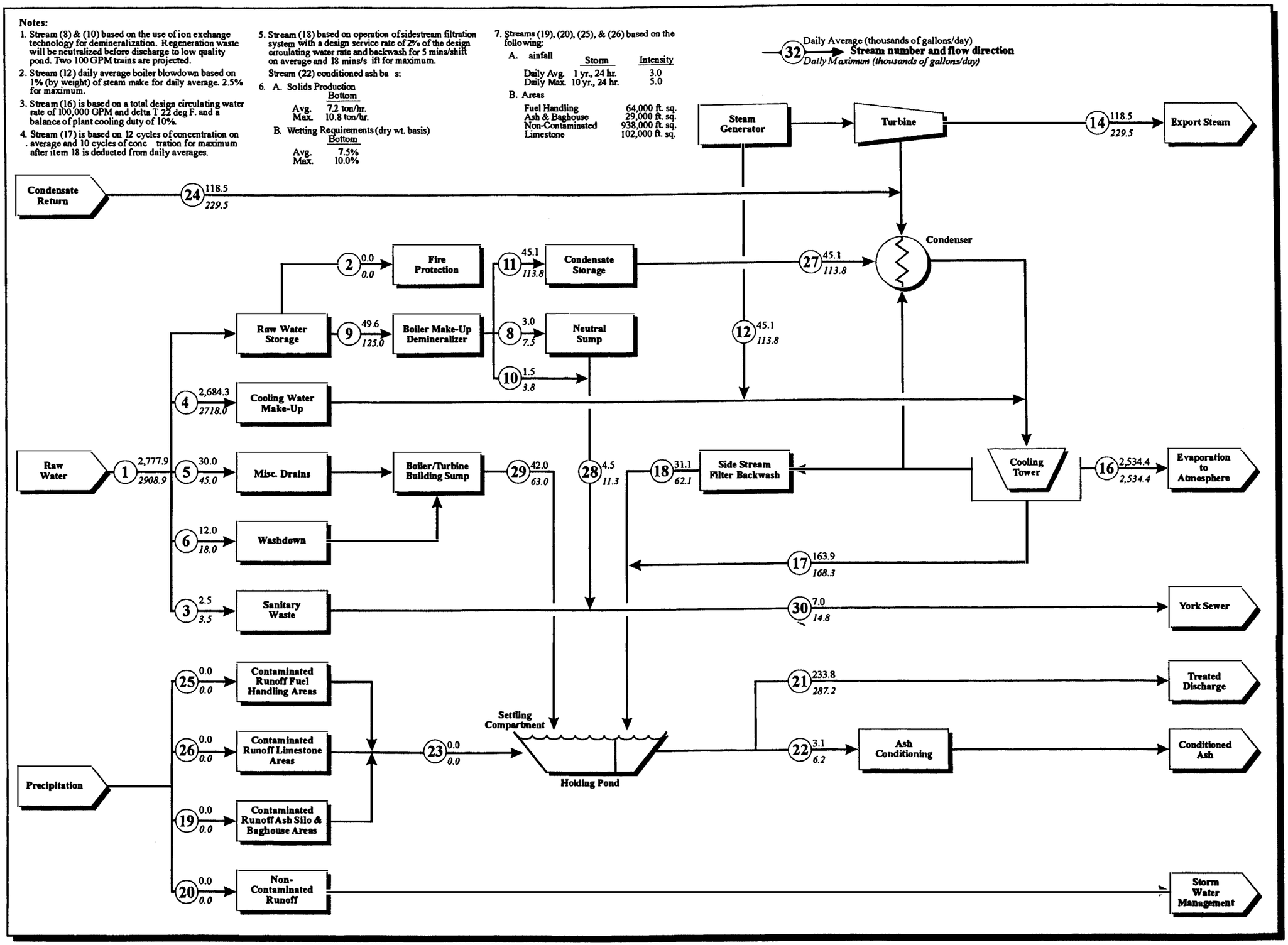


Figure H-2. Water balance diagram for the YCEP Cogeneration Facility at the West Manchester Township alternative site.

Appendix I: *Requirements, Conditions, and Assumptions Associated with* the YCEP PSD Permit Application

APPENDIX I: INFORMATION CONTAINED IN THE YCEP PSD PERMIT APPLICATION

Applicability of Standards

York County Energy Partners, L.P. (YCEP) will meet all applicable Federal and Commonwealth air quality standards -- subject to ***New Source Performance Standards (NSPS)*** subpart Da, Electric Utility Generating Units, ***Prevention of Significant Deterioration (PSD)*** regulations that require ***Best Available Control Technology (BACT)*** for those pollutants emitted in significant amounts, and compliance with the ***Ambient Air Quality Standards (AAQS)*** and PSD increments. In addition, Commonwealth regulations (Title 25, Part I, Article III) also apply to the proposed facility and require controls of particulate matter, sulfur dioxide, and visible emissions. Specific Commonwealth of Pennsylvania emissions standards [in the category of continuous emissions monitoring (CEM) and visibility of emissions] were found to be applicable to the proposed facility. However, NSPS requirements also address CEM and opacity limits for electric utility boilers and are at least as restrictive as ***Pennsylvania*** emission standards.

The South Central Pennsylvania Interstate Air Quality Control region is designated as being in attainment (or unclassifiable) with the ***National Ambient Air Quality Standards (NAAQS)*** for all criteria pollutants except ozone and is classified as marginal nonattainment area for ozone based on ambient air monitoring. However, Pennsylvania is included within the Northeast Ozone Transport Region and is subject to Federal regulations as a moderate nonattainment area for ozone. For these reasons, to the extent that the proposed facility qualifies as a major stationary source of ***oxides of nitrogen (NO_x)*** or volatile organic compounds (VOC), the precursors to ozone formation, it ***would*** be subject to New Source Review (NSR) for the pollutant as a facility to be located in a nonattainment area.

The proposed facility is a fossil fuel-fired steam electric plant of more than 250 ***million British thermal units (MMBtu)***/hr heat input (one of the 28 specified, major stationary source categories), and ***would have*** the potential to emit more than 100 ***tons per year (tons/yr)*** of a criteria pollutant; therefore, the proposed facility ***would be*** subject to ***F***ederal PSD regulations. The PSD review involves the following: BACT analysis; PSD increment consumption analysis (including consideration of other increment-consuming sources in the area); NAAQS impact analysis; nonattainment area impact analysis; impacts on Class I area analysis; and additional impact analysis. Currently, promulgated emission standards for hazardous air pollutants apply to seven specific compounds (vinyl chloride, beryllium, mercury, benzene, asbestos, radionuclides, and inorganic arsenic) emitted from specific processes (40 CFR ***Part*** 61). However, none of those ***National Emissions Standards for Hazardous Air Pollutants (NESHAPS) would apply*** to the proposed YCEP facility. The ***Clean Air Act (CAA) Amendments of 1990*** expanded the list of hazardous ***air*** pollutants (HAP***s***) to 189. However, electric utility steam generating units are not currently listed as a category of sources subject to HAP standards.

