National Environmental Policy Act

LESSONS
LEARNED

NEPA

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U.S. Department of Energy

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Preface

This is a collection of mini-guidance on DOE NEPA issues compiled from the *Lessons Learned Quarterly Report* from December 1994 to September 2000. A complete archive of *Lessons Learned Quarterly Reports* is available on the DOE NEPA Web (tis.eh.doe.gov/nepa/) under DOE NEPA Process Information. This mini-guidance collection is available from the same Web page, under DOE NEPA Tools.

Mini-guidance articles in this collection contain procedural interpretations and recommendations developed by the Office of NEPA Policy and Compliance (formerly, NEPA Policy and Assistance) in consultation with the Office of General Counsel and others. To comment on this collection or for more information on the content of the mini-guidance, please contact:

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The Summary: What Everyone Reads

The Summary is a key section of an EIS because it provides the sharpest definition of the issues and basis for choice among options. For many readers the Summary forms their first and last impression of the document (i.e., it is the only section that many people read).

In view of its importance, we present here lessons learned in preparing an EIS summary.

♦ The Council on Environmental Quality's NEPA regulations (40 CFR 1502.12) state that the purpose of the Summary is to adequately and accurately summarize the environmental impact statement. The regulations require the Summary to emphasize major conclusions, areas of controversy (including issues raised by agencies and the public), and the issues to be resolved (including the choice among alternatives). The Summary normally should not exceed 15 pages.

> *The EIS Summary provides the sharpest definition of the issues and basis for choice among options...*

♦ The Summary should not introduce ideas, information, or conclusions that are not otherwise in the EIS. To the greatest extent practicable, the Summary should use material from the body of the EIS as a means of assuring strict consistency. When the Summary requires new writing to meet editorial requirements, be sure such writing merely summarizes and does not change the EIS.

♦ The most successful summaries (and EISs) focus on the key issues and make effective use of graphics and tables to present and compare the environmental impacts of the proposal and the alternatives. Less effective summaries carry forward trivial impacts that tend to obscure the real issues.

♦ In summarizing complex information, some EIS preparers have oversimplified presentations and thereby misled the reader. The challenge is to convey both the absolute <u>and</u> relative importance of each impact. If an impact is at a trivial level for each alternative, then relative differences are not important. [Example: If all alternatives would generate less than $10 of socioeconomic impact, it does not matter that one alternative would generate 5 times as much as another. Rather, all alternatives would have essentially no impacts.]

♦ One should also guard against "rolling-up" impacts that readers (including decision makers) may value differently, such as risks to workers vs. risks to the public, or (near-term) risks from facility operations vs. delayed (long-term) risks from disposal. Similarly, impacts should not be combined when their uncertainties are very different, such as estimated deaths from construction accidents (well-established frequency) vs. estimated deaths from certain nuclear materials handling accidents (relatively much less certain).

♦ Because of the difficulties expressed in the two preceding paragraphs, several well-motivated simplification attempts have not succeeded, such as ranking alternatives according to their environmental impacts, and using bar charts or circle displays that Consumer Reports has successfully applied to significantly different circumstances. These efforts were not published in NEPA documents because they were too subjective or incomplete, and therefore potentially misleading.

♦ It may be useful to have "fresh eyes" prepare the Summary, as a check on how well the EIS is "telling its story," and to identify any gaps or inconsistencies in the EIS.

♦ For an EIS being prepared under a contract, the Summary is one of several sections that may be suited to a fixed-price arrangement because the requirements for a summary are easy to specify. ~~Readers are referred to "National Environmental Policy Act Contracting Reform Guidance: Phase II," issued by the Office of NEPA Policy and Assistance in December 1995.~~ **L**L

> *The Summary should not introduce ideas, information, or conclusions that are not otherwise in the EIS...*

March 1996

Note: *See "NEPA Contracting Reform Guidance," issued by the Office of NEPA Policy and Assistance in December 1996. It is in the DOE NEPA Compliance Guide and on the DOE NEPA Web (tis.eh.doe.gov/nepa/) under DOE NEPA Tools.*

An EIS Must Include Its Distribution List

The Council on Environmental Quality (CEQ) NEPA regulations at 40 CFR 1502.10 require that an EIS include a list of agencies, organizations, and individuals to whom copies of the EIS are sent. This requirement does not distinguish between a draft and final EIS.

