NEPA

National Environmental Policy Act

LESSONS LEARNED

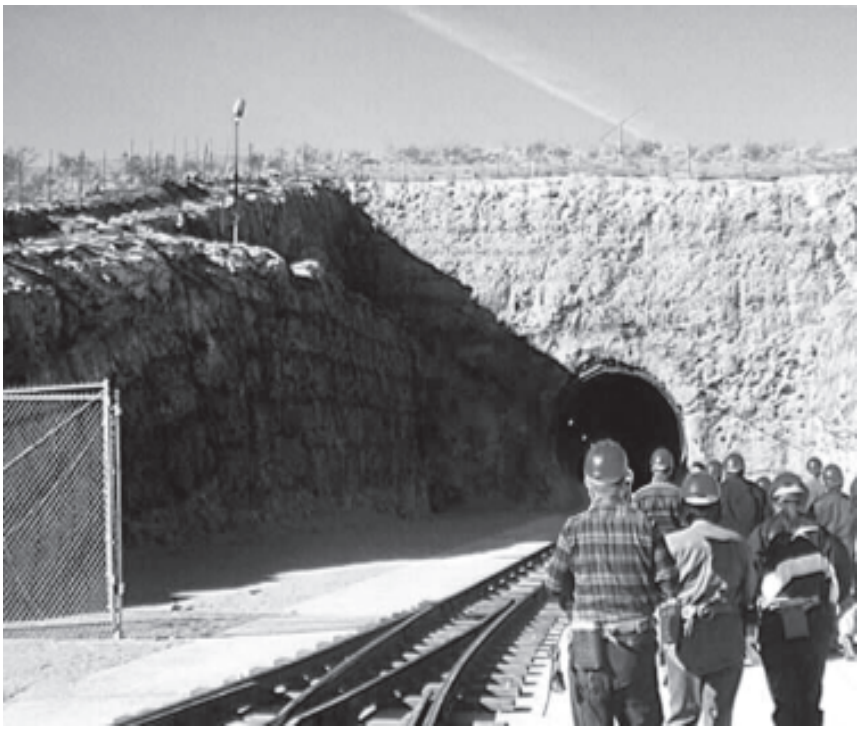
U.S. DEPARTMENT OF ENERGY QUARTERLY REPORT

March 2, 1998, Issue No. 14 For First Quarter FY 1998

Managing Progress on the Repository EIS

How to Move a Mountain

How do you manage preparation of a major EIS that is important to five Program Offices, four Field Offices, and other Federal agencies, not to mention a wide array of stakeholders? How do you address extremely complex and controversial issues for a high-profile, high-priority project without getting bogged down in details? How do you keep a large team focussed on an EIS that is five years in the making for a project that, if approved, would not begin receiving spent nuclear fuel and high-level waste before 2010? How do you get senior management attention when it is needed, to avoid proceeding in the wrong direction?



Tour members approach the entry to the Yucca Mountain Exploratory Studies Facility. The EIS Management Council, along with members and technical advisors of the EIS Preparation Team, visited the site in January while participating in briefings on technical, legal, and policy issues.

Multilevel Management

The Yucca Mountain Site Characterization Office, which faces all of these challenges in preparing the EIS for a geologic repository, is finding that a tiered management approach helps to keep the EIS on track. Three levels of EIS management have been established to obtain policy direction and bring pertinent issues to appropriate decision makers when needed:

- **An interdisciplinary EIS Preparation Team** manages day-to-day issues and consults as needed with a group of senior subject-matter experts within involved organizations.

- **A mid-level Management Council** consisting of representatives of DOE Headquarters Program Office and EH and GC representatives

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Yucca Mountain *(continued from page 1)*

meets regularly on technical and policy issues, and may consult with other agencies, such as the Department of Justice and the Council on Environmental Quality.

- **An Executive Committee**, the senior managers of the cognizant organizations, addresses the most important or sensitive issues, and assures that the EIS reflects highest-level Departmental priorities and policies.

Why Use This Approach?

The Department has applied a multilevel management approach effectively to several EISs that had certain characteristics in common: (1) a proposed project of great importance to the Department, (2) multi-office involvement, (3) timing as an important factor, (4) especially challenging technical and policy issues, and (5) heightened level of controversy.

The Yucca Mountain EIS has similar characteristics. The Yucca Mountain Project is key to determining the future of geologic disposal for the nation's commercial and DOE's spent nuclear fuel and high level wastes. Timely completion of the Yucca Mountain EIS is critical, and demands close coordination with affected Offices on the scope of the EIS. Challenging technical issues require early resolution and involve integrating many scientific and engineering disciplines. On the policy side, the Yucca Mountain Project is governed by the Nuclear Waste Policy Act, which provides direction on the scope of the EIS. In addition to high levels of technical controversy and public concern, the Yucca Mountain Project has also received attention from the international scientific community.

The multilevel approach seems to be working, according to Wendy Dixon, Yucca Mountain Site Characterization Office's Assistant Manager for Environment, Safety and Health and Chair of the Management Council for the EIS.

The Council Comes to the Mountain

In January 1998 the EIS Management Council held its regularly scheduled meeting at the Yucca Mountain Site Characterization Office in Las Vegas and invited DOE Headquarters and Field staff and contractors to an all-day guided tour of the site before the meeting. "The first-hand observations of the tunnel and ongoing experimental activities, and the opportunity to question the lead technical experts in the program, proved to be very valuable to all of us on the tour," said Carol Borgstrom, Director, Office of NEPA Policy and Assistance. "We now have a much better sense of the project and its potential impacts on the surrounding area. I would recommend similar tours for key participants in all major DOE EISs," she said.

After the tour the Council received briefings on the progress of ongoing site characterization and performance assessment activities and addressed current EIS preparation issues. Lake Barrett, Acting Director of the Office of Civilian Radioactive Waste Management, met with the Management Council to discuss the preparation of DOE's "Viability Assessment" and the EIS. Said Wendy Dixon, "We especially value the support we get for this big, difficult NEPA project from our colleagues on the EIS team and from senior management. Obtaining timely input when we need it makes us confident that we will produce a high-quality EIS on schedule."

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Inside *LESSONS LEARNED*

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Carol Borgstrom

Director
Office of NEPA Policy and Assistance

Yucca Mountain

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Next Steps

The Nuclear Waste Policy Act directs the Secretary to determine whether to recommend to the President that the Yucca Mountain Site be developed as a geologic repository. Under the Act, an EIS must accompany such a recommendation. Work to complete the EIS is proceeding in earnest. The draft EIS is scheduled to be issued in July 1999, and the final EIS in August 2000. Concurrent with EIS preparation, the Yucca Mountain Site Characterization Office continues to make steady progress studying the site and in the fall of 1998 expects to issue a report assessing the viability of proceeding with studies and licensing of a repository at Yucca Mountain. Additional information is available at the Yucca Mountain Project Web site at http://www.ymp.gov/.

The EIS Management Council is briefed on regional geology and site topography as it tours the crest of Yucca Mountain.

Be Part of Lessons Learned

We Welcome Contributions

We welcome your contributions to the *Lessons Learned Quarterly Report.* Please contact Yardena Mansoor at yardena.mansoor@eh.doe.gov or phone (202) 586-9326. Draft articles for the next issue are requested by April 30, 1998.

Second Quarter Questionnaires Due April 30

Lessons Learned Questionnaires for NEPA documents completed during the second quarter of fiscal year 1998 (January 1, 1998 to March 31, 1998) should be submitted as soon as possible after document completion, but no later than April 30, 1998. The Lessons Learned Questionnaire is available interactively on the DOE NEPA Web at http://tis.eh.doe.gov/nepa/ under DOE NEPA Process Information.

For Lessons Learned Questionnaire issues, contact Hitesh Nigam at hitesh.nigam@eh.doe.gov, phone (202) 586-0750, or fax (202) 586-7031.

Feedback on LLQR

Do you have a comment or a suggestion? Please submit feedback on the *Lessons Learned Quarterly Report* to: Hitesh Nigam, hitesh.nigam@eh.doe.gov, phone (202) 586-0750, or fax (202) 586-7031.

LLQR Online

Current and past issues of the *Lessons Learned Quarterly Report* are available on the DOE NEPA Web at http://tis.eh.doe.gov/nepa/ under DOE NEPA Process Information.

