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NEPA Aids Cultural Resources Protection Native American Remains Receive Final Resting Place at Fernald

By: Edward P. Skintik, NEPA Document Manager, DOE-Fernald Environmental Management Project

One thousand years ago, the broad floodplain of the Great Miami River in what is now southwestern Ohio was home for indigenous people belonging to the Fort Ancient (or Upper Mississippian) Groups. In 1994, the discovery of Fort Ancient human remains along a proposed water supply line alignment marked the beginning of what turned out to be an extensive, three-year consultation and compliance process for DOE staff and contractors at the Fernald Environmental Management Project (FEMP). NEPA was an important part of the process: DOE-FEMP's preparation of an



Environmental Assessment for the Disposition of the Prehistoric Remains proved to be an effective means to provide information to stakeholders, develop a consensus among involved parties regarding culturally sensitive materials, and further the goals of cultural resources protection.

The new public water supply was needed to serve residents near FEMP, where groundwater supplies had become contaminated. Although the construction area was within an existing easement on private land, the project was "federalized" due to partial funding by DOE, and, in 1992, it was reviewed under NEPA. At that time, DOE determined that the proposed action was similar in scope to removal actions under the Comprehensive Environmental Response, Compensation, and Liability Act, and therefore, under DOE NEPA regulations, eligible for categorical exclusion.

A pre-construction archaeological survey in 1994 identified prehistoric bone fragments and associated funerary objects at three sites along the proposed water line. All three sites were recommended as eligible for the National Register of Historic Places, and DOE-FEMP entered into a Memorandum of Agreement with the Ohio Historic Preservation Office and the Advisory Council on Historic Preservation. Under this agreement,

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Joseph Schomaker, Cultural Resource Coordinator at Fernald (right), with Diane Seltz, subcontractor at Fernald, at the excavation of prehistoric Fort Ancient Site (1000 AD to 1400 AD).

FOR INSIDE LESSONS LEARNED See Page 2

Sandia National Laboratories/New Mexico Site-wide Environmental Impact Statement

Trying Some New Approaches—and They Are Working

By: Donna A. Bergman, Director of EIS Projects Office, Albuquerque Operations Office

DOE Albuquerque Operations Office (DOE/AL) is in the early stages of preparing the Sandia National Laboratories/ New Mexico Site-wide Environmental Impact Statement (SNL/NM SWEIS). Because several SWEISs have been completed recently, we have the opportunity to benefit from many lessons learned. This will be the first major NEPA document prepared using one of the new DOE-wide NEPA task order contracts *(see page 10)*. In this article,

Inside LESSONS LEARNED

Welcome again to the Quarterly Report on lessons learned in the NEPA process. This issue features "NEPA success stories" from field organizations: how the NEPA process helped resolve cultural resource protection issues at Fernald, and how innovative approaches are aiding preparation of a Site-wide EIS for Sandia, New Mexico.

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A special *thank you* goes to our guest contributors for this issue: Donna Bergman, Gary Palmer, Ed Skintik, and Ellen Smith.

Remember: you, too, are welcome to submit articles for consideration in Lessons Learned.

Carol Borgstrom

Director Office of NEPA Policy and Assistance we share some of the approaches we are using for the early phases of the SWEIS process—and so far, so good!

Scoping

The Environmental Impact Statement Projects Office at the Albuquerque Operations Office conducted public scoping meetings in Albuquerque on June 23, 1997. Based on interviews with members of the public, we used an "Open House" format to ensure an effective meeting. The following elements were included:

• DOE representatives were either DOE/AL or Sandia employees (no other contractors).

• In lieu of formal presentations, an introductory video was shown that outlined the public scoping process, including how to make comments during the meeting and throughout the scoping period. Other videos provided an overview and a historical background of Sandia operations.

• Displays of Sandia operations were staffed by Sandia technical experts who discussed their operations and answered the public's questions.

• DOE facilitators greeted the public, explained the meeting format and comment process, and answered questions. These facilitators were prepared to oversee "round table" discussions, as needed. Most discussions with the public were one-on-one, but several small discussions did take place with a facilitator.

• Several systems were in place to accept and record public comments: a lap-top computer and printer, a court reporter, and access to a facilitator to help with written comments. In addition, a toll-free telephone number has been established for members of the public to use throughout the SWEIS preparation.

Participants were asked to fill out a questionnaire as they left the meeting. Of the approximately 80 people who attended, the overwhelming majority appreciated the Open House format. They felt free to ask questions, give their opinions, and come and go at their leisure. They also appreciated the undivided attention they got from DOE and Sandia employees and liked the fact that no other contractors were involved.

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Preliminary Injunction Denied in Stockpile Stewardship and Management Lawsuit

By: Stephen Simpson, Office of NEPA Policy and Assistance

On August 8, 1997, Judge Stanley Sporkin of the U.S. District Court for the District of Columbia denied the motion for preliminary injunction filed by the Natural Resources Defense Council, Inc., et al. The plaintiffs sought to enjoin DOE from expending funds and proceeding with facility construction or major upgrades on thirteen DOE projects related to the Stockpile Stewardship and Management (SSM) Program. The plaintiffs alleged that DOE failed to perform an adequate environmental review of the program as required by NEPA, and argued that the Department's SSM Programmatic Environmental Impact Statement (PEIS) was arbitrary and capricious. *(See related article in the Lessons Learned Quarterly Report, June 2, 1997, page 5.)*

During the court hearings, the plaintiffs limited their motion to apply only to the National Ignition Facility at Lawrence Livermore National Laboratory and the Chemistry and Metallurgy Research Building and the Nuclear Materials Storage Facility at Los Alamos National Laboratory.

Plaintiffs Unlikely to Prevail

The court found that none of the plaintiffs' arguments was sufficiently compelling to grant the injunction and that they were unlikely to prevail on the merits of their case. The plaintiffs had argued that the entire SSM Program Plan must be considered in the SSM PEIS. Specifically, they claimed that the Programmatic No Action Alternative prevents useful comparison of other alternatives because it includes proposed SSM Program actions (which generally were the subject of separate NEPA review, but had not yet begun operations), rather than only current activities.

The plaintiffs also argued that the Preferred Programmatic Alternative should include future activities and facilities related to the development of new technologies (rather than leaving them subject to further NEPA review). The court noted that the SSM Program does not represent a new proposal and is not a static program. The court ruled that it could not reasonably construe NEPA or the Council on Environmental Quality Regulations to require the Department to prepare a single, comprehensive PEIS on the SSM Program.

The plaintiffs also claimed that the SSM PEIS was inadequate because the Department did not rigorously and objectively evaluate reasonable alternatives to the SSM Program Plan. The plaintiffs' argument was largely focused on the Consolidation Option and the Remanufacturing Option, both of which DOE had eliminated from detailed analysis in the PEIS. (The Consolidation Option concerned consolidation of plutonium and uranium handling activities both within the management and stockpile stewardship programs and within and between sites. The Remanufacturing Option concerned the remanufacture of weapons components to the original design specifications without using simulation facilities to ensure their safety and effectiveness.) The court ruled that the Department is "entitled to some deference" with respect to the reasonableness of particular alternatives, especially in light of Presidential and Congressional mandates, and deferred to the Department's choice of alternatives.

National Security Interests Important

In deciding whether to grant a motion for a preliminary injunction, a judge must balance harm to the plaintiff's interests with harm to the defendant's interest. In this case, the court noted that "the national security interests associated with implementing the SSM Program likely outweigh plaintiffs' immediate environmental concerns." However, the court ordered DOE to "perform a fuller disclosure" of the environmental, health, and safety risks associated with the plutonium pit fabrication program at Los Alamos National Laboratory and the National Ignition Facility within "a reasonable period of time." During the hearing on the case, DOE had offered to provide additional information of this nature. The court further directed that the disclosure should be responsive to the plaintiffs' concerns, although this disclosure need not delay the implementation of the program.