Having a reliable record of EIS distribution is also a useful management tool, particularly for follow-up public involvement such as distributing a Record of Decision (*Lessons Learned Quarterly Report,* June 1999, page 10) or preparing a Supplemental EIS. A distribution list also can prove helpful in litigation. When a litigant raises issues regarding the adequacy of public notice, the distribution record can help demonstrate DOE's compliance with requirements. Recently, when DOE was questioned regarding distribution of an EIS to an adjoining state, it was helpful to refer to the distribution list printed in the EIS.

Recommendations for DOE NEPA Practitioners

The NEPA Document Manager should plan, develop, and maintain a distribution list throughout the entire EIS document preparation and publication process.

- Plan the distribution list from the beginning based on early knowledge of parties interested in the proposed action, such as is obtained during EIS scoping.

- Identify people who are interested in DOE actions generally, and are likely to be interested in the proposed action.

- Use resources such as Program or Field Office mailing lists and the "Directory of Potential Stakeholders for DOE Actions under the National Environmental Policy Act," which the Office of NEPA Policy and Assistance publishes in January and July of each year.

- As appropriate, coordinate with field and headquarters public affairs staffs, and headquarters Congressional Affairs staff.

- Assemble the distribution list before the draft or final EIS is at the approval stage to avoid delaying document printing.

- Develop the final EIS distribution list by modifying the draft EIS distribution list; include people who request the draft EIS after its intitial distribution and those who comment on the draft EIS.

- Indicate which parties on the distribution list received the entire EIS and which received only the summary, if distribution is made under 40 CFR 1502.19.

- Do not publish personal contact information, such as full addresses, for private individuals.

For further assistance in planning EIS distribution, contact your NEPA Compliance Officer. For matters regarding the DOE NEPA Stakeholders Directory, contact Katherine Nakata at katherine.nakata@eh.doe.gov, or phone 202-586-0801. **L**L

December 1999

Adding Material as an Appendix Versus Incorporating It by Reference

Q: When is it appropriate to add material as an appendix to a NEPA document; when is it appropriate to incorporate material by reference?

A: These important issues affect the utility of the document as a decision making tool and the cost and time for its preparation. CEQ has regulatory instructions on EIS appendices (40 CFR 1502.18) and references (1502.21), and has provided guidance on their application (see below). When a complex NEPA analysis is involved, the DOE document preparation team should consider these matters early, taking account of any stakeholder preferences, the CEQ regulations and guidance, and advice from legal counsel. The team may also consult several recently issued comparable NEPA documents as examples.

The CEQ's guidance regarding its requirements is published as a response to Question 25 of the "Forty Most Asked Questions on CEQ's National Environmental Policy Act Regulations" (46 FR 18026, March 23, 1981, as amended), and is reprinted here for the reader's convenience:

> *The body of the EIS should be a succinct statement of all the information on environmental impacts and alternatives that the decision-maker and the public need, in order to make the decision and to ascertain that every significant factor has been examined. The EIS must explain or summarize methodologies of research and modeling, and the results of research that may have been conducted to analyze impacts and alternatives.*

> *Lengthy technical discussions of modeling methodology, baseline studies, or other work are best reserved for the appendix. In other words, if only technically trained individuals are likely to understand a particular discussion then it should go in the appendix, and a plain language summary of the analysis and conclusions of that technical discussion should go in the text of the EIS.*

> *Material that is not directly related to preparation of the EIS should be incorporated by reference. This would include other EISs, research papers in the general literature, technical background papers or other material that someone with technical training could use to evaluate the analysis of the proposal. These must be made available, either by citing the literature, furnishing copies to central locations, or sending copies directly to commenters upon request.*