Richland EA Offers Lessons in Public Involvement and Working with Classified Information

By: Julie K. Turner, *NEPA Document Manager, Richland Operations Office*

In July 1997, the Richland Operations Office, in cooperation with the Tennessee Valley Authority, prepared an EA for Lead Test Assembly Irradiation and Analysis at Watts Bar Nuclear Plant, Tennessee, and Hanford Site, Richland, Washington (DOE/EA-1210). The EA assessed potential environmental impacts associated with proposed tests to confirm the viability of producing tritium in a commercial light water reactor. These tests would involve irradiation of tritium-producing burnable absorber rods at a commercial nuclear power facility and post-irradiation examination of the rods at one or more national laboratories. During preparation of the EA, the document preparation team learned important lessons about public involvement and working with classified information that can be applied to other DOE NEPA documents.

Communication and Public Involvement

The activities evaluated in the EA would be conducted by several organizations in various locations across the United States. Richland Operations Office staff used the *Directory of Potential Stakeholders for Department of Energy Actions under the National Environmental Policy Act* to identify organizations that might be interested in reviewing the EA, in addition to familiar Hanford stakeholders. Richland staff also asked the DOE Program Office (Defense Programs), Field Offices, and the cooperating agency to identify potentially interested parties. Stakeholders identified by this process were notified of DOE's intent to prepare the EA and invited to comment on the draft document.

Of the organizations invited to comment on the draft EA, most did not respond during the public comment period. After a Finding of No Significant Impact was signed, however, the Richland Operations Office received comments from some of these stakeholders and from others who had not previously been identified. The EA team was unaware that these latter stakeholders were interested in the EA, even though several of the stakeholders had been in contact with the Program Office or the cooperating agency.

Based on this experience, we think several approaches could help to identify interested stakeholders more completely:

- **Reorganize or cross-reference the DOE stakeholders directory.** Potential cross-references could include listing by field office, by geographic region, or by topics of concern, so that activities in a particular location could be better correlated with potentially interested stakeholders in that region. Currently, the directory lists stakeholders alphabetically, which does not support this type of correlation.

- **Identify points of contact who have primary responsibility for public involvement for other government agencies that may be affected by DOE activities.** The NEPA Stakeholders Directory identifies public affairs directors for DOE facilities, but not for other Federal agencies. Public affairs directors at other agencies could be asked to identify stakeholders for specific facilities and for information regarding local public concerns.

Protecting Classified Information

The impact analysis was based on unclassified information and deliberately used methods that provided a conservative assessment of the potential impacts from the proposed activities. This approach allowed Richland Operations to issue the EA without a classified appendix and to make the entire document available to the public. Several members of the internal review panel, however, expressed concerns that this approach to protecting classified information resulted in large overestimates of the impacts. An alternative approach would be needed when truly insignificant impacts could not be demonstrated using such a conservative analysis. Such approaches could include:

- using less conservative unclassified assumptions,
- including a classified appendix in the document, or
- preparing a classified EA.

For more information, contact Julie Turner at julie_k_turner@rl.gov, phone (509) 372-4015, or fax (509) 372-4549. LL

EDITOR'S NOTE: *The January 29, 1998, transmittal memorandum for the 9th edition of the* Directory of Potential Stakeholders for Department of Energy Actions under the National Environmental Policy Act *notes that the Office of NEPA Policy and Assistance is converting the Directory to a Microsoft Access database that, among other features, could produce customized reports on a regional basis. The Office will continue to publish the Directory semi-annually.*

DOE Charts Course for Managing TRU Waste

Records of Decision Issued for WIPP SEIS and Waste Management PEIS

The Department has issued two landmark Records of Decision (RODs) that set the course for treatment, storage, and disposal of transuranic (TRU) waste:

- The ROD for the Waste Isolation Pilot Plant (WIPP) Disposal Phase, based on the WIPP Disposal Phase Supplemental EIS (DOE/EIS-0026-FS2; September 1997) (SEIS-II); and
- The ROD for Treatment and Storage of Transuranic Waste, based on analyses in the Waste Management Programmatic EIS (DOE/EIS-0200; May 1997) (WM PEIS TRU).

TRU waste contains alpha particle-emitting radionuclides with atomic numbers greater than that of uranium (92) and half-lives greater than 20 years in concentrations greater than 100 nanocuries per gram of waste.

Together, these two RODs, which were both published in the *Federal Register* on January 23, 1998 (at 63 FR 3623 and 63 FR 3629), give notice of DOE's decisions regarding disposal of TRU waste at WIPP, the minimum requirements for treatment of TRU waste to meet WIPP acceptance criteria, and the locations for preparation and storage of TRU waste before disposal.

WIPP is a mined repository for radioactive waste, the first of its kind in the United States. It is located 2,100 feet below the surface in an ancient salt deposit near Carlsbad, New Mexico. Under the SEIS-II ROD, DOE will use WIPP for disposal of up to 175,600 cubic meters of TRU waste, after preparation to meet WIPP's waste acceptance criteria. Before the site can be opened for disposal, WIPP must still meet compliance requirements of the Environmental Protection Agency (and, for TRU mixed waste, the State of New Mexico).

The WM PEIS TRU ROD is the first ROD based on the WM PEIS, which supports integrated nationwide decision making for DOE's waste management program. The ROD will be followed in due course by RODs for low-level mixed waste, low-level waste, high-level waste, and hazardous waste. Under the WM PEIS TRU ROD, each DOE site that currently has or will generate TRU waste will prepare and store its TRU waste onsite until disposal, except that the Sandia National Laboratory in New Mexico will transfer its TRU waste to the Los Alamos National Laboratory in New Mexico.

For further information regarding the WIPP decision, contact Harold Johnson, NEPA Document Manager and Compliance Officer, Carlsbad Area Office, at johnsoh@wipp.carlsbad.nm.us, phone (505) 234-7349, or fax (505) 234-7061. For further information on the WM PEIS TRU decision, contact Patrice Bubar, Director, Office of Planning and Analysis (EM-35), Office of Environmental Management, at patrice.bubar@em.doe.gov, phone (301) 903-7204, or fax (301) 903-9770. LL

DOE-wide NEPA Contracts Update

In June 1997, the Department awarded three DOE-wide NEPA contracts to teams headed by Halliburton NUS Corporation, Science Applications International Corporation, and Tetra Tech, Incorporated, to support your NEPA documents quickly, effectively, and cost efficiently. Since then, Tetra Tech has acquired Halliburton NUS and now Tetra Tech will propose the combined resources of Tetra Tech, Inc. and Tetra Tech NUS (formerly Halliburton NUS) to support your NEPA documents. To foster competition, an additional award will be made soon. The new awardee will be announced before the meeting of NEPA Compliance Officers later this month. For more information on use of the DOE-wide NEPA contractors, contact Dawn Knepper at dknepper@doeal.gov or (505) 845-6215, forward questions to your NEPA Compliance Officers, or see the next issue of the *Lessons Learned Quarterly Report.*

Since December 1997, the following task has been awarded:

Task Description	NEPA Document Manager	Award Date	Contractor Team
Brookhaven High Flux Beam Reactor EIS	Nand Narain (BNL) narain@bnl.gov, phone (516) 344-5435	12/17/97	Tetra Tech, Inc.

For information on tasks awarded before December 1997, see the *Lessons Learned Quarterly Report*, December 1997, page 13. LL

Early NEPA Review Saves Resources for the Agricultural Research Service

By: John Crew, *Agricultural Research Service, U.S. Department of Agriculture*
Murray Wade, *Energy Division, Oak Ridge National Laboratory*

Incorporation of early environmental review in project planning, rapid assessment of key issues during scoping, and prompt reaction by the proposing agency—all basic tenets of effective NEPA practice—were recently demonstrated by the Agricultural Research Service (ARS) in preparing an EIS for an energy project in New York. The proposed project was to construct and operate up to 18 wind turbines to provide electrical power for an ARS animal disease research facility on Plum Island, located off the North Fork of Long Island. The purpose of the proposed action was to reduce dependency on mainland utilities and save more than $1 million per year in purchased electricity.