In 1993, ***the Pennsylvania*** Environmental Quality Board adopted as final rulemaking ***Reasonably Available Control Technology (RACT)*** requirements applicable to major stationary sources of VOC and ***oxides of nitrogen*** (NO_x) (which responds to requirements imposed by Section 182 of the ***CAA Amendments of 1990***). Pursuant to the RACT regulation, the proposed YCEP facility would be

considered a major stationary source of *oxides of nitrogen* (NO_x) (greater *than* 100 *tons/yr*) but not VOC (less than 50 *tons/yr*). It is not likely that the RACT determinations under this regulation will be more stringent than the BACT standards (under *the* PSD) or the ***Lowest Achievable Emission Rate (LAER)*** standard (under NSR) for *oxides of nitrogen* (NO_x).

Under NSR requirements, new emissions of ***oxides of nitrogen (NO_x)*** would be required to be offset at a 1.15:1 ratio with emission reduction credits (ERCs) obtained from a newly established registry system. As such, a new major stationary source of ***oxides of nitrogen (NO_x)*** pollutants would be required to implement technology that achieves the LAER.

Operating Standards

The PSD Permit Application is based on continuous operations -- 24 hours/day, 365 days/year; there is some discussion in *the* PSD Permit Application on less than 100 *percent* load operations (50 *percent* load) and the resulting impacts (increases) on VOC levels.

Type and Amounts of Input Fuels

Maximum heat input for the proposed project *would be* 2,624 *MMBtu* per hour (MMBtu/hr). This *would be* equivalent in the PSD Permit Application to a coal feed rate of 103.3 tons per hour. Primary fuel would be run-of-mine, washed, eastern (Pennsylvania or West Virginia) bituminous coal. ***Subsequent to filing the PSD application, YCEP has identified the coal supplier as the CONSOL Barley-Enlow mine in Southwestern PA.*** The washed coal would have a sulfur content of two *percent* or less. Propane would be used as supplemental fuel for start-up burners in the CFB boiler in order to warm the CFB boiler prior to firing the coal fuel.

The proposed project would operate on bituminous coal for up to 8,760 hours per year (904,820 tons/year coal) and on propane for up to 740 hours per year ***[437,000 liters per year*** (115,700 gallons per year)].

Emissions Limitations

Emission parameters used in the PSD Permit Application represent the anticipated worst-case emissions scenario, based upon the current design of *a* facility at 100 *percent* load. Emission factors ***for the proposed facility were*** based on *a* heat input rate of 2,624 MMBtu/hr. Gas concentrations and particulate matter concentrations were based on flue gas flow rate of 758,700 ***cubic feet/minute*** (cfm) at 280°F ***(138°C)***.

The proposed YCEP facility would consist of the following maximum emissions limitations (based on the application of *provided* BACT listed in parenthesis) for criteria pollutants:

- ***Particulate matter (PM)/PM less than 10 microns in diameter (PM_{10})*** — 0.011 lb/MMBtu (fabric filter)

- ***Sulfur dioxide*** (SO_2) - 0.25 lb/MMBtu (92 ***percent*** removal efficiency with ***limestone*** sorbent injection into the fluidized bed)
- ***Oxides of nitrogen*** (NO_x) - 0.125 lb/MMBtu (selective noncatalytic reduction)
- ***Carbon monoxide*** (CO) - 0.15 lb/MMBtu (combustion control)
- non-methane VOCs - 0.004 lb/MMBtu (combustion control)

Based on the implementation of BACT, the maximum allowable facility-wide emissions inventory would be as follows:

- Particulate matter (assumed to be all PM_{10}) would be emitted at a rate of 127 ***tons/yr***;
- Sulfur dioxide (SO_2) would be emitted at a rate of 2,891 ***tons/yr*** (which assumes firing of a 2 ***percent*** sulfur coal, oxidation of all sulfur to ***sulfur dioxide*** (SO_2), and 92 ***percent*** removal of ***sulfur dioxide*** (SO_2) with ***limestone*** sorbent injection technology);
- Nitrogen dioxide (NO_2) would be emitted at a rate of 1,437 ***tons/yr***;
- Carbon monoxide (CO) would be emitted at a rate of 1,726 ***tons/yr***; and
- VOCs would be emitted at a rate of 48 ***tons/yr***.

Solids Output

The boiler would generate 23 tons per hour fly ash and 8 tons per hour bottom ash. CFB ash byproducts are approved by the ***Pennsylvania Department of Environmental Resources*** (PADER) Residual Waste Regulations as a beneficial use material for coal mine reclamation activities. Attachment 9 to the PSD Permit Application discusses the detailed plans for disposal of waste, including the reclaiming of coal mine areas (Harriman mines in Schuylkill County, PA) using ash byproduct from the proposed plant.

P. H. Glatfelter Company Power Boiler No. 4

As part of the proposed project's operation, P. H. Glatfelter Company would be curtailing operation of one of its existing coal fired boilers. This boiler, known as Power Boiler No. 4, would be placed on hot stand-by (year round). The proposed YCEP facility would provide sufficient high pressure steam to ***the*** P. H. Glatfelter Company mill to allow it to curtail operations of its Power Boiler No. 4. This operational configuration would result in a net reduction in emissions of ***sulfur dioxide*** (SO_2), ***oxides of nitrogen*** (NO_x) ***and particulate matter***. During periods when the proposed YCEP facility is shut down for maintenance, ***the*** P. H. Glatfelter's Power Boiler No. 4 would operate to provide steam supply needed for paper mill operation. Under rare instances (loss of steam production from another boiler within the

P. H. Glatfelter Company facility), Power Boiler No. 4 would be operated temporarily as a back-up to replace loss of steam production during the P. H. Glatfelter Company power boiler outage. Note: more information on the curtailment of the Power Boiler No. 4 is included in this ***appendix*** under the category of ***oxides of nitrogen*** (NO_x) offsets/ERCs.

Oxides of Nitrogen (NO_x) Offsets/ERCs

By virtue of the proposed project being located in the Northeast Ozone Transport Region, it would be required to offset any ***oxides of nitrogen*** (NO_x) emissions at a ratio of 1.15 to 1. In addition, the facility would also be required to achieve the LAER for ***oxides of nitrogen*** (NO_x) [this will establish the proposed facility's appropriate ***oxides of nitrogen*** (NO_x) emission level].