Finally, DOE's NEPA regulations (10 CFR 1021.340(b)) provide that DOE shall, to the fullest extent possible, segregate information that is exempt from disclosure requirements, such as classified information, into an appendix to allow public review of the remainder of a NEPA document. **LL**

June 1996

A DOE EIS Must Include Contractor Disclosure Statement

Council on Environmental Quality (CEQ) NEPA regulations require a contractor preparing an EIS to be free of financial or other interest in the outcome of the environmental review and related agency decisions. Contractors must execute a disclosure statement prepared by the lead agency or, where appropriate, a cooperating agency specifying that they have no financial or other interest in the outcome of the project (40 CFR 1506.5(c)).

DOE NEPA implementing regulations require such disclosure statements from EIS contractors and subcontractors, and that the statements be included in a draft and final EIS (10 CFR 1021.310).

Recommendations for Contractor Disclosure Statements

For an EIS prepared by a contractor, the NEPA Document Manager, with assistance from the Contracting Officer as appropriate, should consider these recommendations:

✔ Confirm the absence of conflict of interest early in the process, ideally before awarding the EIS task order or contract.

✔ Provide the contractor with a sample disclosure statement.

✔ Direct the contractor to execute a disclosure statement and to obtain disclosure statements from any subcontractors. Preferably, such direction should be in the statement of work for any contract for NEPA document preparation. Paragraph 5.1 in the statements of work in the DOE-wide NEPA contracts addresses the requirement for disclosure statement(s) and could be used as a model.

✔ Include the disclosure statement(s) in the draft and final EIS. Any logical location is acceptable (for example, near the list of EIS preparers or in a labeled appendix).

✔ If a long period elapses between first executing the disclosure statement(s) and issuing the final EIS, confirm that the statement(s) remains valid. **L**ᴸ

June 2000

An EIS Needs an Index

The Council on Environmental Quality (CEQ) NEPA regulations (40 CFR 1502.10) require that an EIS include an index. This requirement does not distinguish between a draft and final EIS. The EIS index is distinct from the table of contents, which is also required.

In "NEPA's Forty Most Asked Questions" (46 FR 18026; March 23, 1981), in response to "How detailed must an EIS index be?" (Question 26a), CEQ advises: "The EIS index should have a level of detail sufficient to focus on areas of the EIS of reasonable interest to any reader. It cannot be restricted to the most important topics. On the other hand, it need not identify every conceivable term or phrase in the EIS. If an agency believes that the reader is reasonably likely to be interested in a topic, it should be included."

Creating a useful index requires planning and judgment. While word processing software facilitates generating an index, it is not an entirely automated function. During EIS preparation, the NEPA Document Manager, subject area specialists, public involvement staff, and technical editors

all should help identify key words. Preparing an index is a craft, however, and an index specialist can likely coordinate the job best.

Even after a software program generates an initial draft index, further work is almost always needed to check entries, add subheadings and cross-references, and remove unnecessary items.

Recommendations:

✔ Do not rely upon the EIS table of contents as an index.

✔ Choose index entries that readers, including the public, are reasonably likely to know and want to read about.

✔ Consider using an index specialist.

✔ Apply a quality control process to the index.

✔ Track index development as a subtask in EIS preparation. **L**ᴸ

March 1999

Eliminating Alternatives or Impacts from Detailed Analysis: Need for Care

By eliminating unreasonable alternatives or unimportant impacts from detailed analysis, NEPA documents can be made shorter and more focused. Council on Environmental Quality regulations state that impacts should be discussed in proportion to their significance, with only a brief discussion of other than significant issues [40 CFR 1502.2(b)], and that brief discussions of the reasons for eliminating alternatives from detailed consideration should be provided [40 CFR 1502.14(a)].