Initial studies focused on the feasibility of developing a wind energy system and the associated economics. Recognizing that there would be considerable public interest and concern because the wind turbines would be visible from adjacent Long Island and the neighboring Connecticut shoreline, ARS decided to prepare an EIS and requested assistance from the ORNL (Oak Ridge National Laboratory) NEPA Program in implementing the NEPA process and preparing the necessary documentation. A Notice of Intent to prepare the EIS was published on February 14, 1997 (62 FR 6940), and two scoping meetings were held during April.

The ARS and ORNL team identified and focused its efforts on two issues during the early scoping stages: potential impacts to sensitive ecological receptors and the economic viability of the wind turbine system. The team undertook reconnaissance-level field studies and prepared an early evaluation of potential impacts to resident and migratory birds, including threatened and endangered species. These studies indicated there would be a high probability of significant environmental impacts from birds colliding with the wind turbines. In addition, preliminary economic analyses revealed that substantial costs had not been considered and that alternatives involving combinations of diesel and wind generation appeared to be more economically attractive.

Given the potential for significant adverse environmental impacts and uncertainties about economic feasibility, ARS decided to cancel the project and the EIS in May 1997.

Because NEPA was initiated early, ARS was able to protect sensitive ecological resources, meet the electrical energy needs of a remote research facility, and save the costs of an EIS.

ARS further determined that other actions could be taken to achieve some, if not all, of their initial objectives without constructing new generating capacity. These actions included, for example, using existing emergency diesel-fired generators (or replacing these generators with more efficient units) for electric peak load shaving and continuing other energy conservation measures.

This case illustrates how early application of the NEPA process can help an agency to avoid potentially significant adverse impacts and identify cost-effective alternatives. Because the NEPA process was started early, ARS could protect sensitive ecological resources on Plum Island while meeting the electrical energy needs of a remote research facility. Project proponents avoided major design and construction costs and also saved about 75 percent of the funds earmarked for the EIS.

For more information, contact John Crew at jcrew@ars.usda.gov, phone (215) 233-6549, or fax (215) 233-6558.

Need Technical Assistance? Try the Core Technical Group

When you need supplemental expertise in a technical area, one option is the Core Technical Group (CTG), sponsored jointly by Defense Programs (DP) and Environmental Management (EM). CTG provides analytical support in more than 58 technical areas, from accelerators to waste management, including NEPA compliance. Since its inception in July 1996, the CTG has provided support for about 80 projects throughout DOE, on diverse topics such as nuclear criticality, fire protection, a safety analysis report, and systems engineering for a local area network upgrade.

The CTG is composed of about 450 DOE employees who participate with the approval of their supervisors. The Group includes members who have participated in a peer review of environmental impact assessment methodologies. For the Los Alamos National Laboratory Site-wide Environmental Impact Statement (SWEIS), CTG members helped to develop analysis methodologies for accidents, radiological impacts, seismology and geology, surface and ground water, environmental justice, and transportation impacts. CTG members similarly will review methodologies for the ongoing Sandia National Laboratory SWEIS.

The CTG is a resource for improving the quality of technical support while reducing the overall cost. Potential users should visit the CTG Web site at http://www3.dp.doe.gov/ctg/ctg.htm, which provides information about the group, a users guide, the "service request form," and a full list of subjects for which the CTG provides expertise.

The CTG Coordinator for DP is Xavier Ascanio, (301) 903-5697; and for EM, the CTG Coordinator is John Kaysak, (202) 586-0108.

For more information, contact the CTG Service Desk at ctg@dp.doe.gov, phone (888) 439-5883 or (301) 903-8525, or fax (301) 903-3414.

Office of NEPA Policy and Assistance Guidance

The NEPA Office recently issued guidance on several topics. For additional information, please consult the appropriate points of contact. Guidance marked with an asterisk (*) may be printed or downloaded from http://tis-nt.eh.doe.gov/nepa/ under DOE NEPA tools.

Department of the Interior Review Process for NEPA Reviews (December 8, 1997)
contact: Stephen Simpson at stephen.simpson@eh.doe.gov, phone (202) 586-0125

Guidance on National Environmental Policy Act Review for Corrective Actions under the Resource Conservation and Recovery Act (December 23, 1997)*
contact: Carolyn Osborne at carolyn.osborne@eh.doe.gov, phone (202) 586-4596

Guidance on National Environmental Policy Act Categorical Exclusion Determinations (January 16, 1998)*
contact: Carolyn Osborne at carolyn.osborne@eh.doe.gov, phone (202) 586-4596

Directory of Potential Stakeholders for Department of Energy Actions under the National Environmental Policy Act, 9th Edition (January 29, 1998)*
contact: Stephen Simpson at stephen.simpson@eh.doe.gov, phone (202) 586-0125

Guidance on Dates for NEPA Documents (February 23, 1998)*
contact: Joe Gearo at joseph.gearo@eh.doe.gov, phone (202) 586-7683

Environmental Protection Agency Proposes Changes to Voluntary EIS Policy

The Environmental Protection Agency (EPA) is proposing to change its 1974 Policy for Voluntary Environmental Impact Statements to a broader Voluntary NEPA Compliance Policy. The proposed policy changes (62 FR 63334, November 28, 1997) would reflect EPA's obligations under NEPA as defined by Congress and the courts and ensure that EPA's voluntary NEPA compliance practices are consistent with the Council on Environmental Quality's NEPA regulations.

Many EPA Actions are Exempt from NEPA Review

EPA is legally required to comply with the procedural requirements of NEPA for its research and development activities, facilities construction, wastewater treatment construction grants under the Clean Water Act, and EPA-issued National Pollutant Discharge Elimination System permits for new sources. EPA is exempted by statute for actions taken under the Clean Air Act and for most other Clean Water Act programs. EPA also is exempted from the procedural requirements of environmental laws, including NEPA, for Comprehensive Environmental Response, Compensation, and Liability Act response actions. For other programs, courts have consistently recognized that EPA procedures or environmental reviews under enabling legislation are functionally equivalent to the NEPA process and, thus, exempt from the procedural requirements under NEPA. Nevertheless, it has been long-standing EPA policy to prepare EISs voluntarily for some actions.

New Policy Would Broaden EPA's Voluntary NEPA Reviews

The existing policy specifies that a voluntary analysis be documented in an EIS and does not contemplate that an EA resulting in a FONSI might be appropriate for some actions. Under the new policy, EPA would prepare EAs and issue FONSIs when appropriate, thereby eliminating unnecessary analysis.

Also, under the new policy EPA would consider voluntary NEPA review for actions involving: cumulative cross-media or ecosystem impacts; environmental justice issues; issues that involve other Federal agencies that are addressing issues under the NEPA process; special resources such as endangered species or cultural resources; and public health risk.

For specific rulemaking actions, EPA would continue to meet the fundamental NEPA requirements through its Regulatory Development Process, which includes analysis and public participation elements that would make separate NEPA documentation redundant, unless EPA determines that NEPA documentation would be beneficial. LL

Anticipating the Discovery of Unknown Waste

Sample Language for Inclusion in NEPA Documents

For proposed actions that involve siting alternatives, it may be appropriate to include language in the NEPA document to address the possible presence of unknown wastes or other hazardous or radioactive material that may be encountered during project-related construction activities, such as excavation.

Language similar to the following paragraph, based on the draft EIS for the Accelerator for the Production of Tritium at Savannah River (DOE/EIS-0270), may be considered:

> *The preferred and the alternative sites for the proposed action are not known to contain any hazardous, toxic, and/or radioactive material. Nevertheless, the potential exists that construction-related activities such as excavation could result in the discovery of previously unknown hazardous, toxic, and/or radioactive material. If such material were discovered, DOE would remove and dispose of such material in accordance with all applicable laws and regulations.* [If applicable, the following sentence could be included: *The Mitigation Action Plan that will be prepared after the ROD for this document will provide more specific information on the process and procedures that would be followed.*] LL

DOE Planning Summaries Provide NEPA Forecasts

The Office of NEPA Policy and Assistance has begun its review of the 1998 Annual NEPA Planning Summaries. As required under DOE O 451.1A (NEPA Compliance Program), each DOE Program and Field Office prepares a summary each year that identifies EAs that the Office expects to prepare in the next 12 months and EISs in the next 24 months, and includes corresponding cost estimates and schedules. The Summary also describes the status of ongoing NEPA compliance activities.