Sources for ***oxides of nitrogen*** (NO_x) offsets ***would be*** the P. H. Glatfelter Company and Transcontinental Gas Pipe Line (TGPL) Corporation. ERCs ***would*** be created by these sources and transferred to YCEP. The total ERCs required to provide a 1.15 to 1 offset of ***oxides of nitrogen*** (NO_x) ***would be*** 1,652 ***tons/yr***. ERCs projected to be received from these two sources (taking into account reductions for RACT), amount to 784 ***tons/yr*** from TGPL with the remainder, 868 ***tons/yr***, from ***the*** P. H. Glatfelter Company. It is anticipated that following RACT modifications of the P. H. Glatfelter ***Power Boiler*** No. 4, up to 950 ***tons/yr*** of ERCs would be created and available for transfer to YCEP. ***Power Boiler*** No. 4, based on recent monitoring, emits approximately 1,200 ***tons/yr*** of ***oxides of nitrogen*** (NO_x).

TGPL owns and operates a natural gas pipe line compressor station near Delta, York County, Pennsylvania. This station is referred to as Station 195. Station 195 includes five natural gas-fired compressor engines, with two of these units being Cooper Bessemer 12V-250 engines (Units No. 4 and 5). YCEP and TGPL have entered into an agreement whereby modifications would be performed to Units No. 4 and 5 ***that*** would permanently reduce their ***oxides of nitrogen*** (NO_x) emissions. The agreement requires TGPL to obtain all necessary permit modifications to create and transfer ERCs to YCEP. These modifications would occur prior to commencement of operation of the proposed YCEP facility and are estimated to result in the creation of up to 800 ***tons/yr*** of ERCs.

The total quantity of ERCs ***that would be*** provided to the proposed YCEP cogeneration operation from these two existing sources would be in excess of the 1.15 to 1 ratio on offset requirements. This quantity of ***oxides of nitrogen*** (NO_x) offsets ***would*** be available after the existing sources implement RACT requirements.

Oxides of nitrogen (NO_x) BACT Control/Emissions

Aqueous ammonia or urea injection technology known as selective non-catalytic reduction would be employed to control ***oxides of nitrogen*** (NO_x). ***The*** equipment manufacturer ***has guaranteed that its*** control method ***would*** achieve a 40 ***percent*** or greater reduction in ***oxides of nitrogen*** (NO_x) emissions. ***Oxides of nitrogen*** (NO_x) emissions are assumed to consist entirely of ***nitrogen dioxide*** (NO_2).

Sulfur Oxide (SO_x) BACT Control/Emissions

A minimum of 92 percent of the sulfur oxide (SO_2) emissions *would be controlled* by limestone sorbent injection into *the* boiler at a maximum feed rate of 23 tons per hour (calcium to sulfur ratio of 2.5 to 1).

Particulate BACT Control/Emissions

All particulate matter *that would be* discharged is conservatively assumed to be PM_{10}. A fabric filter collection system (baghouse) would be used to control particulate emissions to 0.011 lbs/MMBtu. *The b*aghouse would achieve an overall particulate matter removal efficiency of greater than 99.9 *percent* and would result in particulate matter concentration in the stack gas of 0.00421 grains/atmospheric ft^3 at 280°F *(138°C)*.

Hydrogen Fluoride (HF) Emissions

The HF emission rate (0.63 *tons/yr*) is based upon the assumption that all fluoride present in coal *would react* with water vapor to form HF, and 99 *percent* of the HF *would be* removed due to limestone sorbent injection technology.

Metal Emissions and Other Air Toxics

Metal emission rates (arsenic *(As)* - 0.036 *tons/yr*; beryllium *(Be)* - 0.005 *tons/yr*; cadmium *(Cd)* - 0.001 *tons/yr*; total chromium *(Cr)* - 0.081 *tons/yr*; mercury *(Hg)* - 0.127 *tons/yr*, and nickel *(Ni)* - 0.059 *tons/yr*) are conservative, based on the assumption that all metals present in the coal become entrained in the flue gas as fly ash with subsequent removal in the baghouse at a removal efficiency of 99.5 *percent*. However, since mercury is a metal with high vapor pressure, it was assumed that it is entirely emitted to the atmosphere with no removal efficiency in the baghouse.

Based on the pilot plant sampling program, the proposed YCEP cooling tower would not be a major source of hazardous air pollutants under Title III of the *CAA Amendments of 1990* as a source which emits 10 *tons/yr* of any one hazardous air pollutant or a total of 25 *tons/yr* of the list of 189 hazardous air pollutants.

Continuous Monitoring Equipment *(CEM)*

The proposed facility would be equipped with *a* CEM system located in the stack, downstream of the pollution control equipment. The CEM system would monitor exhaust gas flow, *sulfur dioxide* (SO_2), *oxides of nitrogen* (NO_x), opacity, and either carbon dioxide (CO_2) or oxygen (O_2).

Vendor Guarantees

Vendor guarantee levels of performance *have been received* from the fluidized bed boiler manufacturer (related to *sulfur dioxide* (SO_2), *carbon monoxide* (CO), and VOC emissions), *the* thermal $DeNO_x$ equipment vendor [*oxides of nitrogen* (NO_x) emissions] and *the* baghouse vendor (PM_{10} emissions).

Baseline Emissions

The ***sulfur dioxide*** (SO_2) and meteorological data from the West Manchester site ***have been*** considered by the PADER to be representative of the air quality of the proposed YCEP site.

Other

Cooling water system make-up requirements for the proposed YCEP facility would be supplied from the P. H. Glatfelter Company wastewater treatment plant secondary effluent discharge. The average consumption would be ***9.45 million liters per day*** (2.5 ***million gallons per day***).

Appendix J: Organizational Conflict of Interest Statements

NEPA DISCLOSURE STATEMENT FOR PREPARING AN ENVIRONMENTAL IMPACT STATEMENT ON THE YCEP COGENERATION PROJECT

CEQ Regulations at 40 CFR 1506.5(c), which have been adopted by the DOE (10 CFR 1021), require contractors who will prepare an EIS to execute a disclosure specifying that they have no financial or other interest in the outcome of the project. The term "financial interest or other interest in the outcome of the project" for purposes of this disclosure is defined in the March 23, 1981 guidance "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations". 46 FR 18026-18038 at Questions 17a and b.

"Financial or other interest in the outcome of the project" includes "any financial benefit such as a promise of future construction or design work in the project, as well as indirect benefits the contractor is aware of (e.g., if the project would aid proposals sponsored by the firm's other clients)." 46 FR 18026-18038 at 1803.

In accordance with these requirements Dynamac Corp hereby certifies as follows:
COMPANY NAME

Check either (a) or (b)

(a) Dynamac Corporation has no financial or other interest in the outcome of the YCEP Cogeneration Project
COMPANY NAME

(b) _____ has the following financial or other interest in the outcome of the YCEP Cogeneration Project and hereby agrees to divest itself of such interest prior to initiating any technical analysis in support of this project.
COMPANY NAME

Financial or Other Interests

1.
2.
3.