Preparers of certain recent NEPA documents made good judgments regarding which alternatives or impacts to dismiss from detailed consideration, but stated the reasons poorly. For example, a recent EIS was drafted to say: "The potential impacts associated with off-site waste disposal sites are not evaluated in detail as the potential impacts would provide additional adverse consequences beyond those addressed here." [sic]

A different EIS was drafted containing a list of criteria used to screen candidate alternatives that the public recommended during the scoping process. The first criterion listed was: "Is the alternative within the scope of the EIS?" This criterion could be interpreted as dismissing any alternative that DOE had not previously included in the scope, which would defeat the purpose of the public scoping process. A separate criterion stated that a proposed new alternative must be substantially different from those already included in the scope of the EIS to qualify for further consideration, which would foreclose consideration of improvements that were not substantially different. **LL**

March 1996

Consistency Among "Affected Environment" Descriptions in Related EISs

Q: *Several recent programmatic, site-wide and other EISs have been issued with "Affected Environment" chapters that contain different, potentially inconsistent descriptions of the same DOE sites. Would this apparent lack of consistency of description invalidate otherwise adequate EAs that tier from or reference the Affected Environment chapter in such an EIS?*

A: Such EAs would not be considered inadequate. Differences (other than errors) among the various treatments of "Affected Environment" may be appropriate because each NEPA document should be up-to-date and focused on the components of the environment that may be affected by the specific proposed actions and alternatives that document addresses. As discussed in the "Green Book," the extent of the "affected environment" may not be the same for all potentially affected environmental components. For example, traffic may increase within four kilometers of a proposed landfill (the extent of the affected environment with respect to transportation impacts), whereas groundwater may extend only two kilometers from the proposed landfill (the extent of the affected environment with respect to groundwater impacts). Clearly, too, emissions from a large industrial facility such as a nuclear reactor may affect air

resources over a greater area than would a typical laboratory operation. In general, site-wide EISs should provide the most complete descriptions of the affected environment because site-wide analyses consider a wide range of uses of a site.

Although differences among "Affected Environment" chapters may be appropriate, the chapters should not be reinvented when valid existing NEPA documents could be referenced, incorporated, or updated if necessary, reducing document preparation time and costs. Experience with recent programmatic and other NEPA documents that involve multiple facilities suggests that problems and costs would be minimized if NEPA Document Managers would: 1) consult with the cognizant NEPA Compliance Officer for each site during the internal scoping process about the usefulness of previously prepared materials or those currently being prepared; 2) limit the description of the existing environment to information that directly relates to the proposed action and alternatives whose impacts are to be analyzed; and 3) establish the appropriate (i.e., sufficient, but not excessive) level of detail to be presented. **LL**

September 1995

Assessing No Action Alternatives in DOE EAs

Q: Must the no action alternative be assessed in DOE environmental assessments (EAs)?

A: Yes. DOE NEPA regulations are clear about this: "...In addition to any other alternatives, DOE shall assess the no action alternative in an EA even when the proposed action is specifically required by legislation or a court order." (10 CFR 1021.321(c)). Council on Environmental Quality regulations explicitly require assessment of the no action alternative only for EISs, which may explain why this question arises at DOE from time-to-time. **LL**

March 1996

Affected Environment and No Action Alternative: Different Concepts, Different Time Frames

An incorrect premise sometimes takes root in the early stages of an EIS's development – that the environmental impacts of the no action alternative are equivalent to the description of the affected environment. These are different concepts, however, and serve different purposes.

The affected environment is the setting within which a proposed action would take place. It encompasses current conditions and, as relevant, past fluctuations and patterns in natural and human systems. The description of the affected environment in a NEPA document is a snapshot of *present* conditions of resources and geographic areas that potentially could be affected by a proposed action and its alternatives. It lays the foundation – an environmental baseline – for assessing potential impacts of a proposed action.

In contrast, the potential impacts of the no action alternative are estimated from a projection of current conditions into the *future*, under the influence of activities that would continue and those that would carry out decisions previously made. Although the no action alternative often is described as maintaining the "status quo," this does not mean that no action is a static condition. Rather, the impacts of this alternative form a different sort of baseline that allows decision makers and the public to compare future impacts under alternative scenarios. To allow meaningful comparisons, the time span used to assess the impacts of the no action alternative must be comparable to the time span used to analyze the impacts of the action alternatives.