In addition, every three years (starting with 1995), the Summary is to include an evaluation of whether a site-wide EIS would facilitate future NEPA compliance efforts. The Annual NEPA Planning Summary is intended to help DOE Program and Field Offices plan and allocate resources needed for NEPA reviews, and, by making the Summary publicly available, assist the public in planning for its participation in the DOE NEPA process.

DOE Offices have demonstrated continued improvement in anticipating NEPA reviews since preparation of Summaries began in 1995. Most of the Department's EISs and EAs prepared in 1997 had been forecast in the Annual Planning Summaries. This finding suggests that Field and Program Offices have the information needed to begin planning a NEPA review early, which often contributes to a successful NEPA process.

For more information on the Annual Planning Summaries, please contact Jim Sanderson at jim.sanderson@eh.doe.gov, phone (202) 586-1402, or fax (202) 586-7031.

Recent EIS Milestones

Notice of Intent

Production of Tritium in a Commercial Light Water Reactor (DOE/EIS-0288) (63 FR 3097, January 21, 1998).

Records of Decision

Waste Isolation Pilot Plant Disposal Phase (DOE/EIS-0026-S2) (63 FR 3623, January 23, 1998).

Waste Management Programmatic EIS, Treatment and Storage of Transuranic Waste (DOE/EIS-0200) (63 FR 3629, January 23, 1998).

Disposal of the Defueled S3G and D1G Prototype Reactor Plants, Office of Naval Reactors (DOE/EIS-0274) (63 FR 4235, January 28, 1998).

Supplement Analysis

Foreign Research Reactor Spent Nuclear Fuel Transportation along other than the Representative Route from Concord Naval Weapons Station to Idaho National Engineering and Environmental Laboratory (DOE/EIS-0218-SA1) (January 1998; no further NEPA review required).

NAEP Seeks to Identify Accepted Methods of NEPA Practice

The National Association of Environmental Professionals (NAEP) *(Lessons Learned Quarterly Report, December 2, 1997, page 8)* has formed a Tools and Techniques NEPA Practice Committee. Part of NAEP's NEPA Working Group, this new committee is chartered to identify and promote Accepted Methods of Professional Practice for implementing NEPA requirements. Emphasis is on tools and techniques to assist in decision making, streamline the NEPA compliance process, and promote effective and integrated environmental planning.

The NAEP is currently accepting proposals for candidate Accepted Methods of Professional Practice. Under the committee's adoption process, proposed methods will undergo a national peer review, a public comment period, and a formal endorsement process. Currently, candidates include methods for applying the purpose and need statement to the NEPA scoping process and for determining: when private actions are subject to NEPA, the appropriate scope of a programmatic EIS, and how wetland issues should be addressed in NEPA analyses.

The Tools and Techniques Committee seeks a diverse, interdisciplinary membership and welcomes new members. NEPA practitioners interested in joining the Committee are encouraged to contact Fred March (NEPA Working Group Chairman) at fmarch@sandia.gov, phone (505) 844-7424; or Chuck Eccleston (Tools and Techniques Committee Chairman) at charles_h_eccleston@rl.gov, phone (509) 376-9364.

Additional information is available at the Tools and Techniques Committee's Web site at http://www.naep.org/tnt/.

ER's NCO Describes His Role

By: Clarence Hickey, *NEPA Compliance Officer, Office of Energy Research*

Clarence Hickey, ER NCO

As the NEPA Compliance Officer (NCO) for the Office of Energy Research (ER), I have numerous responsibilities, including those listed in the DOE NEPA Order (DOE O 451.1A), my own performance standards, and those protean government functions called "other duties as assigned." But according to my colleagues and customers, my most important function is as a facilitator of NEPA communications throughout the ER complex.

The ER complex consists of ER Headquarters (HQ), four Operations Offices (CH, OAK, OR, RL), the Site/Area/Group Offices that administer ER-sponsored activities, and the National Laboratories that conduct scientific research on behalf of ER. I also serve as the ER complex NEPA liaison to the other Program Offices (such as EH and GC). Keeping abreast of ER NEPA activities across the complex (as well as other NEPA developments across DOE) is a time-consuming job—but well worth the effort. Good communication, I believe, is the key to success.

Before the 1994 delegation of EA approval authority to Field Offices, it was easier for me to stay abreast of ER NEPA documentation because most NEPA documents and related correspondence were routed through ER HQ. I continue to support delegation, but now I review fewer NEPA documents. Maintaining an operational awareness of NEPA implementation and the ability to assist the ER complex requires me to continuously communicate and coordinate with the Field Offices and laboratories.

Indeed, I serve as the ER NEPA communications facilitator, promoting communication via a variety of media and methods, from the old-fashioned, low-tech handwritten memo method to the World Wide Web and other sophisticated telecommunications. These are described in detail in the Annual NEPA Program Summary I prepare for ER, which can be found on the ER NEPA Compliance Web site (http://www.er.doe.gov/production/er-80/er-83/nepacomp.html). The main NEPA communications vehicles ER uses are summarized as follows.

Monthly NCO Conference Calls

In 1996, I began coordinating monthly NCO conference calls for all the Operations Office NCOs associated with ER activities. The calls help us to keep each other up to date on ER's NEPA activities and those throughout the DOE complex that affect ER. We have also used these calls to discuss regulatory changes and to promote consistent procedures throughout the ER community.

Semiannual NEPA Workshops

Approximately twice a year since 1991, ER HQ has sponsored Environment, Safety and Health (ES&H) Coordination Meetings attended by representatives from the entire ER complex and its support contractors. I have sponsored a series of ER NEPA Workshops at these meetings. The ES&H Coordination Meetings and the NEPA Workshops provide forums for exchanging information, discussing and resolving ER's NEPA issues, and continuously improving its NEPA products and services. A team approach to problem identification and resolution has resulted in many joint initiatives among ER organizations that have improved efficiency, saved money, and led to new approaches to implementing NEPA's procedural provisions. Summaries of each ES&H Coordination Meeting and NEPA Workshop are distributed to all participants.

ER NCO Communication Series

An ER NCO Communication Series was begun in 1992 to archive guidance, procedures, lessons-learned studies, and other NEPA-related documents of broad interest to ER and its field elements. Many of these products result from workgroups commissioned by the ER NEPA Workshops. Typically, two to five ER NCO Communications are issued each year. Topics have included categorical exclusions, an ER-developed environmental assessment training course, an EA training manual, and the ER NCO Quality Awards. NCO Communications are listed, and some contained, on the ER NEPA Web site.

ER NCO Quality Awards Program

In 1994, ER initiated a NEPA Quality Awards Program to recognize the achievements of the ER community in improving the NEPA process and in achieving the goals of the Act. The criteria for an award are in ER NCO Communication No. 96-01. In addition to recognizing achievement, the award program communicates what ER

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***Note:** The NEPA Compliance Officers will meet in Washington, D.C., in late March, to discuss their role.*

NEPA Process Game Enlivens Richland's Training

Participants in Richland Operations Office's training class enjoying the NEPA Process game.

At the Richland Operations Office, which oversees the Hanford Site, trainers use a fast-paced, competitive board game as part of their NEPA training program. Participants have reported that they enjoy the game at several levels: while learning about the DOE NEPA process, they also discover the value of cooperative problem-solving.

The game, inspired in part by the French card game *Mille Bourne,* is played by two teams of at least three players each. Players draw and discard "NEPA Milestone" cards with the objective of placing five cards in the correct sequence on the board (define the project and conduct scoping, identify the affected environment and impacts, perform analysis, complete internal review, and obtain DOE approvals). At various stages of the game, a team plays eight general and Hanford-specific *Environmental Issue* cards (e.g., air quality, cultural resources, threatened and endangered species, and the Hanford Reach Study Area) that the opposing team must "resolve" by playing the corresponding *Consultation* cards (e.g., EPA, State Department of Health, State Historic Preservation Officer, U.S. Fish and Wildlife Service, and National Park Service).

The game includes *Data Collection, Document Preparation,* and *Document Review* cards.

Team members can share information and strategize within their own team but not with members of the opposing team. The game's instruction sheet is designed so that players must seek "regulatory interpretation." The team that completes "the NEPA process" first—without omitting any step—wins the game.

Often, the quality of communication within the team makes the difference.