The court also noted that it expects DOE will produce annual site environmental monitoring reports for each facility involved in the SSM Program and will re-evaluate its program every five years. The court expects that DOE will make the nonclassified portions of the annual reports available to the plaintiffs "to allow them to monitor the government's actions" and will address "the plaintiffs' reasonable and specific questions" regarding the Consolidation and Remanufacturing Options within 60 days of receipt of the plaintiffs' written questions.

Fernald (continued from cover)

DOE was to implement a data recovery plan and determine the final disposition for the prehistoric remains and artifacts.

Cultural resources are protected under various Federal statutes, such as the National Historic Preservation Act, Native American Graves Protection and Repatriation Act (NAGPRA), and the American Indian Religious Freedom Act, and under Executive Order 13007, Protection of Sacred Sites. As in the NEPA process, consultation and public participation are important components of these Acts. Following the requirements of NAGPRA, DOE and its contractor, Fluor Daniel Fernald, initiated contacts with many Native American Tribes and organizations. In response, four Federally recognized Tribes, the Miami Tribe and the three Tribes comprising the Joint Shawnee Council, requested that DOE keep them informed and involved in the decision making. The Native American Alliance of Ohio also was kept involved as a consulting party under the National Historic Preservation Act.

In consultation with the National Park Service, the State Office of Historic Preservation, and interested Native Americans, data recovery was undertaken from late 1994 to early 1995; as requested by the landowner, DOE took official possession of the remains by way of a deed. The remains consisted of five prehistoric burials (complete skeletons), 15 to 20 partial burials (incomplete skeletons), one dog skeleton, and associated funerary objects. (A sixth burial encountered during installation of the pipeline was left in place.) With the consent of Native American Tribes and Groups, nondestructive anthropological research was conducted at a local college. The complete skeletal remains were determined to be those of four females of various ages between 2 and 30, and one male, age 16. Through radiocarbon dating of the burial pits, the remains were determined to be approximately 970 years old.



Duane and Kevin Everhart of the Native American Alliance of Ohio.



Tom Fugate (subcontractor for Fernald's Cultural Resource Management) prepares chambers for curation underground of Native American remains at Fernald.

In compliance with cultural resource protection laws, and out of respect for Native American culture and traditions, DOE-FEMP and Fluor Daniel Fernald continued to maintain dialogues with the Native Americans in the effort to determine a final resting place for the remains. In late 1995, DOE determined that preparing an environmental assessment under NEPA could serve as an effective medium for full public participation—making the document available to all interested parties, including the Native American Tribes and Groups, government agencies, and other stakeholders. In addition to burial at FEMP, alternatives addressed in the EA were: reburial along the water line easement where the remains were found, reburial on County park grounds, reburial at a local cemetery, transfer to a Native American Tribe, and curation or storage.

Initially, all Native American Tribes and Groups indicated a desire to have the remains interred at FEMP. Soon after the EA was issued, however, the Miami Tribe of Oklahoma filed a claim under Section 3(a)(2)(B) of NAGPRA for possession of the remains, based on their assertion as the aboriginal occupants of southwestern Ohio. DOE maintained, based on data recovery results, that the remains were "culturally unaffiliated" and, therefore, did not belong to any one Tribe. In January 1997, all involved Native American Tribes and Groups agreed that the remains should be interred within a protected, two-acre site on the FEMP property, selected with active participation by Native American spiritual leaders.

In March 1997, DOE-FEMP closed out the NAGPRA consultation process by taking the matter to the NAGPRA Review Committee, a seven-member advisory board that makes recommendations to the Secretary of the Interior. The Committee concurred with DOE's position that the remains were culturally unidentifiable and should be "curated underground" on DOE property. DOE issued the EA and a Finding of No Significant Impact in May 1997, completing the NEPA review.

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Fernald (continued from page 4)

Putting the prehistoric remains to rest on DOE-controlled property was possible only through a cooperative effort among the Federal government, the Native American Tribes and Groups, and other stakeholders. Through the NAGPRA consultation process, which included face-to-face meetings with the Native American Tribes, DOE and Fluor Daniel Fernald worked to resolve the Miami Tribe's claim, while also honoring the wishes of other involved Tribes and Groups. The informative EA, explaining various provisions of NAGPRA and the alternatives available to DOE, kept all parties (literally) reading from the same page.

Curation underground, probably the first such effort of its kind in Ohio, took place at the Fernald facility on May 25, 1997. During a private ceremony conducted by the spiritual leaders and members of the Miami Tribe of Oklahoma and the Native American Alliance of Ohio, the skeletal remains were carefully reinterred in the same orientation and position as they were found (the dog rests again with its master). With the graves protected on Federal property and access to the sacred site restricted to the Native American Tribes and Groups, all parties were satisfied with the outcome.

For more information regarding this project, contact Edward Skintik, DOE-FEMP, at Ed_Skintik@fernald.gov or (513) 648-3151; or Joe Schomaker, Fluor Daniel Fernald, at (513) 648-3277. For general information on NAGPRA and other cultural resource management issues, contact Lois Thompson, DOE Federal Preservation Officer, Office of Environmental Policy and Assistance, at (202) 586-9581.

Sandia SWEIS (cont'd. from page 2)

Using NEPA Task Order Contracts

DOE issued a Request for Task Order Proposal to the three DOE-wide NEPA task order contractor teams on July 15, 1997, for preparation of the SNL/NM SWEIS *(see page 10)*. DOE said it would evaluate cost and technical criteria, giving higher weight to the technical criteria. The teams were asked to submit the qualifications of the proposed project manager and key technical staff, and proposed Project Management, Public Participation, and Quality Assurance Plans.

SWEIS preparation was defined as three distinct phases or subtasks, to help us to control costs. The pricing approach varied according to what we considered to be most compatible with the scope of work for each subtask: draft SWEIS – cost plus incentive fee; public participation – cost plus fixed fee; and final SWEIS – firm-fixed price.

Because only one contractor was to be selected, the three contractors were asked to bid on the proposal on an all-or-none basis. The task was awarded to Halliburton NUS Corporation on August 15, 1997, and the contract began on August 18, 1997.

Preparation of the SWEIS

Under our team approach to the SNL/NM SWEIS, all three parties—DOE, Sandia, and Halliburton NUS Corporation—have responsibilities for the preparation of a quality document. To expedite the EIS, Sandia has been preparing information documents since the beginning of the year on environment and safety data



A bird's-eye view of Sandia National Laboratories.

and Sandia programs and facilities. For each information document, Sandia developed a task plan and budget (with direction from the DOE/AL EIS Projects Office). DOE formed key parameter teams for each resource area covered in the information documents to ensure that needed data are collected efficiently and effectively. The DOE key parameter teams also will review and comment on each draft of the Sandia information documents. We believe that having preliminary data right from the start will shorten Halliburton NUS's learning curve and will expedite preparation of the SWEIS.

For more information, contact Donna Bergman at dbergman@doeal.gov or (505) 845-5185; or Julianne Levings at jlevings@doeal.gov or (505) 845-6201. L

The Albuquerque NEPA Community Meeting in Retrospect: Reinvention Through Continuous Improvement

Continuous improvements in efficiency and effectiveness are central to DOE's NEPA compliance program. This was the focus of the DOE NEPA Community Meeting held June 24 and 25 in Albuquerque, New Mexico. In her opening remarks to the 115 participants, Carol Borgstrom (Director, Office of NEPA Policy and Assistance) said that while efficiency—making the process both cheaper and faster—helps to convince decision makers of the benefits of NEPA, effectiveness is ultimately the higher goal.