For example, the affected environment's air quality discussion might describe the general climate, wind, temperature, rainfall, ambient concentrations of air pollutants at the site, and current site emissions and emission rates. Also, this discussion would, as appropriate, identify existing air quality permits and specify the attainment status for criteria pollutants. In contrast, impact assessment for the no action alternative would project future site emissions and emission rates without the proposed action. The impact assessment also would identify the impacts of such future emissions on compliance with applicable air quality regulations and permits, the attainment status for criteria pollutants, and human health and environment. **LL**

September 2000

Appropriate Time Frames for Environmental Impact Analysis

Q: What is the appropriate time frame for which environmental impacts should be analyzed? We analyzed the impacts that would occur during the 10-year horizon for reasonably foreseeable actions in our site-wide EIS, and lost time when we were asked to go back and analyze impacts over a longer time frame.

A: In general, impacts should be analyzed for as long as they are reasonably expected to occur.

This question reflects confusion regarding reasonably foreseeable actions and their reasonably foreseeable resulting impacts. To illustrate, consider sitewide EISs in which the Department has used, as a point of departure, a 10-year horizon or window within which it is reasonable to project activities that may occur and whose impacts should be analyzed. If a project were proposed to start during the 8th year, however, and is estimated to have a duration of 15 years, it would not make sense to analyze operational impacts for only 2 years. In such a case, operational impacts should be analyzed for at least 15 years (13 years beyond the 10-year horizon). In addition, impacts such as those related to decommissioning may need to be considered beyond the operational lifetime, and waste disposal impacts may occur hundreds or thousands of years from the time that disposal activity took place. [Note: readers may wish to refer to the top of page 21 of the "Green Book" *(Recommendations for Preparing Environmental Assessments and Environmental Impact Statements)* for further information on the relationship between project duration and time periods for assessing health effects.] **LL**

March 1996

Regulatory Compliance ≠ No Environmental Impacts ≠ Insignificant Impacts

It's an issue that comes up frequently in NEPA reviews: "The Alpha Project will comply with the x, y, z standards. Therefore, no significant impacts are anticipated." As the song goes, "it ain't necessarily so." And such an approach does not necessarily comply with NEPA. Every DOE project is required to comply with all applicable environment, safety, and health standards and regulatory requirements. Nevertheless, we still do NEPA reviews. Why is that?

Even Compliant Projects Have Impacts

Stating in a NEPA document that a proposed action "would be carried out in compliance with applicable regulatory requirements" does not mean that there would be *no* environmental impacts or that the impacts would be *insignificant*. There would be impacts from taking action, and even fully compliant actions may have significant environmental impacts. These points are discussed in "Recommendations for the Preparation of Environmental Assessments and Environmental Impact Statements" (also known as the Green Book, DOE/EH, May 1993, pages 29 to 30).

That regulatory compliance demonstrates neither absence nor insignificance of environmental impacts is clearly illustrated by considering a major project – such as a dam, highway, or airport – that is *intended* to significantly change the human environment. Such projects must satisfy many types of environmental regulatory requirements, yet they impose large, significant, and permanent environmental impacts.

Early Court Case on NEPA and Regulatory Standards

One of the first cases to interpret NEPA, *Calvert Cliffs' Coordinating Committee v. Atomic Energy Commission*,[1] considered whether regulatory compliance relieves an agency of any NEPA obligations. In this case, the Atomic Energy Commission, in considering a license application for a nuclear power plant, indicated that, with regard to water quality impacts of the plant, it would defer to water quality standards established and administered by state agencies and approved by the Federal government under the Federal Water Pollution Control Act. The most the Commission indicated it would do was to include a condition in all construction permits and operating licenses that would require compliance with the water quality and other standards set by the agencies.

In rejecting the Commission's view of the connection between regulatory requirements and NEPA compliance,

the court noted that NEPA requires a Federal agency proposing an action to undertake a "case-by-case balancing judgment" of the particular economic and technical benefits weighed against the environmental costs. The water quality standards in effect established a minimum condition for the granting of a license, but the Commission was not precluded from demanding more strict water pollution controls than those demanded by the applicable water quality standards. The court recognized that in some circumstances there may be significant environmental damage, although not quite enough to violate applicable standards.

