

**LESSONS  
LEARNED**

U.S. Department of Energy

Quarterly Report

December 2, 1996

For Fourth Quarter FY 1996

**Continuing Improvement:**

Participants at October NCO meeting included (from left to right) Dean Monroe, GC; Reginald Tyler, RF; Drew Grainger, SR; and Roger Twitchell, ID.

**Theme of October  
NEPA Compliance  
Officers Meeting**

Leading members of DOE's NEPA community shared professional experiences and reflected upon job challenges at the DOE NEPA Compliance Officers (NCO) meeting held in Washington, DC on October 29-30. In addition to 29 NCOs, the participants included staff from the Offices of NEPA Policy and Assistance and the Assistant General Counsel for Environment. The meeting featured informal small group discussions, rather than presentations to a large audience.

The meeting examined NCO and Office of Environment, Safety and Health (EH) roles and responsibilities, NEPA contracting reform, and how to get the most from programmatic NEPA documents. An early brainstorming session elicited aspects of the DOE NEPA compliance program that are going well and "topics of concern" where improvement is needed. The former included: the NEPA teamwork process; the recent process of revising the DOE NEPA regulations; and stakeholder involvement. NCOs suggested that we measure "success" in terms of satisfying customers and protecting the environment. Areas identified as needing work included: misconceptions concerning NCO roles and responsibilities (it may be time to "re-energize" the NCO role); "answer shopping" for a favorable interpretation of NEPA requirements; getting managers to view NEPA more as a tool than an obstacle; and fear (in the Field) of Headquarters involvement.

**Inside LESSONS LEARNED**

Welcome again to the Quarterly Report on Lessons Learned in the NEPA process. This report includes:

- Updates on CEQ's Cumulative Effects Handbook, NEPA contracting, environmental justice guidance, a Senate hearing, the NEPA rule, NEPA litigation, and an EA quality study - Pages 3-7
- Guest article on EM's Environmental Information Systems Pilot Project - Page 7
- Fourth quarter FY1996 Lessons Learned Questionnaire results, including EIS and EA cost and time reports - Pages 8-12
- Analysis of EA and EIS cost and time outliers - Pages 13-14
- EA and EIS cost and time trend analysis - Pages 15-16.

*Carol Straption*

Director  
Office of NEPA Policy and Assistance

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## Office of NEPA Policy and Assistance

### NEPA Compliance Officers Meeting (continued)

In keeping with the Secretarial Policy Statement on NEPA and the Strategic Alignment Initiative, the principle of continuing improvement was an underlying theme throughout the NCO meeting. One challenge in this regard is to track and measure progress toward reducing the cost and time of NEPA compliance without reducing quality. As presented at the meeting, ongoing studies of cost and time for DOE NEPA documents are showing moderately favorable trends. (See related report starting on page 15.) Another ongoing effort involves a study of environmental assessment (EA) quality, evaluating how well a sample of 20 EAs complies with requirements and follows applicable guidance. (See related article on page 7.)

In discussing teamwork and Headquarters/Field relationships, a participant advised NCOs to avoid pressure to "keep the group small," thereby leaving out essential people. It was suggested that the typically broad issues raised by Headquarters should be introduced during internal scoping, although a team should recognize that some issues won't arise until the draft document reaches Headquarters management.

In a guest appearance, Ray Clark, Associate Director for NEPA Oversight at the President's Council on Environmental Quality (CEQ), led a discussion of CEQ's draft Cumulative Effects Handbook, issued for interagency review in September. Some participants said they found CEQ's recommended approaches to be data-intensive, involving more analysis (and therefore more cost) than current approaches. Another remarked that the draft Handbook—which is oriented primarily towards ecological analysis—could be modified to "look more like DOE" by addressing more explicitly such matters as human health effects, nuclear issues, and waste transportation impacts. Mr. Clark agreed with a participant's speculation that the Handbook, although guidance, might have the effect of setting new requirements. (See related article on page 3.)

EH staff shared information and updates on other DOE NEPA matters, emphasizing guidance on addressing environmental justice in the NEPA process (see related article on page 4) and guidance for NEPA Document Managers, both of which were being readied for review. The Office of General Counsel (GC) provided updates on DOE NEPA litigation (involving the Dual Axis Radiographic Hydrodynamic Test Facility EIS and the Programmatic EIS on Foreign Research Reactor Spent Fuel). GC staff also advised the group that the




*Patty Phillips, NEPA Compliance Officer, Oak Ridge Operations Office, shares her experiences in enhancing DOE NEPA compliance activities.*

requirements of Executive Order 13007 on Indian Sacred Sites (May 24, 1996), which include avoiding adverse impacts to Indian sacred sites, should be considered in the NEPA process.

Participants shared insights on ways to enhance DOE NEPA compliance activities, emphasizing the importance of involving decision makers early and often throughout the process. NCOs also recommended that EIS teams include members with incentive to expedite the process. One NCO noted that bringing stakeholders into the scoping process practically "builds the EIS." Participants also referred to a number of Field Office guidance documents and other initiatives, such as guides for project managers and NEPA Document Managers, that could be announced or made available through the DOE NEPA Web.

A panel of EH, Defense Programs, and Environmental Management (EM) participants presented updated information on preparing pollution prevention analyses in NEPA documents, including a display of reference materials. Martha Crosland, EM NCO, announced that the Assistant Secretary for Environmental Management recently issued pollution prevention guidance that builds on Environmental Protection Agency checklists and incorporates NEPA process requirements.

In closing, Carol Borgstrom praised NCOs as the "heart and soul" of the Department's NEPA compliance program and the agency's "conscience." She said that NCOs are also the "brains" behind effective NEPA compliance, and a valuable resource for the Department. 

## DOE Comments on Council on Environmental Quality's Cumulative Effects Handbook

The Council on Environmental Quality (CEQ) distributed its long-awaited draft Handbook, "Considering Cumulative Effects Under the National Environmental Policy Act," for interagency review on September 26, 1996. The draft Handbook presents the results of research and consultations with Federal agencies and a peer group. It contains sections on general principles, scoping, the affected environment, determining environmental consequences, and methods, techniques, and tools. CEQ stated that the Handbook would not be formal guidance and the recommendations are not intended to be legally binding.

Ray Clark, CEQ's Associate Director for NEPA Oversight, led a lively discussion of the Handbook at the NEPA Compliance Officers meeting in Washington, DC, October 29, 1996 (see article on pages 1-2).