The game was originally developed in 1994 (as part of Richland Operations Office's 16-hour Hanford DOE NEPA Process Training Class) by Dr. Leslie Wildesen of Environmental Training and Consulting International, Inc. (ETCI), Tanya Sorenson (formerly of the Quality Training and Resource Center at Hanford), and Kim Welsch, Waste Management Hanford Company. According to the developers, the underlying objective of the game is to illustrate some of the group dynamics that pervade real-life NEPA projects, the interdependency that group actions have on completing the NEPA process, and the personal relations factors that can cause delays in project implementation. Often, it is the quality of communication within a team that makes the difference in how quickly the game is "won."

For more information, contact Dr. Leslie Wildesen at etcidenver@aol.com or (303) 321-3575 or Kim Welsch at kim_r_welsch@rl.gov or (509) 376-4373.

ER's NCO Role *(cont'd. from page 10)*

considers important concerning NEPA implementation and the uses of NEPA in support of ER programs. Dr. Martha Krebs, Director of ER, has presented the annual award at ES&H Coordination Meetings.

NEPA Program Summaries

Each year, I prepare an Annual Program Summary of ER's NEPA activities for distribution throughout ER and DOE. The Program Summary provides information, expresses concerns, identifies successes, and monitors outcomes of ER's NEPA program. It supports the ER Strategic Plan and encourages the environmental stewardship of the research, scientific community, facilities, and institutions sponsored by ER.

Visits to ER's Sites and Facilities

In order to gain familiarity with environmental conditions and issues and to meet and talk with my field colleagues, I use all legitimate opportunities to personally visit ER field sites. This helps to increase the effectiveness of the ER NEPA program, improves communications, and helps me to coordinate the development of guidance and training materials. During 1995 and 1996, for example, I visited eight sites, some in conjunction with a NEPA training course I offered to the Operations Offices, some in conjunction with EH's NEPA meetings, and others as a part of routine business. Regular, in-person meetings at field locations are essential to the smooth functioning of the ER NEPA program.

For more information, contact Clarence Hickey at clarence.hickey@oer.doe.gov or (301) 903-2314.

Transitions

Dave Dossett Retires

Dave Dossett retired this past December from the Southwestern Power Authority, where he served for two and one-half years as the NEPA Compliance Officer. In addition to working for DOE, Dave's 27 years of Federal service included positions with the Soil Conservation Service, Bureau of Land Management, Office of Surface Mining, and the U.S. Army as a civilian with responsibility for all Army environmental compliance in Alaska.

Ben Underwood Moves to Private Sector

Ben Underwood, who for six years served as lead NEPA attorney in the DOE Bonneville Power Administration's Office of General Counsel, has left Federal employment to specialize in NEPA consulting. Ben had earlier worked for four years at DOE Headquarters in the Office of General Counsel, litigating numerous environmental cases. Ben continues to work with BPA as a consultant. He may be reached at nepa@bellsouth.net or phone (803) 577-6100. LL

Needs Assessment for NEPA Training Underway

Working in partnership with the DOE National Environmental Training Office (NETO) ("National Environmental Training Office Established at Savannah River Site," *Lessons Learned Quarterly Report,* December 1997, page 10) and the Defense Programs NCO, the Office of NEPA Policy and Assistance has asked NCOs to help assess the need for any further DOE-specific NEPA training curricula for DOE-wide use. NCOs have been asked to evaluate responses to questionnaires from NEPA Document Managers and other NEPA contacts in their offices and to transmit responses and their evaluations to NETO by March 20, 1998. Results will be discussed at a meeting of NCOs at the end of the month. LL

Training Opportunities

Environmental Impact Statements: Fact or Fiction
March 24-25, 1998
Rutgers University—New Brunswick, New Jersey
Fee: before March 24—$365; after March 24—$399; multiple registrations—$350 each
For information, call (732) 932-9271; or e-mail ocpe@aesop.rutgers.edu

New Advances in Ecological Risk Assessment
March 30-April 2,1998
Richard Di Giulio, Duke University; Benjamin Parkhurst and William Warren-Hicks, Cadmus Group Inc.
Duke University—Durham, North Carolina
Fee: $850
For information, call (919) 613-8082; or on the Web, www.env.duke.edu

Making the NEPA Process More Efficient: Scoping and Public Participation
April15-17, 1998
Ray Clark, CEQ, facilitator
Duke University, Nicholas School of the Environment—Durham, North Carolina
Fee: $595
For information, call (919) 613-8082; or on the Web, www.env.duke.edu

Wetlands Laws and Regulations
April 16, 1998
Rutgers University—New Brunswick, New Jersey
Fee: before April 3—$195; after April 3—$225; multiple registrations—$175 each
For information, call (732) 932-9271; or e-mail ocpe@aesop.rutgers.edu

National Conference on Environmental Decision Making
May 3-6, 1998
University of Knoxville—Knoxville, Tennessee
Fee: before April 1—$250; after April 1—$300
For information, call (423) 974-0250; e-mail utconferences@gateway.ce.utk.edu; or on the Web, www.ncedr.org

Current and Emerging Issues in Managing the NEPA Process
May 6-8, 1998
Ray Clark and Dinah Bear, CEQ, and others
Duke University, Nicholas School of the Environment—Durham, North Carolina
Fee: $595
For information, call (919) 613-8082; or on the Web, www.env.duke.edu

The NEPA Toolbox©: Essentials for New Practitioners
May 11-12, 1998

Cumulative Impacts Analysis
May 13-14, 1998
Dr. Leslie E. Wildesen
Environmental Training & Consulting International Inc.—Denver, Colorado
Fee: before April 27—$695 each course or $1,095 for both; after April 27—$750 each or $1,195 for both
For information, call (301) 321-3575; or e-mail etcidenver@aol.com

Cumulative Effects Assessment in the NEPA Process
May 20-22, 1998
Dr. Larry Canter, University of Oklahoma, facilitator
Duke University, Nicholas School of the Environment—Durham, North Carolina
Fee: $595
For information, call (919) 613-8082; or on the Web, www.env.duke.edu

Litigation Updates

By: Stephen Simpson, *Office of NEPA Policy and Assistance*

DOE Wins Challenge to Sale of Naval Petroleum Reserve Number 1

DOE recently won a lawsuit concerning the sale of Naval Petroleum Reserve Number 1 (NPR-1) only a few days after the complaint was filed. *(See related article in the Lessons Learned Quarterly Report, December 1, 1997, page 1.)* On January 29, 1998, an Indian Tribe, a tribal member, the Sierra Club, and the Southwest Center for Biological Diversity sued DOE, alleging that the sale would violate NEPA, the Endangered Species Act, and several Federal historic preservation statutes, and requested that the closing of the sale of NPR-1 to Occidental of Elk Hills, Inc., scheduled for February 5, 1998, be enjoined.

According to the complaint, the Supplemental Environmental Impact Statement (SEIS) prepared for the sale: inadequately described the affected environment, especially prehistoric archaeological resources; inadequately discussed the environmental impacts of the alternatives, especially concerning cultural resources, threatened, endangered, and rare species, and cumulative impacts; did not analyze a reasonable range of alternatives and did not have a "proper" no-action alternative. Further, the complaint alleged that DOE failed to prepare a Supplement to the SEIS (or a Supplement Analysis) to analyze the potential increase in production as a result of the sale to Occidental Petroleum, and that the analysis of mitigation measures in the SEIS was based on a Programmatic Agreement and a Cultural Resources Management Plan that were not yet complete.

The judge dismissed the NEPA and historic preservation claims at oral argument and stated in a written opinion on February 3, 1998, that, through informal consultation with appropriate oversight agencies and protection of the environment by continuing application of relevant federal laws, DOE had complied with the law and the environment would continue to be protected after the sale. The U.S. Court of Appeals for the Ninth Circuit denied the plaintiffs' request for an emergency injunction on February 4, and the closing of the sale of NPR-1 was completed as scheduled on February 5. *Tinoqui-Chalola Council of Kitanemuk and Yowlumne Indians, Southwest Center for Biological Diversity, Sierra Club, and Delia Dominguez v. United States Department of Energy*, No. CV-F-98-5100 OWW DLB (D.E.D. Calif. Feb. 3, 1998).