Relation to "Significance"

The *significance* of impacts of a proposal that complies with regulatory requirements depends on context and intensity (40 CFR 1508.27). For example:

- A proposal to construct and operate an industrial facility in an already disturbed area may conform to all applicable regulations, but could result in cumulatively significant environmental impacts.

- A facility constructed in a pristine area may be able to obtain all necessary permits, but could impose burdens on natural resources that did not previously exist.

- A small facility and a very large one of the same type (for example, coal-fired power plants) must each meet all applicable environmental requirements (perhaps the same requirements), but may have impacts that differ greatly in significance.

Further, the CEQ regulations direct that a proposal's *threatened* violation of Federal, state, or local environmental laws or requirements is one of ten factors to consider in determining whether the impacts of the proposal are significant. (See 40 CFR 1508.27(b)(10) and 10 CFR Part 1021, Appendix B to Subpart D, Conditions that are integral elements of the classes of action in Appendix B, subsection (1)). In this light, using up the remaining allowable increment under air emissions standards would be compliant, but the proposal nevertheless may have significant impacts.

Recommendations

✔ Do not use compliance with regulatory standards or permits as justification for not analyzing the impacts or as evidence that a proposed action or alternative lacks potential for significant environmental impacts.

✔ Address potential or threatened violation of laws, regulations, and standards in evaluating significance of impacts. **L L**

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[1] 449 F.2d 1109 (D.C. Cir.1971), *cert. denied*, 404 U.S. 942 (1972).

December 1998

Using Bounding Analyses in DOE NEPA Documents

DOE NEPA documents sometimes estimate impacts by means of a "bounding" analysis; i.e., an analysis that uses simplifying assumptions and analytical methods that are certain to overestimate actual environmental impacts. While bounding analysis can be efficient, and is sometimes necessary, DOE should take care to use that approach only in appropriate circumstances; i.e., where the differences among alternatives would not be obscured. The purpose of this mini-guidance is to describe appropriate and improper uses of bounding analysis.

Neither the Council on Environmental Quality (CEQ) NEPA implementing regulations (40 CFR Parts 1500-1508) nor the DOE NEPA regulations specifically address bounding analyses in NEPA documents, but there are situations where the bounding approach is helpful. These situations include:

♦ Where information relevant to reasonably foreseeable significant adverse impacts cannot be obtained because the overall costs of obtaining it are exorbitant or the means to obtain it are not known (*See* 40 CFR 1502.22), bounding analysis may provide an efficient, practical solution. In such cases, DOE must make reasonable, conservative assumptions for purposes of analysis, which should produce estimates that bound the impacts to a reasonable degree. For example, cumulative impacts would need to be bounded in a site-wide EIS for a site that is being considered in another EIS as an alternative (i.e., not proposed/ preferred) location for a new activity. Including the best available information regarding the impacts of the potential new activity in the cumulative impacts for the site would account for all reasonably foreseeable actions, but would overstate the probable impacts. The EIS being prepared for operations of the Pantex Plant, for example, includes in its cumulative impacts analysis several functions for Pantex that are being considered (short of being preferred) in several other EISs that are in preparation.

♦ Where DOE is evaluating the potential environmental impacts of a program or a broad agency action, simplifying assumptions may be necessary to perform the analysis. While the assumptions may be conservative and the impacts estimated may be substantially higher than those that would actually occur, the *relative* differences in the impacts among the alternatives should be discernible for the analysis to be useful in informing the choice among alternatives.

♦ Where a simple conservative analysis is sufficient to show that an impact is insignificant and doesn't warrant further investigation, bounding analysis may be efficient, though not necessary. This approach is useful for both EAs and EISs.

In sum, using conservative assumptions and analytical methods to bound an impact may be appropriate and even necessary in some cases. Nevertheless, bounding analyses should not be used where more accurate and detailed assessment is possible and would better serve the purposes of NEPA. Therefore, when using bounding analysis:

♦ DOE must ensure that the analysis is not so broad and all-encompassing as to mask the distinctions among alternatives, or to hinder consideration of mitigations.