The Office of NEPA Policy and Assistance distributed the Handbook to NEPA Compliance Officers for review and has prepared comments that will shortly be provided to CEQ.

### The DOE comments:

- 1) Urge CEQ to explicitly apply the sliding scale concept, in which the level of analysis is proportional to the significance of the impacts.
- 2) Point out the difficulty of performing some of the recommended analyses.
- 3) Express concern that the Handbook may have the unintended effect of setting new requirements.
- 4) Offer help in addressing issues familiar to DOE, such as human health impacts from transporting radioactive materials, that are not discussed in the draft Handbook.

When completed, the Handbook should help NEPA practitioners to better understand the complex issue of cumulative effects and conduct useful cumulative effects analyses. LL

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## DOE-wide NEPA Procurement on Target

The Albuquerque Operations Office will solicit and administer multiple task order contracts for NEPA document preparation on behalf of all DOE Offices with NEPA requirements. DOE believes task order contracts for NEPA support services can reduce NEPA document preparation time and cost while maintaining or improving quality (NEPA Contracting Reform Guidance: Phase II, December 1995). The Albuquerque Operations Office plans to issue a draft Request for Proposals in mid-December for DOE and potential bidder comments; the final Request for Proposals is scheduled for early 1997, with contract awards by September 1997. Contracting questions can be directed to Dawn Knepper, Contracting Officer, Albuquerque Operations Office, on 505-845-6215.

Reform initiatives began with the Secretary's Policy Statement on NEPA in June 1994. Phase III began with the issuance of NEPA Contracting Reform Guidance: Phase II, December 1995, and extends through December 1996.)

The Report will highlight Phase III activities, which include acquisition planning for the multiple award, task order contracts for NEPA support discussed above; preparation of guidance for NEPA Document Managers; and conduct and assessment of a pilot program for NEPA contractor evaluation. The final Guidance will improve the Phase II Guidance based on these Phase III activities and on other experiences of the Department's NEPA community this past year.

Other DOE NEPA Contracting Reform initiatives are in the final phase. In December 1996 the Office of Environment, Safety and Health, in partnership with the Offices of Human Resources and Administration and General Counsel, and in consultation with Program and Field Office staff, will issue a Report on NEPA Contracting Reform activities and final NEPA Contracting Reform Guidance. (The Department's NEPA Contracting


The Office of NEPA Policy and Assistance plans to transmit a draft report and guidance to NEPA Compliance Officers early in December and coordinate any comments by teleconference soon thereafter. Questions on this report and guidance can be directed to Yardena Mansoor, Office of NEPA Policy and Assistance, on 202-586-9326. LL

## Environmental Justice Guidance -- status report

A preliminary draft of the Department of Energy's "Guidance on Incorporating Environmental Justice Principles into the National Environmental Policy Act Process" was discussed at the October NEPA Compliance Officers meeting in Washington, DC and is being prepared for distribution throughout DOE. The NCO's comments helped clarify the guidance and avoid unnecessary analysis.

The draft guidance addresses Executive Order 12898 and the President's accompanying memorandum of February 1994 on incorporation of environmental justice principles into the NEPA process. The guidance presents an efficient method for analyzing environmental justice impacts using a phased approach and the "sliding scale" concept (where the level of analysis is commensurate with the significance of the impacts).

The draft guidance covers environmental justice at each step of the NEPA process: internal scoping, notice of intent, public scoping, and document preparation. Document preparation is further divided into subtopics: alternatives, description of the affected environment, and environmental consequences/impacts. Appendices include techniques for enhancing public participation opportunities for minority and low income communities and an overview of DOE's Environmental Justice Strategy. The Council on Environmental Quality's Draft Guidance for Addressing Environmental Justice under the National Environmental Policy Act (including definitions) and the Executive Order are appended for the user's convenience.

A copy of the draft guidance can be obtained from Linda Thurston (telephone 202-586-1509 or fax 202-586-3915). 

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### Environmental Justice Traveling Display

The Office of NEPA Policy and Assistance has a portable Environmental Justice display available to lend to DOE program and field offices just for the asking. A duplicate of the display used at the October 1996 NEPA Compliance Officers meeting, this portable Environmental Justice package gives examples of background materials and history, guidance, references and other available resources. For more information call Linda Thurston at 202-586-1509 or fax your request to 202-586-3915.



*Linda Thurston and John Pulliam of the Office of NEPA Policy and Assistance at the October NCO Meeting, demonstrating their display package for presenting important environmental justice information.*

# Senate Subcommittee Focuses on NEPA

By: Joanne Arenwald Geroe, Office of NEPA Policy and Assistance

The NEPA decision making process in Federal land management agencies, including the role of the Council on Environmental Quality (CEQ), was the focus of a September 26, 1996, hearing before the Senate Subcommittee on Oversight and Investigations (of the Committee on Energy and Natural Resources). Witnesses were Kathleen McGinty, Chair of CEQ, Jack Ward Thomas, Chief of the United States Forest Service, and Nancy K. Hayes, Chief of Staff and Counselor for the Bureau of Land Management. Attending Subcommittee members were Senator Craig Thomas (Wyoming), Subcommittee Chairman, and Senators Burns (Montana), Domenici (New Mexico), Craig (Idaho), and Akaka (Hawaii). Also present for portions of the hearing were Senators Bradley (New Jersey), Bennett (Utah), and Murkowski (Alaska).

In opening remarks, Senator Thomas emphasized that the purpose of the hearing was to examine the NEPA decision making process and make the statute work better. He stated that "this hearing is not about how to weaken or gut NEPA, as opponents to change so frequently and mistakenly contend." Senator Thomas also indicated that this hearing was an opportunity for the testifying agencies to give a status report on their initiatives to review and streamline their decision making process and reduce costs, and for CEQ to follow up on the status of its initiatives for improving NEPA's effectiveness.

Senator Thomas further stated, "Administrative reforms can only go so far to address the issues associated with NEPA

implementation by the Federal agencies. Administrative reforms can attempt to make the process work better, but they cannot fully address the procedural requirements and mandates imposed by the courts. Only Congress can do that. It may be time, after nearly 30 years [since NEPA was enacted], for Congress to look more closely at how courts have interpreted the requirements of NEPA and for Congress to make a decision about whether or not those requirements are consistent with Congressional intent."