"When all is said and done at the end of the day, does NEPA make a difference at DOE?" Often, said Ms. Borgstrom, the answer is yes—but it depends on the issue and the decision maker. She encouraged meeting participants to reflect upon why they chose careers as environmental professionals—that is, not just to place some good documents on the shelf, but rather to achieve a better environment by informing decisions with high quality environmental analysis, and to see government making a difference.

The meeting, held at the Energy Training Complex on Kirtland Air Force Base, featured presentations by staff from the DOE Office of NEPA Policy and Assistance and the Office of General Counsel, DOE Field Offices, and other Federal agencies—some 25 speakers in all.

Robert Cunningham (Associate Director, Council on Environmental Quality) discussed CEQ's NEPA

Color Printing Must Contribute Value

During the Albuquerque meeting presentation on Effective Graphics in NEPA Documents, a participant asked whether there are official restrictions on color printing. The Government Printing and Binding Regulations, revised and published in February 1990 (S. Pub. 101-9) by the U.S. Congress' Joint Committee on Printing, recognize that while color printing increases costs, it may add demonstrable value. The Regulations (paragraphs 18-1 through 18-3) state that color printing must serve the end purpose of the printed item. "Maps and technical diagrams where additional color is necessary for clarity" is the first example listed of appropriate multicolor printing. Cited examples of multicolor printing that do not contribute demonstrable value include using more colors than necessary and using color for decorative effect or in lieu of effective design. The Regulations apply to all U.S. Government entities, except the U.S. Supreme Court. Copies are available from Yardena Mansoor at (202) 586-9326. ^L

Reinvention Initiative, an ongoing effort to foster improved NEPA implementation by all Federal agencies (see page 8). Mark Southerland (Versar, Inc.) and Ken Mittelholtz (Environmental Protection Agency) discussed CEQ's recent handbook on considering cumulative effects (see Lessons Learned Quarterly Report, March 3, 1997, page 3). Mr. Mittelholtz also reviewed EPA's role in the NEPA process. Matt Urie (Office of General Counsel) provided an update on current legal issues and explained the value of preparing a good administrative record for DOE NEPA documents (see page 7). Dawn Knepper (Contracting Officer, Albuquerque) discussed the DOE-wide Task Order NEPA Contracts and introduced the Program Managers for the three contractor teams (see pages 10-11). Ellen Smith (Oak Ridge National Laboratory) reported on the annual meeting of the International Association for Impact Assessment (see page 11); and Lee Jessee (Office of NEPA Policy and Assistance) provided a hands-on demonstration of the DOE NEPA Web.

From the Office of NEPA Policy and Assistance, various presentations reflected current NEPA guidance topics in various stages of development *(see page 9)*. Among these is a "new look" at categorical exclusion procedures, being prepared in conjunction with the Office of General Counsel. The presentation stressed the importance of the NEPA Compliance Officer preparing a simple but adequate record of categorical exclusion determinations *(see page 9)*.

Other guidance topics included the DOE regulatory process (specified at 10 CFR 1021.216) that provides an environmental review process for privatization actions *(see page 8).* In addition, plans for guidance on accident analysis were described, focusing on the NEPA context, rather than technical detail, and providing illustrations rather than prescriptions *(see page 9).* A presentation on better graphics in NEPA documents provided thoughtprovoking examples of common problems and solutions.

NEPA guidance also is being developed by the Office of Defense Programs and the Office of Environmental Management. Gary Palmer (DP-45) discussed his office's NEPA guidance documents, and Steven Frank (EM-75) announced EM's draft *NEPA Guidance Handbook*, currently out for review.

All of these topics provide ample evidence of how DOE is reinventing its implementation of NEPA, in keeping with the CEQ initiative. In closing the meeting, Ms. Borgstrom referred appreciatively to Mr. Cunningham's presentation on NEPA Reinvention and, as he also had done, urged participants to read once again their Nation's pre-eminent environmental policy, the National Environmental Policy Act. L_L

Keeping an Administrative Record

At this summer's DOE NEPA Community Meeting, Matt Urie (Office of General Counsel) described the importance of preparing a good administrative record. Here are a few key points from his presentation.

For every DOE NEPA document, there should be an administrative record. In general, the administrative record should consist of all documents (hard copies, electronic files, overhead slides, pictures, or other documents or records) relied upon in preparing the NEPA document and those that were considered by the decision maker in arriving at any decisions. The administrative record documents DOE's consideration of all relevant and reasonable factors and should include evidence of diverging opinions and criticisms of the proposed action or its reasonable alternatives. Overall, it should demonstrate and document that DOE took the "hard look" at the proposed action and its reasonable alternatives that is required by law. Documentation of the NEPA/decision making process is governed by the Administrative Procedure Act. Among other things, the Act imposes the standards of judicial review against which an agency's actions, including decisions following the preparation and completion of a NEPA document, are judged. In general, the Act allows a court to set aside agency actions that are arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. The Administrative Procedure Act complements NEPA's procedural requirements for involving the public in an agency's decision making process. A good administrative record helps the public understand the rationale behind an agency's decision.

An administrative record for an environmental impact statement typically should include all public notices, references, and technical studies relied upon in preparing the statement and its appendices; concurrences; public comments and responses to those comments; internal



Matt Urie offers some pointers on keeping an administrative record.

An Administrative Record

• should be compiled for every NEPA document in consultation with legal counsel;

 should demonstrate that DOE took the requisite "hard look" at the proposed action and its reasonable alternatives;

 should be kept in one central and secure location apart and distinct from other project files;

• should be overseen by a Department employee, such as the NEPA Document Manager;

• may include classified or privileged documents (these documents should be handled according to proper procedures);

• should be compiled contemporaneously with the preparation of the NEPA document; and

• should be user-friendly and organized in a manner that facilitates easy retrieval of the documents.

memoranda; and in some cases document drafts (e.g., those that document exchanges of opinions or discussions of substantively important and material issues). While copies of generally available reference books or publications relied upon in preparing the impact statement need not be included in the administrative record, photocopies or other references to particular pages or excerpts used in the impact statement may be included. NEPA Document Managers with questions regarding the inclusion of particular documents or classes of documents in an administrative record should contact their legal counsel for additional guidance. The Office of General Counsel is drafting guidance for the preparation of administrative records. L₁

Accident Analysis Guidance—Some "Nagging" Topics

In a NEPA Community Meeting presentation on accident analysis guidance that he is co-preparing, Eric Cohen, Office of NEPA Policy and Assistance, suggested that the guidance should address the "nagging" topics of: application of the *Sliding Scale;* determining which accident scenarios to analyze; assessing impacts to involved workers; providing a contextual framework for natural and human-caused beyond-design-basis accidents; indirect impacts; relationship to Safety Analysis Reports; consistency among EISs; justifying assumptions; "significance" versus risk. A meeting participant suggested an additional topic, non-radiological impacts. Your comments are welcome on whether these are the highest priority topics for guidance *(see "NEPA Guidance Update" box, item 7, page 9).*

Council on Environmental Quality's NEPA Reinvention

"We seek NEPA's clear vision to: conserve resources for future generations, promote widespread beneficial uses of the environment, and provide equity and preservation of history, culture, and nature."

> —Robert Cunningham (paraphrase of NEPA, Section 101(b))

At this summer's DOE NEPA Community Meeting, Robert Cunningham (Associate Director, Council on Environmental Quality) discussed CEQ's NEPA Reinvention Initiative and urged participants to take a fresh look at the original goals of NEPA.