Certified by: Sam Petrocelli

SIGNATURE

Sam R. Petrocelli

NAME

Vice-President, Environmental Sciences

TITLE

April 1, 1994

DATE

NEPA DISCLOSURE STATEMENT FOR PREPARING AN ENVIRONMENTAL IMPACT STATEMENT ON THE YCEP COGENERATION PROJECT

CEQ Regulations at 40 CFR 1506.5(c), which have been adopted by the DOE (10 CFR 1021), require contractors who will prepare an EIS to execute a disclosure specifying that they have no financial or other interest in the outcome of the project. The term "financial interest or other interest in the outcome of the project" for purposes of this disclosure is defined in the March 23, 1981 guidance "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Action Regulations." 46 FR 18026-18038 at Questions 17a and b.

"Financial or other interest in the outcome of the project" includes "any financial benefit such as a promise or future construction or design work in the project, as well as indirect benefits the contractor is aware of (e.g., if the project would aid proposals sponsored by the firm's other clients)". 46 FR 18026-18038 at 1803.

In accordance with these requirements EG&G TSWV, Inc. hereby certifies as follows:
COMPANY NAME

Check either (a) or (b)

(a) EG&G TSWV, Inc. has no financial or other interest in the outcome of the YCEP Cogeneration Project
COMPANY NAME

(b) _____ has the following financial or other interest in the outcome of the YCEP Cogeneration Project and hereby agrees to divest itself of such interest prior to initiating any technical analysis in support of this project.
COMPANY NAME

Financial or Other Interests

1.
2.
3.

Certified by:

Randall A. Wotring
SIGNATURE

Randall A. Wotring
NAME

Vice President, General Manager
TITLE

October 24, 1994
DATE

NEPA DISCLOSURE STATEMENT FOR PREPARING AN ENVIRONMENTAL IMPACT STATEMENT (EIS) ON THE YORK COUNTY ENVIRONMENTAL PROGRAM (YCEP) COGENERATION PROJECT

Council on Environmental Quality (CEQ) Regulations at 40 CFR 1506.5(c), which have been adopted by the U.S. Department of Energy (DOE) (10 CFR 1021), require contractors who will prepare an EIS to execute a disclosure specifying that they have no financial or other interest in the outcome of the project. The term "financial interest or other interest in the outcome of the project" for purposes of this disclosure is defined in the March 23, 1981 guidance "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations," 46 FR 18026-18038 at Questions 17a and b.

"Financial or other interest in the outcome of the project" includes "any financial benefit such as a promise of future construction or design work in the project, as well as indirect benefits the contractor is aware of (e.g., if the project would aid proposals sponsored by the firm's other clients)," 46 FR 18026-18038 at 1803.

In accordance with these requirements **Energetics, Incorporated** hereby certifies as follows:

Complete either (a) or (b)

(a) Energetics, Incorporated
Company Name

has no financial or other interest in the outcome of the YCEP Cogeneration Project

(b) _____
Company Name

has the following financial or other interest in the outcome of the YECP Cogeneration Project and hereby agrees to divest itself of such interest prior to initiating any technical analysis in support of this project.

Financial or Other Interest

1.
2.
3.

Certified by:

_____
Signature

Howard E. Lowitt
Name

Senior Vice President
Title

October 20, 1994
Date

NEPA DISCLOSURE STATEMENT FOR PREPARING AN ENVIRONMENTAL IMPACT STATEMENT ON THE YCEP COGENERATION PROJECT

CEQ Regulations at 40 CFR 1506.5(c), which have been adopted by the DOE (10 CFR 1021), require contractors who will prepare an EIS to execute a disclosure specifying that they have no financial or other interest in the outcome of the project. The term "financial interest or other interest in the outcome of the project" for purposes of this disclosure is defined in the March 23, 1981 guidance "Forty Most Asked Questions Concerning CEQ's National Environmental Policy Action Regulations." 46 FR 18026-18038 at Questions 17a and b.

"Financial or other interest in the outcome of the project" includes "any financial benefit such as a promise or future construction or design work in the project, as well as indirect benefits the contractor is aware of (e.g., if the project would aid proposals sponsored by the firm's other clients)". 46 FR 18026-18038 at 1803.

In accordance with these requirements Technology & Management Services, Inc. hereby certifies as follows:
COMPANY NAME

Check either (a) or (b)

(a) Technology & Management Services, Inc has no financial or other interest in the outcome of the YCEP Cogeneration Project
COMPANY NAME

(b) _____ has the following financial or other interest in the outcome of the YCEP Cogeneration Project and hereby agrees to divest itself of such interest prior to initiating any technical analysis in support of this project.
COMPANY NAME

Financial or Other Interests

1.
2.
3.

Certified by:



SIGNATURE

James Veres

NAME

Vice President

TITLE

May 16, 1995

DATE

APPENDIX K: DOE's Independent Need for Power Analysis: York County Energy Partners

MEMORANDUM FOR FILE

FROM: ANTHONY J. COMO
DIRECTOR
OFFICE OF COAL & ELECTRICITY

SUBJECT: Need for Power: York County Energy Partners

The Office of Coal & Electricity (OCE) has evaluated the Need for Power from the York County Energy Partners L.P. (YCEP) clean-coal project. This evaluation was performed on two bases: (1) for the Metropolitan Edison Company (Met-Ed) system operating as an "island"; and (2) for the entire Pennsylvania-New Jersey-Maryland Interconnection.[1]

In determining the Need for Power on the Met-Ed system, OCE utilized a computer model known as ICARUS, which stands for Investigating Cost and Reliability of Utility Systems. This is a production costing program which uses probabilistic simulation to account for forced outage rates and variations in daily, weekly, and seasonal load patterns. The program calculates the likely fuel cost for operating a utility system and also the resulting reliability index in terms of Loss of Load Probability (LOLP) and Expected Unserviced Energy.

LOLP is the probability of load (peak demand) exceeding the amount of available generating capacity. ICARUS calculates the number of days per year that the shortfall is likely to occur. The reciprocal of this number is more commonly used to express utility system reliability: the number of years required to accrue one day of an imbalance between generation and peak demand. The LOLP criterion used by many utility systems throughout the country, and the PJM power pool and MAAC reliability council in particular, is 1 day in 10 years or "1-in-10."

Met-Ed is one of the three operating companies of the General Public Utilities (GPU) system, which also is a member of PJM and MAAC. As a member of MAAC, GPU is "assigned" a portion of the reserve capacity required for MAAC to maintain the "1-in-10" reliability criterion as a whole. GPU in turn assigns a portion of this capacity obligation to

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[1] The Pennsylvania-New Jersey-Maryland Interconnection (PJM) is a power pool comprised of the member systems of the Mid-Atlantic Area Council (MAAC). MAAC is one of the regional reliability councils of the North American Electric Reliability Council. The information used to evaluate the Need for Power of the PJM power pool was extracted from the annual MAAC "Regional Reliability Council Coordinated Bulk Power Supply Program," submitted to the Department of Energy on April 1, 1994.

its member operating companies. This translates to a reserve margin obligation for Met-Ed of between 22 percent and 24 percent.