Ms. McGinty reviewed the findings of the NEPA effectiveness study CEQ has been working on for two years.

### ***"NEPA reinvention has become a pillar in DOE's overall reinvention strategy."***


*Kathleen McGinty  
Chair, Council on Environmental Quality  
September 26, 1996*

She stated that "NEPA works," explaining that "agencies must now take a 'hard look' at the environmental consequences of proposed actions, ... must tell the public what they are proposing to do, invite public views on their proposals, and respond to those views." She also noted that two trends are occurring in agency NEPA practice. First, the number of lawsuits against agencies is declining. Second, agencies are preparing many more environmental assessments than environmental impact statements. Ms. McGinty indicated that the draft NEPA effectiveness study would be distributed for interagency review in the near future. [Editor's Note: The interagency review has since been conducted.]

McGinty acknowledged shortcomings in agencies' implementation of NEPA, including that: the NEPA process sometimes is too lengthy and costs too much; some documents are too long and too technical for most people to use; agency officials are inadequately trained, particularly senior officials; and there have been instances of delayed public and interagency involvement. She also noted that often, after a project is approved, agencies fail to collect long-term data on the actual environmental impacts of the project.

Ms. McGinty cited DOE as an agency that has improved NEPA implementation. She stated that

"NEPA reinvention has become a pillar in DOE's overall reinvention strategy." Ms. McGinty noted that DOE has recently amended its NEPA regulations to exclude additional actions that clearly have no significant environmental impact and has made other streamlining changes for significant cost savings.

A lively question and answer period followed prepared testimony by Jack Ward Thomas (U.S. Forest Service) and Nancy K. Hayes (Bureau of Land Management). Much of this centered around President Clinton's controversial use of the Antiquities Act to establish a national monument in southern Utah. 

## Updates from the Office of NEPA Policy and Assistance

### Final Amendments to DOE NEPA Regulations (10 CFR Part 1021) for Power Marketing Activities to Be Published Soon


DOE has completed the required consultation with the Council on Environmental Quality regarding a final rule amending limited portions of the DOE NEPA regulations, and the rule is scheduled to be published in the Federal Register early in December 1996.

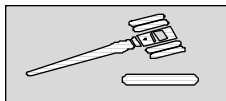
The power marketing activities addressed in this rulemaking were initially included in a broader scope NEPA rulemaking that was completed in July 1996. At Congressman John Doolittle's

(California) request, however, final action regarding power marketing activities was deferred while DOE polled Federal and State agencies that regulate similar activities.

The final power marketing amendments include modifications to seven categorical exclusions that change the basis for application of the class of action, increase the coverage, or expand the length of the electric powerline that may be constructed, reconstructed, or relocated. Additional clarifying examples were

added to one categorical exclusion. Conforming changes were made to four classes of actions. Although these classes of actions are used primarily by the power marketing administrations, they are available for use by any DOE program.

The amendments will take effect 30 days after publication. For a copy of the power marketing amendments, call Bob Strickler at 202-586-2410 (fax 202-586-3915). DOE's NEPA regulations also are available on the DOE Web Site (<http://tis-nt.eh.doe.gov/nepa>). 



#### Litigation Updates

### Recent Rulings on Alternatives

By: Stephen Simpson, Office of NEPA Policy and Assistance

The status of NEPA litigation involving the Department of Energy has not changed significantly since the last Lessons Learned Quarterly Report. Two other recent cases concerning reasonable alternatives, however, may be of interest.

#### Unreasonable Alternatives


The Federal Aviation Administration's rejection of two alternatives to the proposed expansion of an existing runway was not arbitrary and capricious. The construction of an alternative parallel runway was infeasible, because of existing urban land use, rapidly falling terrain, and the need to remove two major Air Force weapons laboratories and storage facilities. The construction of a new airport was infeasible because planners would have to build new facilities and a new infrastructure, extend utilities and freeways, possibly relocate the

adjoining Air Force facilities to previously undeveloped land, and address numerous environmental complications. The court ruled that an agency need not analyze the environmental impacts of alternatives in good faith rejected as too remote, speculative, impractical or ineffective. Airport Neighbors Alliance v. United States, 90 F.3d 426 (10th Cir. 1996).

#### Need for Reasonable Range of Alternatives

The Federal Highway Administration's (FHWA's) EIS for a proposed highway was defective because FHWA narrowed the statement of purpose and need for agency action from the Draft EIS to the Final EIS without rescoping the alternatives. The change was to add a need for a specified Level of Service (a measure of road capacity), which only one of the alternatives could meet. The court held that an agency

does not abuse its discretion merely by changing the statement of purpose and need, as long as a range of alternatives remains open to consideration even under the new statement. But if a range of alternatives is developed in conjunction with one statement of purpose and need, and the statement of purpose and need is subsequently changed to eliminate all but one of the initial alternatives, the agency has abused its discretion because there has not been an adequate consideration of a reasonable range of alternatives. City of Carmel-by-the-Sea v. United States Department of Transportation, 95 F.3d 892 (9th Cir. 1996).

Copies of complete opinions are available from Stephen Simpson, Office of NEPA Policy and Assistance, at 202-586-0125 (e-mail: [stephen.simpson@eh.doe.gov](mailto:stephen.simpson@eh.doe.gov)). 


## **Updates from the Office of NEPA Policy and Assistance**

# **Environmental Assessment Quality Study**

The Office of NEPA Policy and Assistance is studying recent DOE EAs to foster continuing improvement of the NEPA process by providing feedback (not oversight) on performance to DOE's NEPA community. A further purpose is to provide a quality benchmark for future such studies, in light of DOE's ongoing goal to reduce the cost and time to prepare NEPA documents while maintaining quality.

To provide a snapshot of DOE performance, Office of NEPA Policy and Assistance staff are examining the 20 most recently completed EAs (as of August 1996) against the EA Checklist of required and recommended elements, while judging application of the "sliding scale" concept and keeping an eye open for any particularly commendable or deficient features. Findings will be

reported as general trends and lessons learned, and may influence guidance development priorities. When appropriate, cognizant NEPA Compliance Officers will be informed of findings regarding specific EAs.

NEPA Compliance Officers expressed interest in the EA Quality Study during their October 1996 meeting, and suggested expanding the scope of the study to include a review of: 1) the overall EA process (EA determinations and notifications, public participation, and DOE's responses to external comments on EAs); and 2) findings of no significant impact. The Office of NEPA Policy and Assistance will consider such further studies after first taking the steps described above, and welcomes comments and suggestions on all aspects of the study. 