Initiative

In its program to "rediscover and implement our nation's environmental policy," CEQ has stated its objective, defined five broad goals, and developed five program areas that form the framework for its "NEPA Reinvention Initiative." (This Initiative stems from CEQ's study of NEPA's effectiveness; see *Lessons Learned Quarterly Report*, March 3, 1997, page 1.)

Objective

By integrating the concepts of NEPA into agency missions, plans, and programs, each Federal decision maker will rediscover and implement our Nation's environmental policy by the end of this century.

Goals

• **Implement** NEPA as a comprehensive vision of government decision making, not as a mere procedure;

• **Evolve** from authoritative to facilitative government/ public relations;

• **Increase** public accessibility to the Federal decision making process;

• **Enhance** the flexibility of NEPA procedures to achieve its original environmental, social, and economic aspirations; and

• **Eliminate** redundant administrative procedures, increase collaborative relationships, and implement continuous, adaptive management actions.

Program Areas

- Interagency coordination and integration;
- Interagency training;

• Pilot projects and examples of NEPA implementation in each of five areas identified in the NEPA Effectiveness Study: strategic planning, public information and input, interagency coordination, interdisciplinary and "place-based" approach to decision making, and monitoring and flexible environmental management;

- Performance reporting; and
- External communication.

CEQ welcomes comments on NEPA Reinvention, including ideas on making NEPA compliance easier and on overcoming barriers to effective implementation. For more information, contact Robert Cunningham at cunningham_r@a1.eop.gov, (202) 395-5750, or fax (202) 456-6546.

NEPA Review of Privatization Initiatives

As discussed at the Albuquerque NEPA Community Meeting, DOE increasingly is exploring contracting arrangements that shift greater performance and financial risk to the private sector. In such "privatization," private market mechanisms are substituted for traditional Government roles, products, and services; the Federal acquisition system is used to achieve privatization objectives. Privatization does not diminish DOE's responsibility under NEPA. However, it poses challenges to full and timely NEPA compliance, because it involves proprietary information, reliance on alternatives proposed by the private sector, and marketplace timing drivers.

The DOE NEPA Regulations at 10 CFR 1021.216 establish an environmental review process as part of procurement proposal evaluation. Section 216 sets out a procedure by which DOE can meet significant acquisition objectives while a NEPA review is under way. It also describes how relevant environmental considerations can be factored into the acquisition evaluation process and be made publicly available.

DOE NEPA practitioners are encouraged to become familiar with the provisions of Section 216 as they may apply to privatization actions within their purview. The Office of NEPA Policy and Assistance distributed draft guidance on this subject in June 1997 and currently is revising the guidance to address comments. Questions may be directed to Stan Lichtman at stanley.lichtman@eh.doe.gov or (202) 586-4610. L_L



Categorical Exclusion Procedures: A New Look

As discussed at the Albuquerque NEPA Community Meeting, two recent lawsuits involving DOE's use of its categorical exclusions have prompted the Offices of NEPA Policy and Assistance and General Counsel to take a "new look" at DOE's categorical exclusion procedures, including documentation for categorical exclusions.

The thrust of the proposed guidance is that for all but the most routine actions, DOE should prepare a simple yet

NEPA Guidance Update from the Office of NEPA Policy and Assistance

Guidance on several topics is under preparation by the Office of NEPA Policy and Assistance. Four draft guidance documents (1 through 4 below) were distributed to the NEPA community for review and comment in June 1997, and the Office is now reviewing comments for possible incorporation into the guidance. (Item 3 also was distributed to the procurement community.) Several other guidance documents (5 through 7 below) are in earlier stages of development. For more information, please consult the following points-of-contact. The fax number in all cases is (202) 586-7031.

- 1. RCRA/NEPA Integration Carolyn Osborne (202) 586-4596 carolyn.osborne@eh.doe.gov
- 2. DOE EIS Checklist Jim Daniel (202) 586-9760 james.daniel@eh.doe.gov
- 3. NEPA and Privatization Stan Lichtman (202) 586-4610 stanley.lichtman@eh.doe.gov
- 4. Categorical Exclusion Procedures Carolyn Osborne (202) 586-4596 carolyn.osborne@eh.doe.gov
- 5. Better Graphics in NEPA Documents Yardena Mansoor (202) 586-9326 yardena.mansoor@eh.doe.gov
- 6. Update of the Compliance Guide (Vol. II, Reference Book) Barbara Grimm-Crawford (202) 586-3964 barbara.grimm-crawford@eh.doe.gov

7. Accident Analysis Ted Hinds (202) 586-7855 warren.hinds@eh.doe.gov

Eric Cohen (202) 586-7684 eric.cohen@eh.doe.gov adequate record signed by the NEPA Compliance Officer. This record would provide evidence (e.g., to a reviewing court) that DOE considered all the necessary factors under its NEPA regulations at 10 CFR 1021.410:

• The proposal fits within a category of actions listed in Appendix A or B to subpart D;

- There are no extraordinary circumstances related to the proposal that may affect the significance of its environmental effects;
- The proposal is not "connected" (40 CFR 1508.25(a)(1)) to other actions with potentially significant impacts, is not related to other proposed actions with cumulatively significant impact (40 CFR 1508.25(a)(1)), and is not precluded by 40 CFR 1506 or 10 CFR 1021.211.

The record would also indicate for categorical exclusions in Appendix B that the proposed action included conditions listed in the regulations as integral elements (e.g., would not adversely affect environmentally sensitive resources).

A NEPA Compliance Officer may not delegate the responsibility for making categorical exclusion determinations. Generally, if consideration of a categorical exclusion leads to lengthy debate or if application of a categorical exclusion involves extensive documentation, then this may be a warning sign that an environmental assessment is appropriate.

The Office of NEPA Policy and Assistance distributed draft guidance on this subject in June 1997 and currently is revising the guidance to address comments. For more information, contact Carolyn Osborne at carolyn.osborne@eh.doe.gov, (202) 586-4596, or fax (202) 586-7031.

Environmental Impact Statement Begun

On July 25, 1997, DOE published a Notice of Intent (62 FR 40062) to prepare an environmental impact statement for the National Spallation Neutron Source, a proposed accelerator-based neutron source and neutron science research facility. The proposed site is Oak Ridge National Laboratory (Oak Ridge, Tennessee). The alternative sites are Argonne National Laboratory–East, Los Alamos National Laboratory, and Brookhaven National Laboratory. Technology alternatives include reactor-based neutron sources and variations in the accelerator-based system.

DOE-wide NEPA Document Preparation Contracts Awarded

On behalf of the Department of Energy, the Albuquerque Operations Office awarded three contracts on June 18, 1997, for NEPA document preparation services Department-wide (including the Federal Energy Regulatory Commission) to Halliburton NUS Corporation, Science Applications International Corporation, and Tetra Tech, Inc. *(see below)*. The contracts enable individual Program or Field Offices to quickly issue task orders for preparation of an environmental impact statement, environmental assessment, environmental report, or sections of these documents.

At a workshop on June 26, 1997, in Albuquerque, New Mexico (following the NEPA Community Meeting held there June 24 and 25), many NEPA Compliance Officers and others in the DOE NEPA Community learned how easily local Contracting Officers may issue task orders

The Three NEPA Contractors

• Halliburton NUS Corporation, prime contractor

Program Manager: Robert Shoup rshoup@b-r.com (505) 247-4933, fax (505) 247-8151

• Science Applications International Corporation (SAIC), prime contractor

Program Manager: Glen T. Hanson glen.t.hanson@cpmx.saic.com (505) 842-7858, fax (505) 842-7798

• Tetra Tech, Incorporated, prime contractor

Program Manager: Thomas Magette magette@ttalex.com (703) 931-9301, fax (703) 931-9222



L-R: Thomas Magette, Glen Hanson, and Robert Shoup.

under these contracts and the great flexibility the contracts provide to NEPA Document Managers in getting the work done. As Dawn Knepper (Contracting Officer for these contracts at the Albuquerque Operations Office) explained at the workshop, the NEPA Document Manager, in conjunction with a local Contracting Officer, defines the work, establishes selection criteria, selects the contractor, funds and administers the work, and evaluates contractor performance.