The attached tables show the capacity reserve margins for the Met-Ed system without the YCEP project in service. The tables also show the additional amount of generating capacity required in order for the Met-Ed system to achieve the "1-in-10" reliability index if it were to be operated as an island with no electrical interconnections to the PJM power pool.

Table 1 is based on the peak demand projections contained in the Pennsylvania Public Utility Commission (PUC) report titled, "Electric Power Outlook for Pennsylvania 1993-2013." This table shows that, without the 227 MW of capacity contributed by the YCEP project, Met-Ed reserve margins would range from 0.0 percent to 13.3 percent during the period 1998 (the year the YCEP project is scheduled for installation) through 2013. This range is well below the Met-Ed target reserves of 22 percent to 24 percent. The table also shows that without YCEP, additional generating capacity ranging from 464 megawatts (MW) to 686 MW would be required for Met-Ed to achieve a reliability index of "1-in-10." This additional requirement is greater than the 227-MW capacity of the YCEP project. Therefore, even with the YCEP project in service, this analysis indicates that Met-Ed would still require additional supply resources to meet the "1-in-10" reliability index.

Since the Need for Power is a function of load forecast, OCE also evaluated the Met-Ed system under a lower load forecast than that contained in the PUC report. Table 2 replicates the approach taken in Table 1 but with an assumed annual growth in peak demand of 1.5 percent instead of the 1.85 percent average annual growth rate used in the PUC report.

As expected under the lower load forecast, reserve margins are increased and the amount of additional capacity required to achieve a "1-in-10" reliability index is reduced. However, reserve margins still remain well below the target reserve levels and the amount of additional capacity needed to achieve "1-in-10" is still greater than the capacity of YCEP for the 1998-2013 time period.

Information for the entire MAAC (or PJM) system was only available for the years 1994 through 2003. Reserve margins on the MAAC system are projected to range from a high of 18.4 percent in 1998 (the year YCEP is proposed for operation) to a low of 12.0 percent in 2003. If direct load control and interruptible demands are considered, these reserve margins increase to 24.5 percent in 1998 and 18.4 percent in 2003. Because of the size of the MAAC system, no conclusions can be drawn concerning the absolute need for the YCEP project at the MAAC level. However, these reserve margins are generally below the MAAC target values and would tend to indicate a general need for additional resources (or demand side action) on a MAAC-wide basis.

OCE feels that the need and value of the YCEP is demonstrated in the above analysis and the attached tables. However, other factors noted in our review tend to further support the need for the project. It should be of no small concern that 400 MW of Met-Ed's existing coal-

fired generating capacity is already 40 years old. Even if a life-extension program precludes the need to retire these plants during the study period, extended outages for retrofit and possible derations to meet emission standards under the Clean Air Act Amendment of 1990 would reinforce the need for YCEP.

TABLE 1
Metropolitan Edison Company
Loads, Resources, and Reserves: 1998 - 2013
(Base Load Growth Rate)

YEAR	Peak[2] Demand (MW)	Total Resources w/o YCEP (MW)	Reserves w/o YCEP (MW)	Reserves w/o YCEP (%)	Additional Reserves Needed for 1-in-10 (MW)
1998	2133	2378	245	11.5	464
1999	2179	2378	199	9.1	503
2000	2219	2378	159	7.2	537
2001	2258	2378	120	5.3	571
2002	2298	2378	80	3.5	606
2003	2337	2333	-4	0.0	686
2004	2376	2475	99	4.2	618
2005	2421	2475	54	2.2	663
2006	2466	2617	151	6.1	600
2007	2510	2729	219	8.7	570
2008	2555	2729	174	6.8	615
2009	2599	2871	272	10.5	550
2010	2643	2828	185	7.0	639
2011	2689	2970	281	10.4	574
2012	2733	3096	363	13.3	537
2013	2777	3096	319	11.5	590

[2] Demand values obtained from Pennsylvania PUC report titled "Electric Power Outlook for Pennsylvania 1993 - 2013." Growth rate equates to an average annual rate of 1.85%.

TABLE 2
Metropolitan Edison Company
Loads, Resources, and Reserves: 1998 - 2013
(Lower Load Growth Rate)

YEAR	Peak[3] Demand (MW)	Total Resources w/o YCEP (MW)	Reserves w/o YCEP (MW)	Reserves w/o YCEP (%)	Additional Reserves Needed for 1-in-10 (MW)
1998	2087	2378	291	13.9	424
1999	2118	2378	260	12.3	451
2000	2150	2378	228	10.6	478
2001	2182	2378	196	9.0	505
2002	2215	2378	163	7.4	534
2003	2248	2333	85	3.8	609
2004	2282	2475	193	8.5	536
2005	2316	2475	159	6.9	571
2006	2351	2617	266	11.3	500
2007	2386	2729	343	14.4	464
2008	2422	2729	307	12.7	501
2009	2458	2871	413	16.8	430
2010	2495	2828	333	13.3	514
2011	2532	2970	438	17.3	443
2012	2570	3096	526	20.5	400
2013	2609	3096	487	18.7	450

[3] Demand values based on 1.5% annual growth rate from base 1994 value of 1966 MW.

TABLE 3

Key Assumptions and Data Sources

1. Inventory of generating units used in ICARUS model was obtained from the MAAC "Regional Reliability Council Coordinated Bulk Power Supply Program," submitted to the Department of Energy on April 1, 1994.

2. Generating capacities used in ICARUS reflect summer ratings as reported in the MAAC report noted above. Consequently, the column labled "Total Resources w/o YCEP" may show some slight variations compared with the total supply resources shown in Pennsylvania PUC report.

3. No retirements were assumed.

4. Equivalent forced outage rates for generating units were based on Generating Availability Data System (GADS) Report 1989 - 1993 published by the North American Electric Reliability Council. Rates for combustion turbines and internal combustion engines were based on equivalent availability factors published in the GADS report.

5. Base case peak demand forecast matched the 20-year projections contained in the Pennsylvania PUC report titled, "Electric Power Outlook for Pennsylvania 1993 - 2013." Lower load growth rate case assumed a 1.5 percent annual growth rate starting with a 1994 peak demand of 1966 MW. In both cases, the lower summer peak demands were utilized when calculating the additional capacity required to achieve a "1-in 10" reliability index. Monthly peak loads and load factor profiles were taken from the MAAC report noted in item 1 above.

APPENDIX L: DOE's Independent Estimate of Radionuclide Emissions

Appendix L: DOE Independent Estimate of Radionuclide Emissions

Background

Radionuclides are regulated as a hazardous air pollutant pursuant to rules promulgated by the EPA under Title III of the Clean Air Act (40 CFR Part 61). However, under the National Emissions Standards for Hazardous Air Pollutants (NESHAP) governing radionuclides (54 FR 51654), the EPA determined ". . . that current levels of radionuclide emissions from coal-fired boilers represent a level of risk that protects the public health with an ample margin of safety." Therefore, more stringent emission standards for coal-fired boilers were found to be unnecessary to protect the public from radiation hazards.