NRDC Files Contempt Motion, Asks for Fines and Withdrawal of Recent RODs

In the continuing litigation over the Stockpile Stewardship and Management Programmatic Environmental Impact Statement (SSM PEIS) and the need for an Environmental Restoration and Waste Management Programmatic Environmental Impact Statement (ERWM PEIS), the Natural Resources Defense Council (NRDC), on behalf of itself and its 38 co-plaintiffs, filed a motion on January 23, 1998, raising the stakes for the Department. *(See related article in the Lessons Learned Quarterly Report, December 1, 1997, page 17.)* The motion asks the court to hold DOE in contempt for failing to issue an ERWM PEIS in alleged violation of the Stipulation and Order of Dismissal in *Natural Resources Defense Council v. Watkins,* No. 89-1835 SS (D.D.C. Oct. 22, 1990). The plaintiffs request that the court impose four penalties:

1. withdrawal of the recent Records of Decision for the treatment, storage, and disposal of transuranic waste (because DOE allegedly did not consider environmental restoration waste in reaching those decisions);
2. a fine of $5,475,000 to a fund for public monitoring of nuclear weapons facilities cleanup for DOE's failure to comply with the October 1990 Stipulation and Order;
3. a fine of $5,000 per day until DOE commits to a schedule for completing an ERWM PEIS, and, beginning a year after the court's decision on this request, an additional $5,000 per day until the PEIS is completed—with fines going to the public monitoring fund; and
4. payment of the plaintiffs' costs in monitoring and enforcing the Stipulation.

In requesting this relief, the plaintiffs dropped an earlier request that the Secretary and the Assistant Secretaries for Environment, Safety and Health and Environmental Management be imprisoned until DOE pays the fine and commits to a binding schedule for an ERWM PEIS. DOE submitted its reply to the motion on February 12, 1998. DOE also is preparing a reply to the plaintiffs' motion to amend their complaint by withdrawing the issues related to the adequacy of the SSM PEIS and substituting claims that DOE should prepare a supplemental SSM PEIS based on significant new information concerning (1) the environmental impacts of reasonably foreseeable

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DOE Cases *(continued)*

experiments at the National Ignition Facility that will use extremely toxic materials such as lithium hydroxide, plutonium-239, and uranium-232, and (2) DOE's plans to expand the plutonium pit production program at the Los Alamos National Laboratory to include a number of facilities that are deteriorating or otherwise suffering from serious safety and security deficiencies.

At a hearing on February 20, 1998, on the contempt charges, Judge Sporkin deferred a decision until either holding a trial (which he scheduled to start October 15, 1998) or receiving recommendations from a special master. The judge asked the parties to advise him of which process they prefer.

Shipment of Waste Generates Lawsuit Against DOE, Other Agencies

On February 2, 1998, fishermen from the west coast of Puerto Rico, several organizations of Puerto Rican fishermen, and other Puerto Rican public-interest organizations sued DOE in the United States District Court for the District of Puerto Rico challenging the shipment of high-level radioactive waste through the Mona Passage of Puerto Rico and the Panama Canal on its way from France to Japan. (In addition to DOE, co-defendants include the Department of State, the United States Coast Guard, and the companies involved in the treatment and transport of the waste.) The high-level waste results from companies in France reprocessing spent nuclear fuel from reactors in Japan. The resulting plutonium and uranium are then shipped back to Japan for use as fuel. The vitrified high-level waste is shipped to Japan for storage.

The plaintiffs allege, in addition to violations of the Atomic Energy Act and the Nuclear Non-Proliferation Act, that the decision of DOE and the State Department to permit the shipment of the waste is a major federal action under NEPA and that the shipment would have the potential for significant impacts on the quality of the human environment. They claim that DOE and the State Department have violated NEPA by allowing transportation of the nuclear waste material without preparing an EIS. The plaintiffs requested a temporary restraining order to halt the shipment pending a hearing on their request for a preliminary injunction to prevent the shipment from proceeding. The plaintiffs then withdrew their motion for a temporary restraining order and the court refused to issue a preliminary injunction to stop the ship because it had already left United States territorial waters.

Another Case of Interest

Scope of Alternatives Adequate for Brooklyn Courthouse EIS

The United States District Court for the Eastern District of New York recently refused to enjoin construction of a proposed new Federal courthouse in Brooklyn, ruling that the EIS prepared by the joint lead agencies (the General Services Administration and the U.S. Postal Service) was adequate. (Part of the new courthouse would be in the Historic Post Office in Brooklyn.) The plaintiffs alleged several inadequacies in the EIS, including the scope of reasonable alternatives and improper segmentation from another project involving the Central Islip courthouse.

The lead agencies limited their analysis of alternatives in the EIS to the preferred alternative, the no action alternative, and two design alternatives, after rejecting thirteen alternative sites as inadequate to meet their purpose and need. Upon challenge by the plaintiffs, the court ruled that a process of screening alternative sites to identify the ones to fully analyze is rational and sufficient to meet NEPA requirements. The court also rejected the plaintiffs' challenges based on segmentation, ruling that the Brooklyn courthouse was on a different timetable, responded to a separate need, and was fifty miles away from the Central Islip courthouse, such that "common geography" was not present. The two courthouses were independently justified and were not connected, cumulative, or similar actions requiring NEPA review in the same EIS (40 CFR 1508.25).

The court disagreed with the plaintiffs on two other major issues. Plaintiffs argued that it was improper for the EIS to rely on traffic mitigation measures within the sole jurisdiction of the New York City Department of Transportation. The court ruled that the lead agencies were permitted, under Supreme Court precedent, to prepare an EIS that discusses possible mitigation measures but leaves the detailed plans to a later stage, particularly where the adoption of those measures is within the control of the local government. Plaintiffs also contended that the solicitation of a demolition contractor before issuance of the Final EIS and preparation of conceptual design drawings before issuance of the Record of Decision were improper interim actions. The court found, however, that merely using conceptual designs or requesting potential contractors to identify themselves neither impacted the environment nor limited the lead agencies' choices, noting that the agencies could not have evaluated the environmental impacts of the proposed project without conceptual designs. *Concord Village Owners v. Barram*, 1997 U.S.Dist. LEXIS 10773 (E.D.N.Y. 1997).

What Worked and Didn't Work in the NEPA Process

To foster continuing improvement of the Department's NEPA Compliance Program, DOE Order 451.1A 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 October 1 and December 31, 1997. Comments and lessons learned on the following topics were submitted by questionnaire respondents.

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.

Scoping—What Worked

- Adaptive meeting formats. *We had a very large turnout at our open house meeting and several people expressed concern that they would not be able to make public statements. So we changed the format to a sit-down meeting with a few presentations and a long period of questions and comments from the audience.*

Data Collection/Analysis—What Worked

- Independent technical review. *To respond to challenges to our data, we hired an independent consultant to review the data for technical adequacy.*

Data Collection/Analysis—What Didn't Work

- Timing of detailed design. *We thought we had a Catch-22 in that the other involved agencies did not want to proceed with detailed design and siting analysis before the NEPA process was complete. However, upon closer examination, we agreed that this information was not needed to assess site-specific impacts.*

Factors that Facilitated Timely Completion of Documents

- Use of in-house forces. *We found that using our own laboratory resources to perform computer analyses and compile the document was more efficient than hiring a contractor.*
- On-site manager. *Having the NEPA Document Manager on site facilitated timely completion of the EA.*
- Planning ahead. *By beginning the NEPA process early, the proposed project start date was not impacted.*
- Electronic transfer of review documents.

Factors that Inhibited Timely Completion of Documents

- Changes in project design. *Numerous revisions and re-analysis of potential impacts were necessary throughout the NEPA process because of changes in the project design. Finally, it was decided to pursue a different proposed action, requiring another round of revisions and re-analysis.*
- Incorporating late comments. *We had many comments that continued after the "close" of the comment period. The special analysis required as a result pushed our completion date out several months.*
- Changing points-of-contact. *The consultant's point-of-contact changed three different times, and we had to bring each one up to speed.*
- Controversy. *Constant misinformation, misunderstandings, and lack of trust among members of the sponsoring agency and animosity between two participating Tribes necessitated much more in-depth public involvement than normal for an EA.*
- Last-minute review. *After a four-week review period, reviewers waited until the last minute to express questions and comments.*
- Incompatible software. *The support contractor did not use the specified word processing software, and delays occurred because the document had to be converted to the appropriate format.*

Factors that Facilitated Effective Teamwork

- An excellent writer/editor.
- Good communication.