## **Guest Article**

# **DOE'S Environmental Management Office Starts Environmental Information Systems Pilot Project**


By: Steve Taub, Office of Strategic Planning and Analysis, Environmental Management

The DOE Office of Environmental Management (EM) recently began the Environmental Information Systems Pilot Project to improve environmental information management, and thereby support, strengthen, and streamline the NEPA process. EM set two goals for the Project: (1) improve and integrate site environmental information management, and (2) improve environmental information availability within and outside the Department. EM Assistant Secretary Alvin L. Alm has encouraged EM field operations to propose using geographic information systems to enhance environmental information management. EM headquarters will cooperate with selected field offices in performing and evaluating each pilot project's applicability to other DOE sites.

The pilot program was inspired by work performed in preparing the draft Hanford Remedial Action Environmental Impact Statement and Comprehensive Land Use Plan. Hanford consolidated existing information on many aspects of the Site's geography, hydrology, soils, habitats, vegetation, facilities, and contamination into a geographic information system. The Richland Operations Office uses the new system to support a wide range of environmental management

activities at the Hanford Site. Moreover, local, state, and tribal governments and regulators use the system to enhance their understanding of the Site, and to independently formulate and evaluate future land use scenarios for Hanford.

EM plans to complete cleanup at most sites within 10 years, although treatment of a few remaining waste streams would continue at a small number of sites. "Complete cleanup" means that land, facilities, and materials are adequately safe to be available for alternative use, based on future land use policy decisions, with a minimum cost for long term surveillance and monitoring. Because many completed sites are likely to require long term stewardship, reliable and easily accessible information will be needed for decades, or even centuries, into the future. The Environmental Information Systems Pilot Project is a step towards meeting these long term needs.

EM is currently evaluating several pilot project proposals. For additional information, contact Steven Taub, Office of Strategic Planning and Analysis (EM-24), at 202-586-7634. 

# Fourth Quarter FY 1996 Questionnaire Results

## What Worked and Didn't Work in the NEPA Process

To foster continuing improvement of the Department's NEPA Compliance Program, DOE Order 451.1 requires the Office of Environment, Safety and Health to solicit comments on lessons learned in the process of completing NEPA documents and to distribute quarterly reports. This Quarterly Report covers documents completed between July 1 and September 30, 1996. Comments and lessons learned on the following topics were submitted by questionnaire respondents.

**Editor's Note:** Some of the material presented here reflects the personal views of individual questionnaire respondents, which (appropriately) may be inconsistent. Unless indicated otherwise, views reported herein should not be interpreted as recommendations from the Office of Environment, Safety and Health.

### SCOPING

- A respondent reported success in involving agencies and tribes in the process from the beginning, explaining that NEPA compliance is a Federal requirement and that DOE would adhere to its principles and intent.
- Combining three separate facilities' activities in one EA reportedly was cost effective and helped focus the project.

### DATA COLLECTION/ANALYSIS

- The National Scenic Area Geographical Information System (GIS) database provided almost all the data that needed to be collected, which was an important factor in reducing preparation costs for an EA.

### IMPACT ANALYSIS/METHODOLOGY

- A respondent reported successful use of a team approach in a case for which the comparison of impacts was highly technical and complex. The team, which included outside technical experts, the Indian tribes, and DOE staff, reached consensus on how to compare the impacts of the various alternatives to the No Action alternative. The team process was also reported as very useful in identifying appropriate mitigation measures (e.g., habitat improvements, and monitoring) and helped keep the "big picture" in mind.
- GIS maps were used in an EA to display and compare alternative vegetation management practices that would meet project requirements and avoid adverse impacts to resources in the vicinity of electrical power lines.

### SCHEDULE

#### **Timely Completion of Documents was Facilitated by:**

- Use of an interagency EA document preparation team, including a representative of the U.S. Forest Service.
- Use of a Forest Service GIS database.
- A team approach that allowed for multiple sections to be worked on simultaneously, and also ensured coverage for those who took vacations.

#### **Procedures for Keeping the Document on Schedule:**

- Effective use of a writer/editor.
- Holding NEPA meetings with open communication, and keeping the Indian tribe constantly informed as to every action taking place and what to expect. Open, direct, and consistent communication is the key.
- Working up front with county officials and public interest groups to create a better understanding of project goals and impacts, which facilitated and improved the review process.

#### **Timely Completion of Documents was Inhibited by:**

- Developing the EIS with the participation of the State Department of Fish and Wildlife and the Confederated Tribes and getting these two entities to recognize NEPA requirements. The two entities changed the proposed action twice, which resulted in significant schedule changes.

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# Fourth Quarter FY 1996 Questionnaire Results

## SCHEDULE (continued)

- Difficulty in contacting DOE line project managers. Comments on the EA from the DOE line project managers were sometimes not timely.

### Factors that Facilitated Teamwork:

- Hiring a writer/editor to integrate the products of several different authors.
- A DOE NEPA group that compiled comment responses.

### Factors that Inhibited Teamwork:

- A NEPA Document Manager who lacked adequate NEPA training and did not understand the NEPA process.
- The line organization, early on, appeared to be schedule driven and uninterested in NEPA suggestions or concerns.

### Factors that Facilitated Teamwork with Contractors:

- A detailed contract work statement that helped to define project objectives and method.
- Allowing contractor technical support staff to participate in the EA Review Panel that resolved specific issues.

## PUBLIC PARTICIPATION SUCCESS

### Successful Aspects of the Public Participation Process:

- Informal, open-house types of meetings, and having the public and agencies work cooperatively towards a common goal.
- Holding separate meetings with the Citizen Advisory Group (CAG) to identify objectives, gather issue related information, and clarify CAG questions, which made the CAG feel like they were part of the process and solution.

### Unsuccessful Aspects of the Public Participation Process:

- Inability to obtain Indian tribe participation in the process.

- An additional public meeting was held based on the recommendation of the Citizen Advisory Group and County Commissioners, yet only one new citizen attended.

### Public Reactions to the NEPA Process:

- The process worked quite well. Mailing lists, public meetings, and exchanges with the County officials resulted in a successful program.
- Some members of the public wanted to defer the proposed action until new technology would be available that would further reduce the risk.