Work under these NEPA contracts may be started in as little as two to four weeks, depending on the complexity of the work. Offices may issue a task order on a cost-plus-fixed-fee, firm-fixed price, or cost-plusincentive-fee basis, according to how specifically the scope of work may be defined. These options can be used to create incentives for contractors to work efficiently. Task awards may be based entirely or in part on contractor performance on previous tasks.

Tasks already have been assigned under these contracts. For the Los Alamos National Laboratory Site-wide EIS, a task was awarded for preparation of a public comment database. Also, following a request for task proposals in July, a task was awarded August 15 to Halliburton NUS Corporation to support the preparation of the Sandia National Laboratories New Mexico Site-wide EIS. According to Sandia SWEIS NEPA Document Manager Julianne Levings (Albuquerque Operations Office), "These DOE-wide contracts are much more streamlined than traditional contracting approaches." *(See related article on the Sandia SWEIS, page 2.)*

As a key part of Strategic Alignment Initiative 29, whose goal is to achieve \$26 million in NEPA cost savings over five years, these contracts provide substantial opportunities for making the Department's NEPA program work better and cost less. Based on the Albuquerque workshop, the Office of Environment and the Office of Procurement and Assistance Management, with assistance from Albuquerque Operations Office, have jointly prepared a brief guide on issuing task orders under these contracts that will be distributed shortly. NEPA Contracting Reform Guidance previously issued by the Assistant Secretary for Environment, Safety and Health in December 1996 provides detailed advice on management techniques, contractor performance evaluation, and NEPA process cost measurement to help achieve the full potential benefits of the new contracts.

Credit for issuing these contracts is due in part to the NEPA, procurement, and legal staffs who participated in

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Contracts (continued from page 10)

the March 1996 NEPA Contracting Reform Workshop (organized by the Office of NEPA Policy and Assistance) and in the follow-up Acquisition Planning Team meetings during summer 1996. Their discussions established the utility, feasibility, and features of the shared DOE-wide task order contracts for NEPA support.

Thanks also to the dedicated and efficient work of the Contract Source Evaluation Panel consisting of Roger Twitchell (chair), NEPA Compliance Officer, Idaho Operations Office; Drew Grainger, NEPA Compliance Officer, Savannah River Operations Office; and William (Skip) Harrell, Operations Program Manager and Dawn Knepper, Contracting Officer, both from Albuquerque Operations Office. The panel was assisted by Headquarters advisors Carolyn Osborne of the Office of NEPA Policy and Assistance and Tom Brown of the Office of Procurement and Assistance Management.

For information on the DOE-wide NEPA contracts, please contact your NEPA Compliance Officer; Dawn Knepper at dknepper@doeal.gov, (505) 845-6215, or fax (505) 845-5181; or Carolyn Osborne at carolyn.osborne@eh.doe.gov, (202) 586-4596, or fax (202) 586-7031. L₁

Note: Dawn Knepper is available via teleconference or in person (if your organization is able to cover the costs) to conduct local workshops (in conjunction with your NEPA Compliance Officer) to get you jump-started on the use of these new contracts for NEPA document support.

International Impact Assessment Organization Provides Forum

By: Ellen Smith, Research Staff Member, Oak Ridge National Laboratory

NEPA practitioners wishing to explore impact assessment practices from a global perspective may want to join the International Association for Impact Assessment (IAIA), an international professional organization dedicated to advancing the world's capacity to anticipate, plan, and manage environmental, social, and technological impacts.

The only organization of its kind, IAIA was organized in 1980 to bring together researchers, practitioners, and users of impact assessment from all parts of the world. The current 2,500 members represent more than 95 countries. Regional chapters are active in various locations, including Canada, Europe, Brazil, Korea, South Africa, and the United States. International conferences, held annually at locations worldwide, typically draw 500 to 600 participants; these conferences often are associated with related training programs.

At the 17th annual IAIA conference, held in New Orleans in May 1997, the Department of Energy was one of several sponsors, including two other U.S. Federal agencies (Environmental Protection Agency and Bureau of Reclamation), government agencies from other countries, organizations, and businesses. Participants came from every continent except Antarctica. (A conference summary is available from the Office of NEPA Policy and Assistance at (202) 586-4600.)

The next annual conference is scheduled for April 1998 in Christchurch, New Zealand, and the announced theme is "Sustainability and the Role of Impact Assessment in the Global Economy." As a forum for information exchange and networking, IAIA facilitates the transfer of environmental impact assessment (EIA) knowledge from nations that have pioneered EIA development (e.g., the U.S., Canada, the Netherlands, and Australia) to other nations (such as developing nations and emerging democracies) that are trying to use EIA as a tool to improve decision making, to help protect environmental quality, or to conform with requirements of international organizations. Yet even for countries that primarily "export" EIA procedures and methodologies, there are lessons to be learned from new EIA experiments conducted elsewhere throughout the world.

IAIA's quarterly journal, *Impact Assessment*, contains peer-reviewed articles, professional practice ideas, and book reviews. The IAIA newsletter, published four times a year, provides members with information on association activities and events. IAIA also hosts email list servers on topics of current interest, including social impact assessment, urban environmental issues, ecological impacts assessment, assessment methodologies, and "strategic" (e.g., programmatic) environmental assessment.

For more information on IAIA or to inquire about membership, contact the Executive Director, Rita Hamm, North Dakota State University, at rhamm@ndsuext.nodak.edu or (701) 231-1006; access the IAIA Web site at http://IAIA.ext.NoDak.edu/IAIA. The e-mail list servers are administered by Dr. Frank Vanclay in New South Wales, Australia; his e-mail address is fvanclay@csu.edu.au.

Training Spotlight Forest Service Seminar Focuses on Responses to Public Comments

By: Gary Palmer, Deputy NEPA Compliance Officer, DOE Office of Defense Programs

A two-day seminar by the U.S. Department of Agriculture's Forest Service highlighted lessons learned in the NEPA comment and response process. The seminar followed the NEPA Community Meeting in Albuquerque, New Mexico, and was arranged primarily for Albuquerque Operations Office personnel by its NEPA Compliance Officer, Jeff Robbins.

The presenters were Rhey Solomon, Forest Service NEPA Coordinator, and Jody Sutton, a Content Analysis Specialist with the Forest Service Content Analysis Enterprise Team. Their presentation, "Public Perception Analysis, Risk Assessment and Response Training," included useful exercises and was capped by a summary and recommendations. Members of DOE's Albuquerque EIS Project Office, team members for the Los Alamos and Sandia Site-wide EISs, and others from the NEPA community attended.

Mr. Solomon and Ms. Sutton led the attendees step-by-step through the process of planning and carrying out responses to public comments, providing examples and practical instruction throughout.

The Planning Phase

In discussions of the planning phase, the instructors addressed applicable requirements and effective ways to encourage meaningful comments—many of which DOE had used earlier in the Sandia Site-wide EIS public scoping meetings (*see page 2*).