Although there are no standards governing radionuclide emissions specifically from coal-fired utility boilers, under the National Environmental Policy Act (NEPA), DOE is required to assess the potential impacts from its proposed action (YCEP coal-fired CFB cogeneration facility). During the scoping process conducted as part of the NEPA process, DOE received several comments concerning radioactivity from the proposed facility. To address these concerns, the agency requested that the Industrial Participant assess the health effects of radionuclide emissions from the proposed facility.

The study *(Weston, 1994b)* assessing the effects of radionuclide emissions used EPA's emissions data from two coal-fired plants. These data were measured emissions rates from actual coal-fired plants, but were of inconsistent quality and comparability. Moreover, the variability in the concentrations of radionuclides in the coal feedstock was not factored into the calculations, and only a fraction of the total number of radionuclides in the decay chains of interest (^{238}U and ^{232}Th) were accounted for in Weston's calculations. Thus, one strength of the Weston report (an analysis based on measured radionuclide emissions) was also a deficiency due to the limited data base used in the assessment.

During the public comment period on the DEIS, the agency received a number of comments as to the adequacy of the radionuclide emissions data and the conclusions based on the study. Moreover, one commenter found a calculation error in the original study which decreased the calculated emissions. The commenter also requested that emissions be uniformly stated in activity (curies per year) rather than mass (grams per second) and that a complete list of radionuclide species be included in the FEIS.

To address these concerns, the DOE independently assessed the expected radionuclide emissions for the proposed facility based on the following parameters: expected concentrations of noncombustible matter (i.e., ash) in coal feedstock, typical concentrations of uranium (U) and thorium (Th) in limestone and coal from the regions likely to supply these feedstocks to the proposed project, enrichment factors reported in the literature, and typical (conservative) particle capture efficiencies for a fabric filter baghouse. The resulting estimate of total activity is included in Table 2.1-1 of the FEIS, and the expected radionuclide species are summarized in Table 4.1-12b of the FEIS. Additionally, the DOE requested that the original radionuclide study be corrected by Weston and the health risk assessment (CAP-88) model be re-run. DOE also conducted a CAP-88 health risk assessment using the radionuclide emissions which DOE estimated. Results from both assessments are tabulated in Table 4.1-22 of the FEIS.

Assumptions and Approach

Radionuclides occur naturally in trace amounts in coal and limestone both of which would be fed into the circulating fluidized bed combustor for the proposed cogeneration facility. The principal decay series are Uranium-238 (^{238}U) and Thorium-232 (^{232}Th), both of which occur in eastern bituminous coals. Radionuclides are assumed to exist in a state of *secular equilibrium* in the unburned coal. Secular equilibrium refers to a state within a radioactive decay series (e.g., ^{238}U or ^{232}Th) in which all members of the series disintegrate equal numbers of atoms per unit time.

When coal is burned, radionuclides present in the coal are released as part of the noncombustible ash or, in the case of radon, as a gaseous emission. Radionuclides become enriched (or depleted) within either the bottom ash or fly ash and within various particle size fractions (e.g., 10 microns) of the ash. Enrichment occurs when a radionuclide is present in a given ash stream or particle size fraction in a greater concentration than in the ash as a whole. Therefore, total radionuclide emissions (mass/time) from the proposed facility would be a function of the radionuclide and ash content of the coal and limestone feedstock, feed rates for coal and limestone, operating load of the facility, enrichment factors for the specific radionuclides, and ash partitioning - including the capture efficiency of the particulate control device (i.e., the baghouse) for various particle size fractions.

Radionuclide and Ash Content of Feedstock[1]

Parameter	Coal	Limestone
^{238}U	1.21 ppm	1.00 ppm
^{232}Th	1.72 ppm	0.77 ppm
Ash content	9.5 %	~100 % (limestone is essentially noncombustible, although any moisture would be evaporated)

[1] Coal data based on information for similar coals as provided by the West Virginia Geological Survey. These data compare favorably with data for the Pittsburgh coal in southwestern PA as contained in the COALQUAL database *(USGS, 1994)*.

Feed Rates

Coal input:	206,580 lbs/hr @ 100 percent capacity
	165,291 lbs/hr @ 75 percent capacity
	123,969 lbs/hr @ 50 percent capacity
Limestone input:	46,000 lbs/hr @ 100 percent capacity
	36,810 lbs/hr @ 75 percent capacity
	27,608 lbs/hr @ 50 percent capacity

Operational Load

Design:	24 hr/day x 365 days/year
Assumed*:	303.4 days/yr @ 100 percent capacity
	20.8 days/yr @ 75 percent capacity
	20.8 days/yr @ 50 percent capacity
	20.8 days/yr @ 0 percent capacity

* Under the terms of the contract with Met-Ed, the proposed facility could be dispatched down to a load of 50 percent. Actual operational load would vary with demand and market, and cannot be predicted.

Enrichment Factors

The enrichment factors (EFs) tabulated below were based on published information making the following assumptions:

- Typical EFs suggested by EPA in its Background Information Document for radionuclide emissions standards (*1984b*) are good estimates of average EFs for pre-1980 coal-fired power plants.
- Typical EFs suggested by EPA for selected elements are valid for all isotopes of that element.
- For elements for which EPA lists no EF, an EF can be assigned based on the EFs given for chemically similar elements based on location within the periodic table.
- To account for the smaller particle-size distributions emitted by modern, more efficient particle control systems, published EFs would need to be upwardly adjusted.
- A reasonable adjustment can be made by considering published variations of enrichment with particle size for specific radionuclides *(Tadmor, 1986)*, and adjusting EFs for other radionuclides relative to these published data.
- Adjusted EFs chosen for radionuclides in the ^{238}U series are applicable to elements in the ^{232}Th series.

- The EF for Thorium will approximate the EF for Actinium; the EF for Bismuth will approximate the EF for Thallium.

Ash Partitioning/ Particulate Capture Efficiency

Ash Partitioning: 75 percent of ash product would be flue ash
25 percent of the ash product would be bottom ash

The above information is based on the manufacturer's operating specifications at 100 percent operating load.

Based on information extracted from Bland, *et al* (1989), these fractions would be further partitioned as follows:

Flue Ash (75 percent): 45.4 percent would be limestone waste
29.6 percent would be coal ash

Bottom Ash (25 percent): 22.2 percent would be limestone waste
2.8 percent would be coal ash

Particulate Capture Efficiency:

design: > 99.9 percent assumed**: 99.8 percent

** The assumed capture efficiency used in this analysis is conservative (i.e., it would likely overestimate particulate emissions). The proposed facility would have a permit limitation of 0.011 lbs/MMBtu, which translates to a capture efficiency of 99.94 percent. The manufacturer of the pollution control equipment (Research-Cottrell, Inc.) has given the industrial participant (YCEP) a performance guarantee that the proposed baghouse will meet or exceed the permit limit for particulate emissions from the proposed facility.