## USEFULNESS

### Agency Planning and Decision Making

- The NEPA process helped to develop a clear definition of the project. We addressed issues in the context of the NEPA process.
- The NEPA process provided guidance to the decision makers.
- The NEPA process and project development were integrated. Environmental information was used to define vegetation management practices to avoid impacts, which were incorporated directly in a vegetation control contract. This ensured that environmental information was correctly passed on to those who would carry out the project, and avoided one of the most serious flaws in most NEPA documents — ineffective communication of environmental mitigation to implementors.
- The NEPA analysis helped to solidify plans for the proposed activities that are part of the proposed action; otherwise, decisions were made 2 to 3 years ago. The NEPA analysis should have been done 3 to 4 years ago. LL

# Fourth Quarter FY 1996 Questionnaire Results

## Effectiveness of the NEPA Process

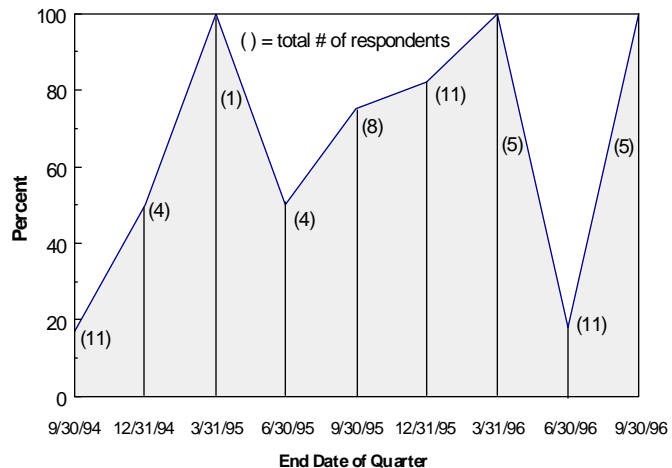
The adjacent charts illustrate how respondents rated the effectiveness of the NEPA process. For the purposes of these charts, “effective” means the NEPA process was rated 3, 4 or 5 on a scale from zero to five, with zero meaning “not effective at all” and five “highly effective.”

For this quarter, 8 of the 13 respondents for EAs and all 5 of the respondents for EISs rated the NEPA process as “effective.” One EA respondent commented that many of the decisions about the project were influenced by the NEPA process. It was important to make sure that the proposed hatchery would not adversely affect the Wildlife Refuge where it was built.

Another respondent stated: “I think the NEPA folks did a good thorough job, and the project will now undergo construction with a good conscience that the environment had been considered in all decisions.”

Two respondents rated the effectiveness of the NEPA process as low because the decisions to implement the action partially were foregone conclusions, and the NEPA process did not enhance the ultimate decision. L L

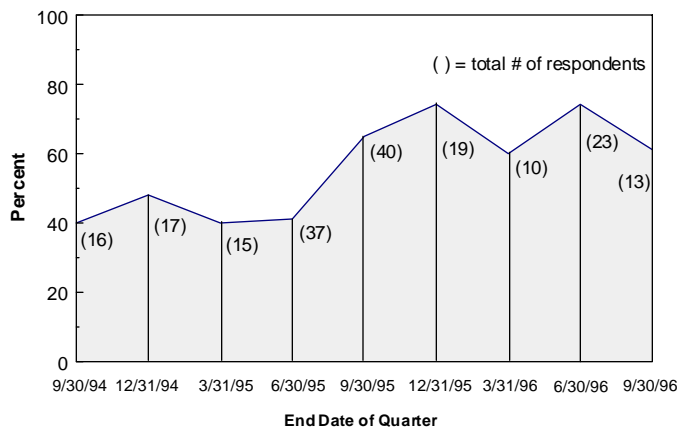
**PERCENT OF RESPONDENTS RATING THE NEPA PROCESS AS EFFECTIVE, FOR EISs\***



\*Effective = the NEPA process received a rating of 3 or higher on a scale of 0 to 5.

Figure 1

**PERCENT OF RESPONDENTS RATING THE NEPA PROCESS AS EFFECTIVE, FOR EAs\***



\*Effective = the NEPA process received a rating of 3 or higher on a scale of 0 to 5.

Figure 2

# Fourth Quarter FY 1996 Questionnaire Results

## EIS Cost and Completion Times Data

### Completion Time Facts

- Three EISs were completed during the fourth quarter of FY1996, in 15, 26, and 31 months.
- One EIS reported scheduling information and it was completed on schedule.
- Cumulatively over the last year, the median completion time for 16 EISs was 25 months; the average completion time was 29 months.

### Cost Facts

- Total NEPA process costs, reported for two EISs completed during the fourth quarter, were \$25,000 and \$14.5 million. The corresponding contractor costs were \$12,000 and \$14.4 million.
- Budget data were reported for one EIS, for which the NEPA process cost exceeded the original budget by 95%.
- For EIS #1 and #3 respectively, the NEPA process costs represented 0.1% and 0.05% of the total project costs.
- Cumulatively, over the last year, the median contractor cost for the preparation of 11 EISs for which cost data were reported was \$3.7 million; the average cost was \$5.8 million.

### EISs

#### Bonneville Power Administration

1 = Hood River Fisheries Restoration Project, Hood County, Oregon, DOE/EIS-0241, EPA Rating: LO (\$13,000 Federal cost, \$11,600 contractor cost; 15 months)

2 = Northwest Regional Power Facility Project, DOE/EIS-0214, EPA Rating: EC-2 (All costs paid by applicant, costs not reported; 26 months)

#### Richland Operations Office/ Environmental Management

3 = Tank Waste Remediation System (TWRS), Richland, Washington, DOE/EIS-0189, No EPA rating (\$100,000 Federal cost, \$14.4 million contractor cost; 31 months)

### ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

#### Adequacy of the EIS

Category 1 — Adequate  
Category 2 — Insufficient Information  
Category 3 — Inadequate

#### Environmental Impact of the Action

LO — Lack of Objections  
EC — Environmental Concerns  
EO — Environmental Objections  
EU — Environmentally Unsatisfactory