The instructors outlined methods for creating a database to maintain records of comments and then moved to the critical area of content analysis—a key factor affecting

Be a Part of LLQR

We are already planning for the next edition of *Lessons Learned Quarterly Report*, and we want your contributions. If you would like to submit an article for the fourth quarter 1997 edition of LLQR (#13), please contact Yardena Mansoor to discuss your suggestion by the end of September. Yardena may be reached at yardena.mansoor@eh.doe.gov or (202) 586-9326. Submissions will be due by October 17, 1997. **L**

accurate presentation of public comments. They presented a comprehensive table of considerations designed to help NEPA Document Managers to select among alternative approaches: "do-it-yourself," using a NEPA contractor, or using a subcontractor for specialized assistance with content analysis. The Forest Service group is available to provide assistance in this area; Mr. Solomon and Ms. Sutton stressed the importance of analysis of the comments by a disinterested party to assure objectivity.

Response Preparation

For response preparation—the next step in the process the instructors presented a framework (with examples) for determining a format for presenting comments and responses, based on the number of comments received and their complexity. The value of this framework is that it enables the NEPA Document Manager to plan for and complete the comment responses in a logical, organized way.

In closing, Mr. Solomon and Ms. Sutton noted the importance of explaining the process in the introductory narrative in the EIS. Finally, they discussed current issues, including Forest Service experiences with Freedom of Information Act/Privacy Act requests.

The Forest Service presentation should interest anyone embarking on an EIS, particularly before the public scoping meetings and the public hearings on the draft EIS are held. NEPA Document Managers should arrange such training for the entire EIS team at about the time the Notice of Intent for an EIS is published.

For more information on the availability of presentations or comment response assistance by the Forest Service Content Analysis Enterprise Team, contact Jody Sutton at (406) 758-5243. Course materials are available for review at DOE Headquarters (DP-45, Forrestal 4B-087); for more information, contact Gary Palmer at gary.palmer@dp.doe.gov or (202) 586-1785.

[Editor's Note: Based on the instruction, the Office of Defense Programs is revising the draft document entitled "Comment Response in DOE's NEPA Process" distributed at the June 1997 NEPA Community Meeting. Mr. Palmer welcomes comments on that draft for use in preparing the next version, to be distributed at the next NEPA Community Meeting.]



By: Stephen Simpson, Office of NEPA Policy and Assistance

Department Settles Paducah Lawsuit; Agrees to Prepare Environmental Assessment

On July 10, 1997, the Department and Mr. Mark Donham filed a Joint Stipulation of Dismissal in *Donham v. United States Department of Energy* in the United States District Court for the Western District of Kentucky. The lawsuit concerned the categorical exclusion listings in the Department's 1992 NEPA regulations (as amended in 1996) and the application of two of those exclusions to the proposed Vortec Corporation Vitrification Demonstration project at the Paducah Gaseous Diffusion Plant.

The Joint Stipulation is based on a Settlement Agreement that commits the Department to withdraw the remaining categorical exclusion determination (DOE withdrew one categorical exclusion determination before the Settlement Agreement) for the proposed Vortec project and to prepare an environmental assessment analyzing the potential environmental impacts associated with the proposed test of the Vortec process and the proposed two- to three-year operation of the Vortec facility. (After the proposed test of the process, the Department will examine the results to determine if the process conforms to the Department's expectations and whether modification of the environmental assessment is necessary.) According to the Settlement Agreement, the Department can take delivery of the equipment for the Vortec process, but cannot assemble the equipment or consider procurement of the equipment in its decision whether to proceed with the project. The plaintiff committed to fully participate in all public processes associated with the preparation of the environmental assessment.

Pursuant to the Agreement, the court has dismissed the plaintiff's claim against the Department's 1992 and 1996 NEPA regulations. The plaintiff is allowed under the Agreement to file another lawsuit challenging the 1992 and 1996 regulations, but cannot do so in conjunction with the Vortec project.

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Coming Training Events

Advanced Topics in Environmental Impact Assessment

Larry Canter, University of Oklahoma Samuel Atkinson, University of North Texas November 5–7, 1997: Dallas/Fort Worth Airport Holiday Inn Fee: \$595 For information, call Environmental Impact Training at (405) 321-2730 *This course emphasizes emerging topics, tools, methods, and issues. Customized classes are available. Two- and three-day courses also are offered in environmental monitoring, risk assessment, and cultural resources.*

Presenting Data and Information

Edward Tufte, Yale University

Fee: \$300 (includes three books by Professor Tufte); discount for multiple registrations

One-day training; dates and locations to be determined

For information, call (800) 822-2454 between 9 AM and 5 PM Eastern Standard Time

The course centers on effective presentations in person, on paper, and in other media. Topics include strategies for information design; color; statistical data; scientific presentations; complexity and clarity; use of video, overheads, computers, and handouts; information displays in public spaces; animation and scientific visualizations. DOE Environment, Safety and Health staff have taken this class and found it highly relevant and insightful.

Improving EIS Readability

Do environmental impact statements (EISs) convey information effectively to the general public—the target audience of these documents? Even if the answer is "yes," how could we improve them? These questions are the topics of two recently published articles in *Environmental Impact Assessment Review*. Three researchers from the University of Illinois conducted tests on high-school students in Joliet, Illinois, to quantify their ability to understand and recall project descriptions and environmental consequences of a local flood control plan EIS.

In the first study, ¹ students read portions of the EIS and then answered questions about the project and its environmental effects. The study's findings were clear: the participants' understanding of the EIS material was "atrocious," even among the best readers. Overall, the students' performance was far below 70 percent-the measure the authors considered to be adequate regarding comprehension, the equivalent of an academic "C." According to Dr. William Sullivan, a professor of natural resources and environmental sciences at the University of Illinois and principal author of the study, "An agency that fails to produce an EIS that citizens understand opens itself to lawsuits." When citizens cannot understand the material presented in an EIS, they cannot participate in the process. Furthermore, those who cannot comprehend the facts presented in an EIS often will try to obtain clarification from other sources-the local media, for examplewhich often describe projects inaccurately.

The Illinois group's second study² offers several suggestions that are cost-effective and easy to implement. The first of these, "photosimulation," involves a series of "before" and "after" pictures of a project area, the latter of which are created with photograph manipulation software, such as Adobe Photoshop, to show possible changes in the landscape. In the example provided by the Illinois group, pictures of a local creek were used, showing what the creek would look like if flood control measures were installed (see photos). When the researchers tested high-school students' comprehension of the same EIS-but with the addition of photosimulation-the groups scored higher on comprehension tests. Specifically, two of the three measures, understanding the gist of the project and understanding environmental effects, improved to a level significantly greater than 70 percent. The third measure, project recall, did not increase significantly. Project recall contained the most technical information; therefore, photosimulation may not have contributed to increased readability in this area.

The researchers' second suggestion for improving comprehension of EISs, surprisingly, is simple editing. EIS authors can "help the

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The flood control features suggested for the Hickory Creek included three different treatments of the creek banks. The banks were to be changed from their existing condition (Figure 1) to either a fabric formed concrete embankment (Figure 2), a vertical concrete wall (Figure 3), or an earthen embankment (Figure 4). [Photos reprinted with permission from Environmental Impact Assessment Review, Vol. 17(4), Sullivan, W.C., F.E. Kuo and M. Prabhu, "Communicating with Citizens: The Power of Photosimulations and Simple Editing." pp.295-310, July 1997. Elsevier Science Inc.]

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 April 1 and June 30, 1997. Comments and lessons learned on the following topics were submitted by questionnaire respondents.

Scoping

- Though a lot of attention was paid to internal scoping, some issues were missed that had to be addressed further into the process. It took extra time, but it improved the final product.
- After working out the basic structure of the alternatives in internal scoping meetings, the team could focus on the actual EIS analyses.
- A major scope change (cutting out environmental restoration waste and activities) caused delays. A lot of time and money was spent on defining reasonable alternatives for environmental restoration and then explaining removal of environmental restoration from the scope of the EIS.