Radionuclide	EF (EPA)	EF (estimated)	Adjustment (percent)	EF expected
Uranium-238 Series				
Uranium-238	2		19	2.38
Thorium-234		1	2	1.02
Protactinium-234		1	2	1.02
Uranium-234		2	19	2.38
Thorium-230	1		2	1.02
Radium-226	1.5		14	1.71
Radon-222		n.a.[a]		n.a.
Polonium-218		5	32	6.60
Lead-214		5	32	6.60
Bismuth-214		5	32	6.60
Polonium-214		5	32	6.60
Lead-210	5		32	6.60
Bismuth-210		5	32	6.60
Polonium-210	5		32	6.60
Thorium-232 Series				
Thorium-232	1		2	1.02
Radium-228	1.5		14	1.71
Actinium-228		1	2	1.02
Thorium-228	1		2	1.02
Radium-224	1.5		14	1.71
Radon-220		n.a.[a]		n.a.
Polonium-216	5		32	6.60
Lead-212	5		32	6.60
Bismuth-212	5		32	6.60
Thallium-208		5	32	6.60

[a]Based on available data, no enrichment factor is assumed for radon, which is discussed separately in this appendix.

Methodology

The specific activity[2] (in curies/gm) for each radionuclide emitted is determined from the half-life for the specific radionuclide using the standard equation for specific activity *(USHEW, 1970)*:

$$SpA\ (curies/gm) = \frac{0.69315}{T_{½}(sec)} \times \frac{6.0225 \times 10^{23}}{Atomic\ mass} \times \frac{1}{3.7 \times 10^{10}} \quad (1)$$

For example, the specific activity for ^{238}U, which has a half-life of 4.51×10^{9} years (1.42×10^{17} seconds) would be 3.33×10^{-7} Ci/g. Using the Uranium content of the coal feedstock (1.21 ppm), the activity from ^{238}U would be:

$$\frac{1.21\ gm\ Uranium}{1 \times 10^{6}\ gm\ coal} \times \frac{3.33 \times 10^{-7}\ curies\ (C)}{gm\ Uranium} \times \frac{10^{12}\ picoCi\ (pCi)}{curies}$$

or 0.40 pCi/g of coal.

Because some radionuclides volatilize at the instant of combustion and then preferentially plate out or adsorb to the finer ash byproduct, it is appropriate to calculate radioactivity emissions using both the ash content of coal and the Enrichment Factors (EFs) estimated above. For ^{238}U, the expected emissions factor would be:

$$\frac{0.40\ pCi}{gm\ coal} \times \frac{1\ gm\ coal}{0.095\ gm\ ash} \times 2.38 = \frac{10.0\ pCi}{gm\ ash}$$

Emissions of ^{238}U from coal can then be calculated as the product of the above emission factor and the mass of ash emitted annually from the proposed facility. Using the coal feed rates assumed above (824,316 tons/yr) and an ash content of 9.5 percent, the total coal ash generated from the proposed facility would be 78,310 tons/yr of which 71,645 tons/yr would be flue ash and 6,664 tons/yr would be bottom ash. Using the capture efficiency stated above (99.8 percent), the coal ash escaping the facility would be:

$$Flue\ ash\ (71{,}645\ tons/yr) \times (1.000 - 0.998) = 143.3\ tons/yr$$

$$143.3\ tons/yr \times 2{,}000\ lbs/ton \times 454\ gm/lb = 130 \times 10^{6}\ gm/yr$$

Radioactivity emissions (in curies/year) from ^{238}U in coal would then be simply the product of the coal ash emission rate (in grams/year) and the emission factor for ^{238}U (in picocuries/gram) multiplied by a conversion factor from picocuries to curies:

[2] A curie is the unit quantity of any radioactive nuclide in which 3.7×10^{10} disintegrations occur per second.

$$130 \times 10^6 \ gm/yr \times 10.0 \ pCi/gm \times 10^{-12} \ Ci/pCi = 0.0013 \ Ci/yr.$$

Radioactivity emissions from ^{238}U occurring in limestone would be similarly calculated, and would be expected to add approximately 0.00017 Ci/yr to the emissions from coal for total expected ^{238}U emissions of 0.00147 Ci/yr.

Because radionuclides are assumed to exist in secular equilibrium within coal and limestone at the time of combustion, activity for each decay product of ^{238}U in the feedstock equals the activity of uranium. Thus, only an appropriate enrichment factor for each specific radionuclide is required to calculate the emission rate (in grams/year):

$$\frac{0.40 \ pCi}{gm \ coal} \times \frac{1 \ gm \ coal}{0.095 \ gm \ ash} \times EF \times 130 \times 10^6 \ gm/yr,$$

or,

$$0.00055 \ Ci/yr \times EF_i,$$

where EF_i is the Enrichment Factor for the radionuclide of interest. For Radium-226 (^{226}Ra), the expected emissions from coal ash would be:

$$0.00055 \ Ci/yr \times 1.71 = 0.00094 \ Ci/yr.$$

Using a similar derivation, the expected emissions from radionuclides present in limestone feedstock would be:

$$0.00007 \ Ci/yr \times EF_i \ .$$

Total expected emissions of radioactivity from the proposed facility would be the summation of activity for all of the individual radionuclides which would be expected to be present in both the ^{238}U and ^{232}Th decay series[3].

Results

DOE has conservatively estimated total emissions rate for radionuclides of **278.91 millicuries per year** (mCi/yr) for the proposed YCEP Cogeneration Facility. The estimated emissions, as independently calculated by DOE by the methods described in this appendix, are tabulated in Table 4.1-12a of the FEIS,

[3] Both the ^{238}U and ^{232}Th series contain parallel or collateral decay series. For example, Polonium-218(^{238}U series) undergoes two decay paths: one results in Lead-214 via the emission of an *alpha* particle, the other produces Astatine-218 via *beta* emission. Both paths result in Bismuth-214 via either *beta* emission (^{214}Pb) or *alpha* emission (^{218}At). Isotopes in the minor collateral paths are not included Table 4.1-12a because they represent a small fraction of the "parent" isotope (^{218}At represents only 0.04 percent of the disintegrations undergone by ^{218}Po). Radionuclides in the ^{235}U series have not been included because ^{235}U represents only a small fraction (0.7%) of all naturally occurring uranium.

and include the estimated activity for each radionuclide expected to be emitted by the proposed facility.

In the corrected radionuclide study *(Weston, 1995)* submitted by the industrial participant, radionuclide emissions from the proposed facility were estimated to be 77.26 mCi/yr. As noted in the background section of this appendix, Roy F. Weston, Inc., based its estimates on measured emissions from two operating coal-fired power plants. DOE's estimates, on the other hand, were calculated using a "classical" approach, and included many radionuclides which were not measured in the studies used by Roy F. Weston, Inc. The inclusion of additional radionuclides would be expected to result in a higher activity as evidenced by the sizable difference in the two estimates.