# Fourth Quarter FY 1996 Questionnaire Results

## EA Cost and Completion Times Data

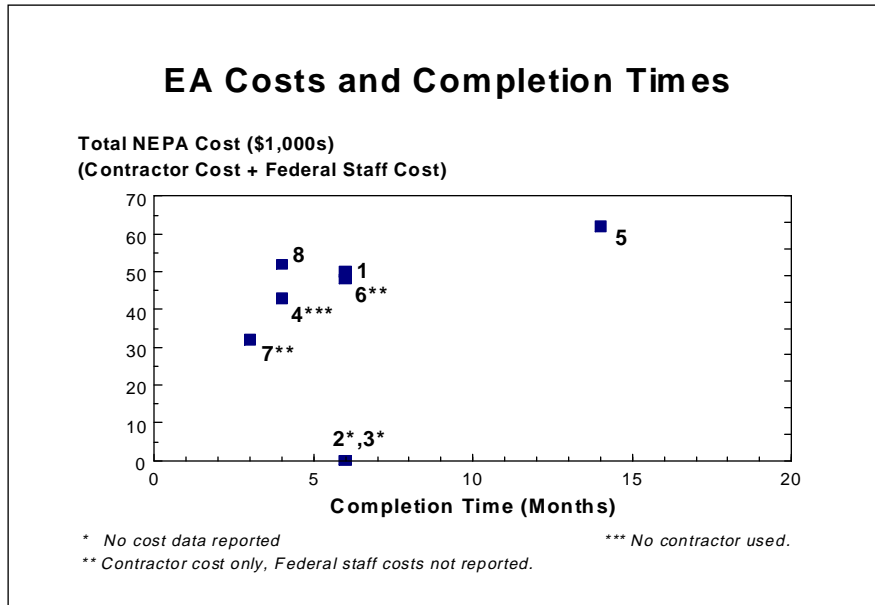


Figure 3

### Completion Time Facts

- The median completion time for the 8 EAs completed during the fourth quarter of FY1996 was 6 months (range: 3 to 14 months).
- Five of the eight EAs for which scheduling information was reported were completed on schedule.
- The NEPA process was initiated early enough for 6 EAs to avoid being on a critical path.
- Cumulatively for the last year, the median completion time for 47 EAs was 9 months; the average completion time was 14 months.

### Cost Facts

- NEPA process cost data were reported for 6 EAs; the median cost was \$49,000.
- Budget data were reported for 3 EAs; 1 was completed within budget, and 2 were not.
- Total project cost was reported for 1 EA, for which the NEPA process cost represented 1%.
- Cumulatively for the last year, the median contractor cost for the preparation of 28 EAs was \$54,000; the average cost was \$79,000.

### EAs

#### Albuquerque Operations Office/ Los Alamos Area Office/ Environmental Management

1 = Effluent Reduction EA, Los Alamos, New Mexico, DOE/EA-1156 (\$10,000 Federal cost, \$40,000 contractor cost; 6 months)

#### Bonneville Power Administration

2 = Columbia River Gorge Vegetation Management, Washington, DOE/EA-1162 (Costs unreported; 6 months)

3 = Kalispel Tribe Resident Fish Project, Pend Orielle, Washington, DOE/EA-1154 (Costs unreported; 6 months)

4 = Northeast Oregon Wildlife Mitigation Project, DOE/EA-1160 (\$43,000 Federal cost, contractor not used; 4 months)

5 = Washington Wildlife Mitigation Projects, DOE/EA-1096 (\$2,500 Federal cost; \$60,000 contractor cost; 14 months)

#### Idaho Operations Office/ Environmental Management

6 = Closure of the Waste Calcining Facility (CPP-633), DOE/EA-1149 (Federal cost unreported; \$48,000 contractor cost; 6 months)

#### Richland Operations Office/ Environmental Management

7 = Salvage/Demolition of 200 West Area, 300 Area Steam Plants, Hanford Site, Richland, Washington, DOE/EA-1177 (Federal cost unreported, \$32,500 contractor cost; 3 months)

#### Savannah River Operations Office/Environmental Management

8 = Closure of the High-Level Waste Tanks in the F&H Areas at SRS, Aiken, Georgia, DOE/EA-1164 (\$6,000 Federal cost; \$46,000 contractor cost; 4 months)

# Analysis of EA and EIS Cost and Time Outliers

In an effort to identify ways to reduce the cost and time to prepare NEPA documents, the Office of NEPA Policy and Assistance examined the preparation process for EAs and EISs that had unusually high and low costs and completion times. Studying these “outliers” could reveal how management practices and other factors favorably and detrimentally affect document cost and completion time.

## Approach

In conducting this analysis, 133 EAs and 27 EISs completed between 1/1/95 and 6/30/96 were sorted by their respective costs and preparation times, and the top and bottom 20 percent of the EISs and 10 percent of the EAs were regarded as “outliers.” Lessons learned questionnaires submitted for the outliers were reviewed, and cognizant NEPA Document Managers and NEPA Compliance Officers were interviewed regarding several EAs. Note that cost data were available only for 86 EAs and 23 EISs.

## Results

Common factors associated with the outliers are summarized below.

### 1. Short Completion Times

The 5 EISs completed in the shortest amount of time (less than 11 months) all had:

- aggressive preparation and review schedules
- preparation teams dedicated to only one EIS
- high-level DOE management support

The 13 EAs completed in the shortest amount of time (3 months or less) also all had aggressive schedules. Additional common factors reported for the EAs include:

- excellent teamwork
- little to no public interest, making document revisions based on public comments unnecessary

### 2. Long Completion Times

Four of the 5 EISs with long completion times (more than 61 months) were Power Marketing Administration (PMA) documents; the fifth involved a non-PMA electrical transmission line project.

(These EISs were also among the lowest cost EISs discussed below.) In one case, litigation associated with a proposed marketing plan was cited as the reason for a lengthy delay. For the others, common factors included that the proposals involved:

- wide areas of potential impact
- complex scopes
- multiple actions or decisions
- changing policy
- multiple cooperating agencies

Although no common thread was apparent for 10 EAs with long completion times (more than 40 months), the following factors applied in more than one case:

- staffing problems (insufficient numbers or changes in)
- lack of EA ownership (Note: All 10 EAs were started before the requirement to assign a NEPA Document Manager)
- multiple review cycles
- “EAs that look like EISs”

One NEPA Compliance Officer reported that long EA preparation times may result because a substantial period of time elapses after the EA determination before the EA preparation work begins “in earnest.” (Note: EA preparation time starts with the EA determination and ends upon issuance of a determination based on a completed EA.)

continued next page

# Analysis of EA and EIS Cost and Time Outliers

(continued)

## 3. Lowest Cost

Four of the 5 EISs with lowest costs (less than \$612,000; average cost \$287,000) were prepared by PMAs; no common underlying factor was apparent. One PMA EIS document was prepared “in-house,” and no contractor costs were incurred. Factors cited for low cost for the non-PMA document include:

- availability of existing data and accident analysis
- efficient multi-document scoping meetings
- positive public reactions (few responses to comments or revisions to the draft EIS were required)

Factors common to several of the 8 EAs costing the least (less than \$15,000) include:

- in-house preparation
- preparation by a management and operations contractor for a certain major weapons complex site. [As noted below, however, a NEPA Compliance Officer for a different weapons complex site has reached the opposite conclusion.]