Factors that Inhibited Effective Teamwork

- Untimely communication. *Changes were not always communicated to the NEPA team in a timely fashion.*
- Using inappropriate writing style. *The technical people from the consulting firm had a hard time writing the EA at the layman level that we wanted.*
- Non-cooperation. *Another Federal agency responsible for remedial work was not forthcoming with information to support the NEPA process.*

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NEPA Process *(continued)*

Public Reactions to the NEPA Process

- We received no comments from the surrounding community, and we believe it was primarily because of the effective public relations and community information effort that this facility has practiced for many years.
- The NEPA process helped participants get better information about the project and about their choices.
- Stakeholders that were contacted appreciated DOE's concern.

Agency Planning and Decision Making

- Basically, NEPA has not been part of project planning. The NEPA staff need to become involved in the project very early and stay involved.
- It took considerably more money to complete a good NEPA document than we originally thought. A lot of the cost involved re-educating the three different consultant points-of-contact.

Enhancement/Protection of the Environment

- The NEPA process minimized impacts to endangered species and floodplains/wetlands.
- A bald eagle nest was carefully monitored during the project implementation.

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 meaning "highly effective."

Six of the twelve respondents found the NEPA process effective; of those six, four found the process highly effective, indicating that it brought out important issues and provided a means for reducing adverse environmental impacts. LL

EIS-related Documents Issued Between Oct.1 and Dec. 31, 1997

Notices of Intent	DOE/EIS#	Date
Hanford Solid (Radioactive and Hazardous) Waste Program	DOE/EIS-0286	10/27/97 (61 FR 55615)
Jacksonville Electric Authority Circulating Fluidized Bed Combustor Project, Jacksonville, FL	DOE/EIS-0289	11/13/97 (62 FR 60889)
Advanced Mixed Waste Treatment Project, Idaho National Engineering and Environmental Laboratory	DOE/EIS-0290	11/20/97 (62 FR 62025)
High Flux Beam Reactor Transition Project at the Brookhaven National Laboratory, Upton, NY	DOE/EIS-0291	11/24/97 (62 FR 62572)
Draft EISs		
Programmatic EIS for the Long-term Management and Use of Depleted Uranium Hexaflouride Resources at Several Geographic Locations	DOE/EIS-0269	11/97
Accelerator Production of Tritium at the Savannah River Site	DOE/EIS-0270	11/97
Management of Certain Plutonium Residues and Scrub Alloy Stored at the Rocky Flats Environmental Technology Site, Rocky Flats, CO	DOE/EIS-0277	11/97
Records of Decision		
Supplemental EIS/Program Environmental Interim Report for Sale of the Naval Petroleum Reserve No. 1 at Elk Hills, CA	DOE/EIS-0158-S2	12/19/97 (62 FR 66609)
Nez-Perce Tribal Hatchery Project	DOE/EIS-0213	10/21/97 (62 FR 54617)
Interim Management of Nuclear Materials at the Savannah River Site *(4th Supplemental ROD)*	DOE/EIS-0220	11/14/97 (62 FR 61099)
Navajo Transmission Project, Arizona, New Mexico, Nevada	DOE/EIS-0231	10/31/97 (62 FR 58966)
Shutdown of the River Water System at the Savannah River Site *(Record of Decision issued on 12/23/97)*	DOE/EIS-0268	1/28/98 (63 FR 4236)
Supplement Analyses		
Greenville Gate Access to Kirschbaum Field at Lawrence Livermore National Laboratory (*no further NEPA review required)*	DOE/EIS-0236-SA1	12/97
Paleontological Excavation at the National Ignition Facility at Lawrence Livermore National Laboratory (*no further NEPA review required)*	DOE/EIS-0236-SA2	12/97

Analysis: EIS Completion Times and Costs

EISs Completed During the First Quarter of FY98

Naval Petroleum Reserve-California
Fossil Energy
Supplemental EIS/Program
Environmental Impact Report for Sale of the Naval Petroleum Reserve No. 1 at Elk Hills, California
DOE/EIS-0158-S2
EPA Rating: EC-2
Cost: $2.4 million ($0.1 million Federal, $2.3 million contractor)
Time: 19 months

Office of Naval Reactors
Nuclear Energy
Disposal of the Defueled S3G and D1G Prototype Reactor Plants
DOE/EIS-0274
EPA Rating: LO
Cost: $1.0 million, no contractor used
Time: 15 months
*[**NOTE:** NE-60 (Navy) documents are not used in cost and time analyses.]*

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

Environmental Impact of the Action
LO – Lack of Objections
EC – Environmental Concerns
EO – Environmental Objections
EU – Environmentally Unsatisfactory

Adequacy of the EIS
Category 1 – Adequate
Category 2 – Insufficient Information
Category 3 – Inadequate

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

By examining EISs started after July 1994, one can evaluate whether the Department is meeting the 15-month median completion time goal of the June 1994 Secretarial Policy Statement, and also establish a baseline for future studies of EIS time and cost performance. Briefly, the EIS completion time data to date show substantial progress, as explained below.

The June 2, 1997, *Lessons Learned Quarterly Report* provided a status report on a cohort of 24 EISs for which Notices of Intent had been issued between July 1, 1994, and March 31, 1997; the cohort consists of 10 programmatic or site-wide and 14 project-specific documents. Sufficient data are now available to justify another status report. Note, however, that the results may be biased until all EISs in the cohort are completed.

Since the June 1997 Report was issued, one EIS has been removed from the cohort because DOE was not the lead agency. Also, 14 of the 23 remaining EISs have now been completed. Time and cost measures for the completed EISs are presented in Table 1.

Table 1. EIS Cohort Status
23 EISs Started Between July 1, 1994 and March 31, 1997 (After the Secretary's NEPA Policy Statement)

EIS Type	Number Completed	Completion Times (months)			Costs ($M)		
		Median	Average	Range	Median	Average	Range
Total	14	14.5	16	9 to 26	3	5.7	0.02 to 20.9
Programmatic or Site-wide	7	17	18.5	12 to 26	8.2	9	0.1 to 20.9
Project Specific	7	11	13	9 to 19	2.4	2.3	0.02 to 4.2

**Results may be biased until cohort results are complete.*

Observations

Based on the wide range of completion times and costs, and the small size of the still incomplete sample, the data should be interpreted very cautiously.

Times: Although the available completion times sample may be biased low, more than half of the documents in the cohort are complete, and the raw data show that the full cohort median cannot exceed 20 months (no matter how long it takes to complete the remaining 9 EISs). Based on Program and Field Office estimates for these 9 remaining documents, the cohort median would be about 19 months.

Table 1 also shows the expected trend that project-specific EISs generally take less time to complete than the more complex programmatic and site-wide EISs.

Before July 1994, the median completion time was 33 months for a sample of 15 DOE EISs, nearly all of which were project-specific rather than programmatic or site-wide. Table 1 and schedule projections for the remainder of the cohort strongly suggest that the median completion time for project-specific EISs in the cohort could be close to 15 months. Overall, the cohort results show substantial improvement after July 1994.

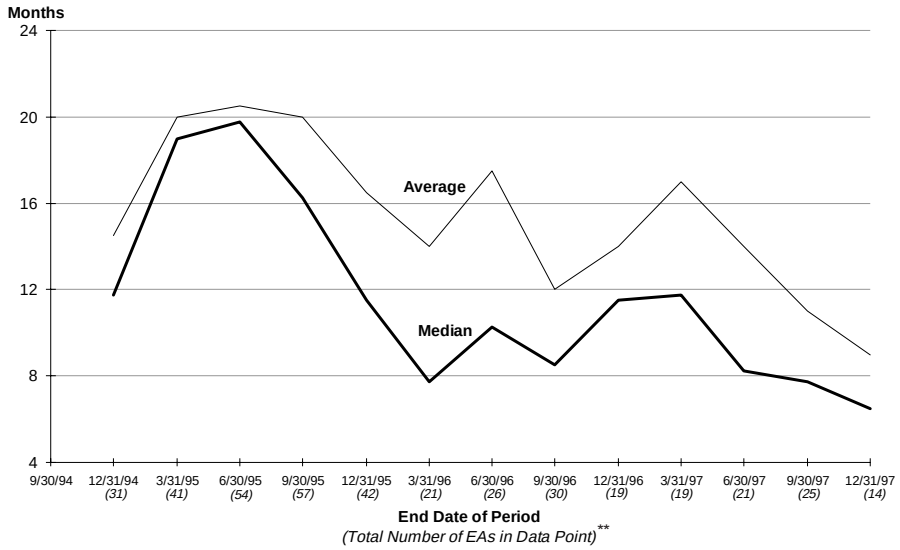
Costs: Table 1 shows a wide range of costs for preparing the 14 completed EISs, and, as expected, substantially lower costs on the whole for project-specific EISs relative to programmatic and site-wide EISs. There is no pre-July 1994 cost baseline to compare with, however. Indeed, results for this cohort will become a baseline against which the effects of more recent process improvements—such as the multiple DOE-wide NEPA contracts—can be measured.