Data Collection/Analysis

- Some early Document Managers did not stress preparation of a quality PEIS.
- The choice of an inexperienced contractor for a major EIS led to inefficiencies in analysis and the need to restructure the contract mid-stream.
- Information gathered from the sites and waste management program databases proved unreliable, resulting in information gaps and stakeholder concern about the accuracy of the analysis.

Schedule

Factors that Facilitated Timely Completion of Documents

- The brevity of the EIS and familiarity of team members with its content.
- The scope of the EA was well-defined.

Editor's Note: Some of the material presented 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.

- A strong Document Manager with experience in completing high-profile PEISs in a cost-effective and timely manner.
- Contractor specialists focused on improving the readability of the PEIS and on the technical aspects of production and distribution.

Factors that Inhibited Timely Completion of Documents

- The need for the proposed project diminished and was replaced by other priorities.
- Toward the end of the EA preparation process (after a draft EA was prepared), the Project Manager wanted to change the proposed action. This resulted in a delay, confusion, and some additional analysis and revisions to the text.
- The DOE Project Manager did not keep himself informed about NEPA activities, and the contractor Project Manager did not review the EA in a timely manner.

Factors that Facilitated Effective Teamwork

- Weekly meetings helped to track action items and data requests. Issues identified during the process were immediately addressed.
- Familiarity, respect, and trust among team members provided good attitudes and clear, collaborative communications.
- Frequent communication between the program office and EH/GC, including inviting EH and GC to internal meetings with contractors.
- The contractor preparing the EA had excellent writing skills and was willing to share early drafts with team members, whose comments provided useful feedback early in the writing process.

continued on next page

NEPA Process (continued)

Factors that Inhibited Effective Teamwork

- Cooperating Federal agencies did not participate and/or withdrew from cooperating status.
- Document Managers and their staff changed at least five times, and some early Document Managers did not exercise adequate control over preparation of the PEIS.

Public Participation Process

Successful Aspects of the Public Participation Process

- Interested stakeholders were kept informed of actions as we progressed through the NEPA process.
- Videoconference format for hearings on the draft PEIS worked well and allowed DOE HQ people to "attend" hearings in the field.

Unsuccessful Aspects of the Public Participation Process

• Tribes did not acknowledge written notification that DOE had provided them and may have been

Reminder:

Lessons Learned Questionnaires for all NEPA documents completed during the fourth quarter of fiscal year 1997 (July 1, 1997 to September 30, 1997) should be submitted as soon as possible after document completion, but no later than October 31, 1997.

For Lessons Learned Questionnaire issues, contact Hitesh Nigam at hitesh.nigam@eh.doe.gov, (202) 586-0750, or fax (202) 586-7031. For articles, guidance, and editorial matters, contact Yardena Mansoor at yardena.mansoor@eh.doe.gov, (202) 586-9326, or fax (202) 586-7031.

The Lessons Learned Questionnaire is available interactively on the DOE NEPA Web [http://tis.eh.doe.gov/nepa/] on the Internet. Look for it under NEPA Process Information. under the impression that no attempt had been made to involve them. More person-to-person involvement with Tribes is needed in the future.

Public Reactions to the NEPA Process

- Pay attention, early and often, to any individual or group that may be an adversary or that may misunderstand what you are trying to do.
- We received positive reactions to the way the public has been involved in the process, but the overall reaction to the PEIS has been negative due to the long time it took to prepare the document and its high cost.

Further Guidance Needs Identified

• Information on the appropriate level of analysis in programmatic EISs would be useful.

Usefulness

Agency Planning and Decision Making

- NEPA review was initiated early in the project, and the alternatives presented made the options clear to decision makers.
- Much of the decision making ended up being through other processes, or resulted in decisions to stay largely with the status quo (which is a valid outcome of the NEPA process, but calls its usefulness into question).

Enhancement/Protection of the Environment

- The NEPA process ruled out use of some intrusive remediation methods and also resulted in commitment to restore the remediated site with suitable native plant communities.
- The EA is also a plan for resource management and commits to mitigation as a condition of the project, reducing environmental impacts of mining.
- The NEPA process highlighted alternatives to minimize impacts.
- Though the environment may not have been protected, the understanding of the magnitude of impacts was improved.

continued on next page

Third Quarter FY 1997 Questionnaire Results

NEPA Process (continued) Effectiveness of the NEPA Process

The charts below illustrate how respondents rated the effectiveness of the NEPA process. For the purposes of this section, "effective" means that the NEPA process was rated 3, 4, or 5 on a scale from 0 to 5, with 0 meaning "not effective at all" and 5 "highly effective."

For this quarter, all five respondents for EAs and five of the nine respondents for EISs rated the NEPA process as "effective."

Percent of NEPA Respondents

Rating the NEPA Process as Effective 6-month moving trendline, revised quarterly* EISs Percent 100 80 Average = 74% 60 40 20 6/30/97 9/30/95 12/31/95 9/30/96 12/31/96 3/31/97 6/30/95 3/31/96 6/30/96 (12) (19) (16) (28) (28) End Date of Period (Total Number of Respondents) EAs Percent 100 80 60 40 Average = 54% 20 6/30/95 9/30/95 12/31/95 3/31/96 6/30/96 9/30/96 12/31/96 3/31/97 6/30/97 (52) (77) (55) (25) (21) (24) (16) (27) End Date of Period (Total Number of Respondents)

* Each data point represents questionnaire responses for the 6-month period ending on the indicated date. This technique tends to smooth out quarterly changes.

Several respondents stated that because the NEPA process was begun early, the project was positively influenced in many ways, including protection of the environment and savings in time and costs.

One EA respondent noted that information gathered during the NEPA process identified CERCLA issues associated with some of the alternatives. Even though actions may await resolution of these issues, the respondent stated that a "CERCLA mess" was certainly avoided in this instance.

One EIS respondent rating the process as "ineffective" stated that much of the decision making was made through processes other than NEPA. L_L

Improving EIS Readability (continued from page 14)

reader see the forest before the trees" by following seven simple rules: provide an overview, provide headings, state headings as questions, make headings distinct, use locally recognizable landmarks to identify locations of project work, explain technical terms as they come up (rather than in a glossary), and use text bullets. When these techniques were employed in addition to photosimulation, comprehension increased dramatically, to more than 80 percent for each of the three measures.

Why doesn't every agency use these techniques? Unfortunately, each method has limitations. Photosimulations are only effective for those projects that involve a visible, physical change, and therefore do not apply to projects such as the transportation of nuclear waste. Simple editing offers great potential for improving EIS readability; however, one needs to be careful not to lose important detail when incorporating editing suggestions.

Even with limitations, these techniques can vastly improve the readability of EISs. DOE NEPA Document Managers should consider these approaches to writing NEPA documents. After all: improved, reader-friendly EISs promote greater public understanding and cooperation. L_{I}

¹ Sullivan, W.C., F.E. Kuo and M. Prabhu. May 1996. "Assessing the Impact of Environmental Impact Statements on Citizens," *Environmental Impact Assessment Review*, 16(3):171-182.

² Sullivan, W.C., F.E. Kuo and M. Prabhu. July 1997. "Communicating with Citizens: The Power of Photosimulations and Simple Editing." *Environmental Impact Assessment Review*, 17(4):295-310.

EIS Cost and Completion Time Data

EISs

Bonneville Power Administration

Wildlife Mitigation Program DOE/EIS-0246 EPA Rating: EC-2 **Cost:** \$167,000 (\$95,000 Federal, \$72,000 contractor) **Time:** 20 months

Environmental Management

Waste Management Programmatic EIS DOE/EIS-0200 EPA Rating: EC-2 **Cost:** \$35.4 million (\$3.3 million Federal, \$32.1 million contractor) **Time:** 79 months

[**Editor's note:** The Office of Environmental Management estimates that an additional \$30.6 million was expended for Environmental Management Program start-up and ancillary efforts that support other DOE activities in addition to the Waste Management PEIS.]