## 4. Highest Cost

The 4 EISs costing the most (more than \$7.5 million) were major programmatic documents, and all involved: a high-level of public interest and a heightened level of technical controversy; broadly-scoped proposals with multiple alternatives; multiple facilities in the DOE weapons complex; extensive data gathering and analytical requirements; and extensive public involvement including multiple nationwide meetings. They were all large documents. In several cases, document managers cited large, cumbersome comment response documents as a contributor to high costs.

No common thread was apparent for the 8 most costly EAs (more than \$420,000). More than one-half also had relatively long completion times (more than 26 months), but only one was among the

long completion time outlier group. In two cases, the need to respond to public comments and prepare comment response documents was cited as a cost inflator. Finally, as noted above, preparation by a management and operations contractor reportedly contributes to high EA costs at a major DOE weapons complex site.

## Summary

A wide range of factors influence the cost and time to prepare NEPA documents, and appear to reflect the wide range of DOE proposals. Heightened technical controversy is frequently involved with proposals at weapons complex sites and is clearly associated with the highest cost documents. For such proposals, management attention to conducting an effective public participation process while responding efficiently to public comments would help to reduce preparation costs. Common factors associated with document preparation times include the degree of dedication of the preparation team and the commitment of higher-level management to the NEPA process. 



**REMINDER:** Lessons Learned Questionnaires for all NEPA documents completed during the first quarter of FY 97 (October 1, 1996 to December 31, 1996) should be submitted as soon as possible after document completion, but no later than February 1, 1997. (Fax: 202-586-7031 or Internet: joanne.geroe@eh.doe.gov). The Lessons Learned Questionnaire is now available interactively on the DOE NEPA Web [<http://tis-nt.eh.doe.gov/nepa>] on the Internet. Look for it under NEPA Process Information.

# EA and EIS Cost and Time Trend Analysis

The Office of NEPA Policy and Assistance reported certain data and conclusions regarding EA and EIS cost and completion time trends at the October NEPA Compliance Officers meeting. This information is now presented here, updated with the latest quarter's results.

EA cost (Figure 4) and completion time (Figure 5) trendlines continue moderately downward.

Cost distributions (not shown here) for EAs prepared in times greater or less than the median completion time were not significantly different. Similarly, completion time distributions for EAs prepared for more versus less than the median cost were not significantly different. These results indicate that, for DOE as a whole, EA cost and completion times are not strongly correlated, which seems counterintuitive. This issue will be revisited as new data increase the statistical power of the sample.

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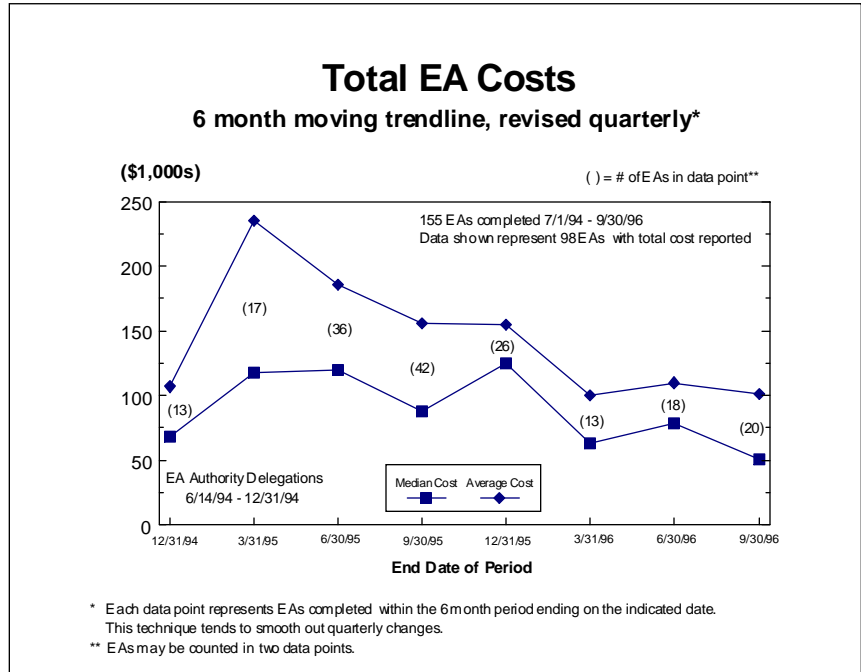