To assess the health impacts associated with DOE's estimated radionuclide emissions from the proposed facility, DOE conducted a health risk assessment using the CAP-88 assessment model. The results, which are discussed in section 4.1.2.11 of the FEIS and tabulated in Table 4.1-22, indicated that the Selected Individual Total Lifetime Fatal Cancer Risk from radioactive emissions from the proposed facility would be expected to be 2.11×10^{-7} (approximately 2 in 10 million), which is within EPA's "presumptively safe" range.

It is interesting to note that the cancer risk level determined by DOE's CAP-88 modeling is **lower** than that calculated by Roy F. Weston, Inc. (2.36×10^{-6}) even though DOE's total estimated emission of radioactivity is much higher than that of Roy F. Weston, Inc. The reason for this apparent discrepancy lies in the differing emissions of specific radionuclides predicted by the two different approaches.

Activity from radon (^{220}Rn and ^{222}Rn) accounts for more than 80 percent (235.23 mCi/yr) of the total radioactive emissions from the proposed project as estimated by DOE. Because radon was not measured for the coal-fired plants included in the assessment by Roy. F. Weston, Inc., no activity from radon is included in that analysis. Moreover, CAP-88 does not accept radon as an input radionuclide, and health risk assessments produced by CAP-88 do not include radon activity. Therefore, the two cancer risks are non-inclusive of radon, and are comparisons of cancer risks from 77.26 mCi/yr *(Weston, 1995)* and from DOE's estimated radioactive emissions exclusive of radon (43.68 mCi/yr). This would account for the lower cancer risk as determined by DOE.

Radon

As noted above, DOE estimated that the total radon emissions, including both ^{220}Rn and ^{222}Rn, from the proposed facility would be 235.23 mCi/yr, and would account for more than 80 percent of the total radioactivity which would be expected. No enrichment factor was applied to radon emissions because radon, an inert gas, readily disperses in the stack gases and atmosphere, and would not attach to ash particles. Very little quantitative information regarding radon emissions from large-scale coal-fired boilers exists in the literature. Stack sampling data for ^{222}Rn was collected for the Number 2 Unit of the George Neal Power Plant in Sioux City, IA *(Styron, et al, 1979)*. These data indicate little difference in ^{222}Rn concentrations measured at the inlet duct to the electrostatic precipitator and the concentrations measure at the outlet duct, and support the position that radon emissions are not appreciably diminished by controls on particulate emissions.

Some radon would be expected to remain trapped inside noncombustible materials remaining after combustion of coal. Some of this material would exit the boiler as bottom ash, and some would exit the boiler trapped inside flue ash. However, much of the radon trapped in the flue ash would remain with the ash captured in the baghouse. In the absence of firm data on release and escape rates for radon, DOE assumed that 50 percent of radon released during combustion escapes to the atmosphere. The activity for radon included in Table 4.1-12a reflects this assumption.

Radon emitted from the proposed facility would not be expected to pose an unacceptable risk to human health for three primary reasons. First, radon from a number of natural sources - including natural soils and from groundwater - occurs naturally in the atmosphere. Ambient outdoor radon levels range from 0.2 to 0.7 pCi/L *(EPA, 1993c)*. By comparison, average indoor radon levels within the United States are reported to be 1.25 pCi/L *(EPA, 1993c)*, and the median radon concentration measured in homes in Pennsylvania is reported to be 4.89 pCi/L *(Alter, 1987)*. With respect to indoor radon levels, the EPA *(EPA, 1993c)* has identified 4 pCi/L as the "Action Level" at which a homeowner should consider fixing the home.

Second, inhalation is the only known exposure pathway whereby radon represents a known cancer risk *(EPA, 1993c)*. Radon, a gas, does not settle onto plants or soils, and because of its short half-life (3.82 days for ^{222}Rn; 54.5 seconds for ^{220}Rn) radon would not remain in the environment long enough to be taken up through the food chain to pose an ingestion risk. Also, radon does not dissolve into water (from typical atmospheric concentrations) at sufficiently high concentrations to pose a health risk from water intake.

Finally, radon emitted from coal-fired power plants is readily diluted by combustion air so that concentrations in the stack gases would not be expected to be appreciably greater than ambient concentrations. The total radon activity emitted from the proposed facility (235.28 mCi/yr) represents a stack emission rate of 4.5×10^{-4} mCi/minute. The air-flow rate through the combustion chamber for the proposed facility at full load would be 758,700 cubic feet/minute (CFM). At this air flow, the concentration of radon emitted from the proposed facility would be:

$$\frac{4.5 \times 10^{-4}\ mCi/\text{min}}{758{,}700\ ft^3/\text{min}} \times \frac{1}{28.32\ L/ft^3} \times 1 \times 10^9\ pCi/mCi = 0.02\ pCi/L$$

This would be the expected increase in radon concentration at the stack outlet compared to normal radon concentrations in ambient air (0.2 to 0.7 pCi/L). Radon emissions from the proposed facility would be substantially lower than the contribution of radon from natural soils or groundwater *(see Hess, et al, 1985)*. Through the normal atmospheric dilution and dispersion, the actual radon concentration from the proposed facility, as it would affect the community, would be even lower.

Conclusions

To assess the health affects of radionuclides emitted from the proposed facility, DOE independently estimated the levels of radioactivity using a "classical" approach described in this appendix. The total estimated emission would be expected to be 278.91 mCi/yr of which more than 80 percent (235.28

mCi/yr) would be from radon. This estimate is substantially higher than that provided in Weston, 1995, which did not include activity from radon. The risk of fatal cancer from the estimated emissions, excluding radon, would be 2.11×10^{-7}, which is within the EPA's "presumptively safe" range. Although radon represents more than 80 percent of the estimated emissions of radioactivity from the proposed facility, dilution by normal air flow through the CFB combustor would result in radon concentrations at the stack outlet which would be no greater than 10 percent above ambient air concentrations. The radon emitted from the proposed facility would be diluted by normal atmospheric dispersion to the extent that health risks would be no greater than the risks from exposures to normal indoor air.

The results of DOE analysis appear to support the EPA's position that ". . . current levels of radionuclide emissions from coal-fired boilers represent a level of risk that protects the public health with an ample margin of safety." Moreover, DOE's estimates would be expected to be overly conservative because its approach did not assume the permit limit on particulate emissions of 0.011 Lbs/MMBtu, which is guaranteed by the equipment manufacturer. Had DOE included this particulate capture efficiency (99.96 percent) in its assumptions, the estimated emissions of radionuclides would be substantially lower. For all of these reasons, DOE has concluded that radionuclide emissions from the proposed facility would not be expected to pose a measurable health risk.