Analysis: EA Completion Times and Costs

Figure 1. EA Completion Trendlines
6-Month Moving Trendlines, Revised Quarterly*

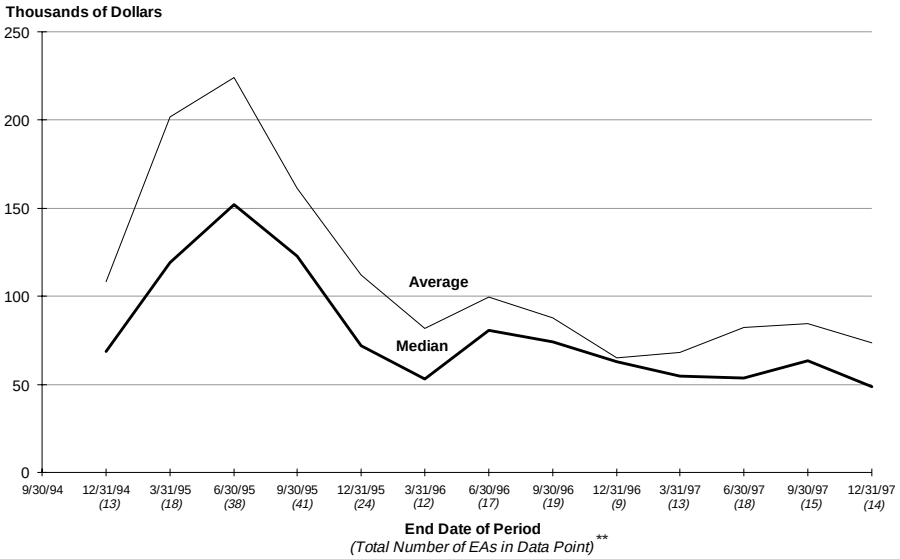
A. Completion Times

(219 EAs completed 7/1/94 through 12/31/97. Data shown are for 207 EAs with completion time reported)



B. Total Costs

(219 EAs completed 7/1/94 through 12/31/97. Data shown are for 133 EAs with total cost reported)



*Each data point represents EAs completed within the 6-month period ending on the indicated date. This technique tends to smooth out quarterly changes.

**EAs are counted in two data points, except perhaps the first and last.

This page and the next present the results of ongoing compilation and analysis of EA completion times and cost data provided by NEPA Document Managers in Lessons Learned Questionnaires.

Figures 1(A) and 1(B) present trendlines for overall DOE EA completion times and costs, respectively. Figures 2(A) and 2(B) *(next page)* display, for each EA preparing office, the median time and cost for the subset of EAs that were both started and completed after the June 1994 Secretarial Policy Statement.

Observations

The trends shown in Figure 1 are consistent with the streamlining process that was carried out under the 1994 Policy Statement. Early results included EAs that were begun before June 1994 and completed before the streamlining was fully implemented, which took about six months. Since then, time and cost trends have been highly favorable.

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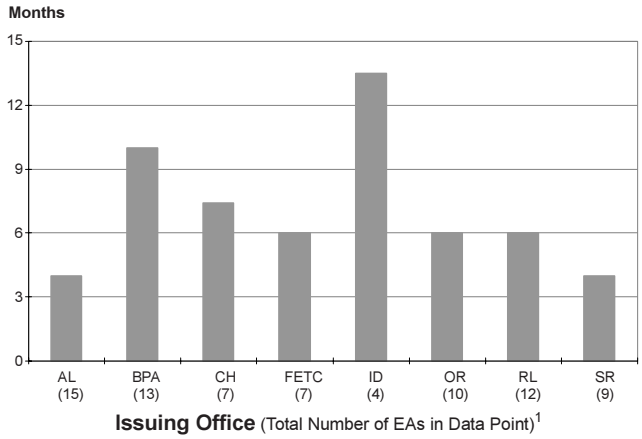
Observations *(continued)*

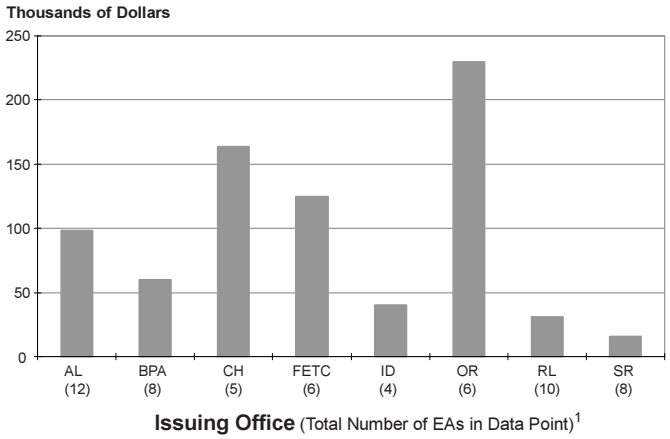
Figure 2 must be interpreted more cautiously, especially in light of statistical limitations, and should be most meaningful and useful to each office that prepares EAs. For many reasons, high time and cost are not necessarily inefficient. Appropriate time and cost vary with the complexity of proposed actions and alternatives, the environmental context, and local stakeholder involvement practices and requirements. Each Office is the best judge of its effectiveness and efficiency in preparing EAs. Figure 2 provides data whereby an Office may compare its results with those of other offices that may be similarly situated with respect to factors that determine EA times and costs. By engaging in "benchmarking," an Office could seek improvements that, in its own judgment, would bring its EA preparation process closer to optimum.

Figure 2. EAs Started and Completed after June 1994

A. Median Completion Times



B. Median Costs



[1]*Reported only for those Offices that have time and cost data for at least four EAs.*

EAs Completed During the First Quarter of FY98

Bonneville Power Administration

Methow Valley Irrigation District Project, Okanogan County, Washington
DOE/EA-1181
Cost: $244,000
Time: 16 months

Federal Energy Technology Center

Fossil Energy
Hoe Creek Underground Coal Gasification Test Site Remediation, Campbell County, Wyoming
DOE/EA-1219
Cost: $62,000
Time: 4 months

Idaho Operations Office

Energy Efficiency and Renewable Energy
City of Boise Geothermal Project, Phase III, Boise, Idaho
DOE/EA-1133
Cost: $10,000
Time: 21 months

Los Alamos Area Office

Defense Programs
Lease of Land for the Development of a Research Park at Los Alamos National Laboratory, New Mexico
DOE/EA-1212
Cost: $145,000
Time: 7 months

Nevada Operations Office

Environmental Management
Area 5 Radioactive Waste Management Site Access Improvement Project, Nevada Test Site, Nevada
DOE/EA-1170
Cost: $15,000
Time: 23 months

Oakland Operations Office

Environmental Management
Off-Site Transportation of Low-level Waste for Four California Sites
DOE/EA-1214
Cost: $25,000
Time: 7 months

Oak Ridge Operations Office

Environmental Management
Proposed Lease of Land and Facilities within the Oak Ridge K-25 Site, Oak Ridge, Tennessee
DOE/EA-1175
Cost: $345,000
Time: 19 months

Energy Research
Proposed Increase in Operating Parameters of the Continuous Electron Beam Accelerator Facility at the Thomas Jefferson National Accelerator Facility, Newport News, Virginia
DOE/EA-1204
Cost: $168,000
Time: 8 months

Savannah River Operations Office

Environmental Management
DOE Permission for Off-loading and Transportation of Commercial Low-level Radioactive Waste Across the Savannah River Site
DOE/EA-1218
Cost: $17,000
Time: 4 months

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