Figure 4

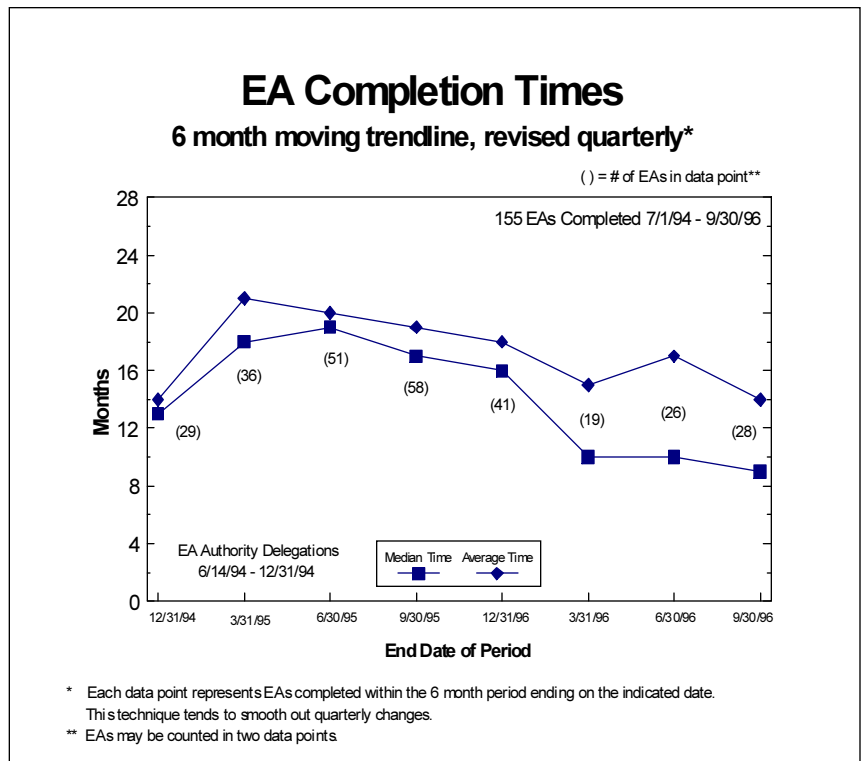


Figure 5

# EA and EIS Cost and Time Trend Analysis

Approximately half of DOE's EAs are prepared (by Field Offices) on behalf of proposed actions under the Office of Environmental Management. Figure 6 illustrates the median cost distributions by Field Office. Most Offices have prepared too few EAs to permit meaningful comparisons with the others.

For the Albuquerque and Savannah River Offices, however, the characteristic costs for preparing Environmental Management EAs may well be significantly different. This result does not necessarily mean that one Office is preparing adequate EAs more efficiently than the other, but does suggest that the Offices conduct a benchmarking process to identify the underlying reasons for these apparent cost differences.

Statistical limitations on studying trends for EISs are severe. With this in mind, EIS completion times nevertheless seem to show a moderately favorable downward trend (Figure 7), with a median time for recent EISs of about 20 months. Cost results for EISs have fluctuated too broadly and are statistically too meager to draw any conclusion. LL

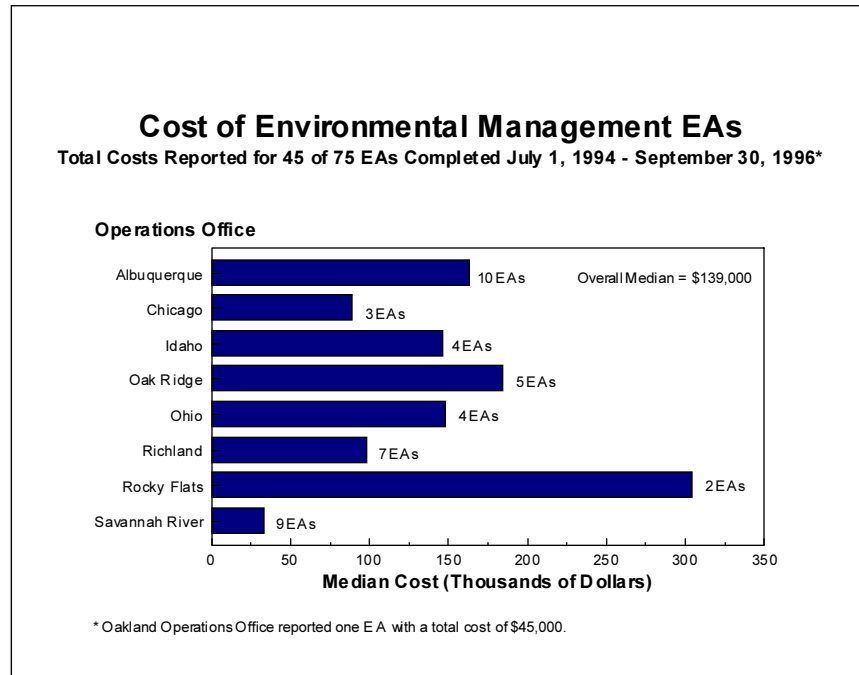


Figure 6

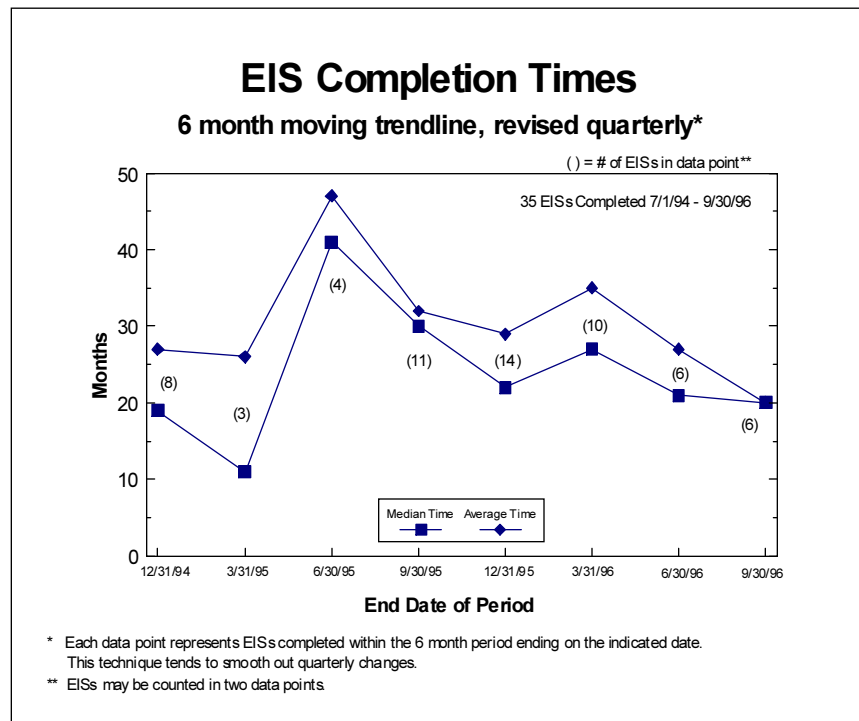


Figure 7



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## Evaluation Form

### *How are we doing?*

Does the format of the Lessons Learned Report help you understand the information? Do you have any suggestions for improvements? \_\_\_\_\_

Which sections do you consider to be the most helpful? The least helpful? \_\_\_\_\_

What should be added to the report to make it more useful? \_\_\_\_\_

Please offer any other suggestions on how we may improve the Lessons Learned Quarterly Report. \_\_\_\_\_

Your name (optional) \_\_\_\_\_

FROM:

Stamp

Office of NEPA Policy and Assistance, EH-42  
Attn: Joanne Arenwald Geroe  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585-0119