Savannah River/Environmental Management

River Water System DOE/EIS-0268 EPA Rating: EC-2 **Cost:** \$2.3 million (\$130,000 Federal, \$2,140,000 contractor) **Time:** 11 months

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action	Adequacy of the EIS
LO – Lack of Objections	Category 1 – Adequate
EC – Environmental Concerns EO – Environmental Objections	Category 2 – Insufficient Information
EU – Environmentally Unsatisfactory	Category 3 – Inadequate

(See March 1997 Lessons Learned Quarterly Report for a full explanation of these definitions.)

Editor's Note: See the June 1997 Lessons Learned Quarterly Report for the most recent analysis of EIS and EA cost and time trends.

Cost Data

- For this quarter, the median cost of three EISs was \$2.3 million; the average cost was \$12.6 million.
- Cumulatively, for the 12 months ended June 30, 1997, the median cost for the preparation of 12 EISs for which cost was reported was \$7.6 million; the average cost was \$10.2 million.
- Seven of these 12 EISs were programmatic or site-wide, with median and average costs of \$15.7 million and \$16.3 million, respectively. The five project-specific EISs with cost data had median and average costs of \$1.1 million and \$1.7 million, respectively.

Completion Time Data

- For this quarter, the median completion time of three EISs was 20 months; the average completion time was 37 months.
- Cumulatively, for the 12 months ended June 30, 1997, the median completion time for the preparation of 13 EISs was 26 months; the average completion time was 30 months.
- Seven of these 13 EISs were programmatic or site-wide, with median and average completion times of 30 months and 37 months, respectively. The six project-specific EISs had median and average completion times of 18 and 21 months, respectively.

Other EIS-Related Documents Issued Between April 1 and June 30, 1997

Notices of Intent	DOE/EIS-#	Date
Surplus Plutonium Disposition PEIS	0283	5/22/97 (62 FR 28009)
Sandia National Laboratory SWEIS	0281	5/30/97 (62 FR 29332)
Transmission System Vegetation Management Program EIS	0285	6/16/97 (62 FR 32591)
Records of Decision		
Interim Management of Nuclear Materials at the Savannah River Site	0220	4/11/97 (62 FR 17790; 3rd Supplemental ROD)
Uranium Mill Tailings Remedial Actio Groundwater Project	n 0198	4/28/97 (62 FR 22913)
Sacramento 2004 Power Marketing Program (Central Valley Project)	0232	4/28/97 (62 FR 22934)
Dry Storage Container Systems for t Management of Naval Spent Nuclea Fuel (Navy – Lead Agency)	he 0251 r	5/1/97 (62 FR 23770; 2nd ROD)
Waste Management at the Savannal River Site	n 0217	5/19/97 (62 FR 27241; Supplemental ROD)
Wildlife Mitigation Program, Idaho, Montana, Nevada, Washington, Oreg	0246 gon	6/23/97 (62 FR 32849)
Draft EIS		
Bonneville Power Administration/Lov Valley Power and Light Transmissior System Reinforcement Project, Wyo	ver 0267 n ming	5/29/97

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EA Cost and Completion Time Data

Cost Data

- Total NEPA process cost data were reported for seven of the eight EAs completed during the third quarter of FY 1997. The median cost was \$74,000; the average cost was \$117,000.
- Cumulatively, for the 12 months ended June 30, 1997, the median cost for the preparation of 25 EAs for which cost was reported was \$51,000; the average cost was \$73,000.

Completion Time Data

- For this quarter, the median completion time of eight EAs was nine months; the average completion time was 16 months.
- Cumulatively, for the 12 months ended June 30, 1997, the median completion time for the preparation of 33 EAs for which completion time was reported was six months; the average completion time was 12 months.

EAs

Albuquerque Operations Office/ Environmental Management

No Remedial Action at the Inactive Uraniferous Lignite Ashing Sites, Belfield and Bowman, North Dakota DOE/EA-1206 **Cost:** \$314,000 **Time:** 4 months

Chicago Operations Office/ Environmental Management

Environmental Remediation at Argonne National Laboratory-East, Chicago, Illinois DOE/EA-1165 **Cost:** \$74,000 **Time:** 10 months

Federal Energy Technology Center/ Fossil Energy

Coal-Fueled Diesel Project, Fairbanks, Alaska DOE/EA-1183 **Cost:** \$50,000 **Time:** 8 months

Idaho Operations Office/ Environmental Management

New Borrow Source Site, Idaho National Engineering and Environmental Laboratory, Idaho Falls, Idaho DOE/EA-1083 **Cost:** \$76,000 **Time:** 25 months

Kirtland Area Office/Defense Program

Design, Evaluation, and Test Technologies Center at TA III, Sandia National Laboratory, Albuquerque, New Mexico DOE/EA-1195 **Cost:** \$199,000 **Time:** 54 months

Ohio Field Office/Environmental Management

Disposition of Prehistoric Human Remains, Fernald, Ohio DOE/EA-1134 **Cost:** \$38,000 **Time:** 19 months

Richland Operations Office/ Environmental Management

Relocation and Storage of Sealed Isotopic Heat Sources, Hanford Site, Richland, Washington DOE/EA-1211 **Cost:** \$68,000 **Time:** 4 months

Western Area Power Administration

IXC Fiber Optics Line, McCullough Substation (Nevada) to Liberty Substation (Arizona) DOE/EA-1202 **Time:** 5 months

[Editor's note: The costs of this EA were paid for by the applicant; therefore, cost information does not apply to DOE.]

Litigation Updates (continued from page 13) Constricted Purpose and Need Loses Case for Army Corps of Engineers

On July 14, 1997, based on an overly-constricted definition of purpose and need in the accompanying EIS, the U.S. Court of Appeals for the Seventh Circuit vacated an Army Corps of Engineers permit to construct a dam and reservoir for the City of Marion, Illinois, and a six-county water district. In planning this project, the City envisioned that one reservoir would supply both the City and the water district. In its EIS, the Corps confined the environmental analysis to "single-source" alternatives — i.e., both entities obtaining water from a reservoir. The plaintiffs argued that the actual purpose and need for agency action was broader than the Corps' definition and that there were reasonable alternatives beyond the single reservoir. The court agreed and ruled that the Corps had a "duty under NEPA to exercise a degree of skepticism in dealing with self-serving statements from a prime beneficiary of the project." The court further held that the Corps' constricted definition of purpose and need led to its rejection of otherwise reasonable alternatives, noting that "alternatives might fail abjectly on economic grounds. But the Corps and, more important, the public cannot know what the facts are until the Corps has tested its presumption." (The court further speculated that the Corps' definition of purpose and need might be based on a contract between the City and the water district, but noted that "the public interest in the environment cannot be limited by private agreements.") *Simmons v. U.S. Army Corps of Engineers*, 1997 WL 392717 (7th Cir. 1997). *L*

Cumulative Topical Index to Quarterly Reports on Lessons Learned in the NEPA Process

The following is a topical index for this and all previous editions of the Lessons Learned Quarterly Report. The index will be revised and published annually. If you would like a copy of a particular Quarterly Report, please contact Yardena Mansoor, Office of NEPA Policy and Assistance, at yardena.mansoor@eh.doe.gov or (202) 586-9326.

Key: Primary Topic

secondary topic... Mon Yr/page number(s)

Accident Analyses
consistency in Dec 95/15
guidance Sep 97/7
involved workers Sep 95/12
Administrative Record Mar 97/13; Sep 97/7
Adoption, EA Sep 95/12
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