♦ Even where overall impacts are small, detailed analysis for each alternative may be needed where differences in impacts may help to decide among alternatives or to address concerns the public has expressed, as sometimes applies when DOE must select sites or transportation routes and methods for conducting its operations.

♦ It is never appropriate to "bound" the environmental impacts of potential future actions (not yet proposed) and argue later that additional NEPA analysis is unnecessary because the impacts have been bounded by the original analysis. ◼L

June 1996

Using Draft Material to Support Analyses

Q: When can draft material (in preparation) be used to support analyses in a NEPA document?

A: The issue here is not so much whether the material is a draft as whether the information it provides is reliable enough to support the use that would be made of it in the NEPA document. The answer to this question relies on technical judgment. If the draft material is sufficiently reliable and is referenced in a NEPA document, then the material—labelled DRAFT—must be made available to the public, such as by placement in appropriate public reading rooms. **L**L

June 1996

When We Don't Know, Say So

"I don't know." These may well be the three most difficult words a technical analyst ever has to say.

In NEPA documents, agencies are expected to discuss the environmental impacts of a proposed action. Council on Environmental Quality (CEQ) regulations direct that this environmental information, presented to decision makers and the public, must be "of high quality"; the regulations inform us that "accurate scientific analysis" is "essential to implementing NEPA" (40 CFR 1500.1(b)). But in practice, environmental information may be lacking, environmental systems are often more complex than we realize, and our ability to estimate potential consequences accurately may be severely limited. There even is uncertainty about uncertainty analyses.

CEQ regulations address the issue of "incomplete and unavailable information" as follows: "When an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an environmental impact statement and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking" (40 CFR 1502.22). NEPA implementation, in other words, does not require perfect knowledge. It does require, however, that we describe what we know and, when necessary, disclose what we do not know when conducting analyses of significant or potentially significant adverse effects in an EIS. In these cases, CEQ regulations require an agency to obtain information that is essential to a reasoned choice among alternatives when the cost is not exorbitant.

In environmental assessments, document preparers also should disclose when information is incomplete and unavailable. However, note the following from *Recommendations for the Preparation of Environmental Assessments and Environmental Impact Statements* (DOE/EH, May 1993; page 19): "Use available data for an EA. If data needed to quantify impacts are not available, prepare a qualitative description of the most relevant impacts. Be aware that inability to satisfactorily characterize an important impact in an EA likely will render it inadequate to support a finding of no significant impact."

Finally, when we do not know, we may be tempted to conclude that impacts are "minor" or "insignificant," because we "know" (or think we know) based on judgment or intuition that they just *are*. Nevertheless, an EIS or EA should not include unsubstantiated conclusions.

Recommendations:

✔ Be clear about unknown impacts in NEPA documents. If relevant information needed for a NEPA document cannot be obtained for technical or cost reasons, say so.

✔ Avoid inappropriate conclusions to the effect that the information or data are unavailable but the impacts are minor. **L**L

March 1999

Estimating Potential Health Effects for Workers

Q: *The "Green Book" (Recommendations for the Preparation of EAs and EISs, May 1993) recommends that NEPA documents should provide estimates of potential health effects from chemical or radiological exposure to workers who would be involved in the proposed action. However, accurate estimates are extremely difficult to make for involved workers located inside buildings, and many dispersion models do not apply close to release sources. Should the "Green Book" be revised to drop this recommendation?*

A: The recommendation is appropriate. The "Green Book" recommends application of the sliding scale approach in which impacts are analyzed in proportion to their significance. For many DOE proposals, potential impacts to involved workers under routine and accident conditions may be an important factor in discriminating among alternatives or determining the need for mitigation. Such impacts should be estimated using the sliding scale principle. Experience shows that when document preparers understand the need to provide such estimates early in the document preparation process, they are able to make credible evaluations. In some cases, such estimates must necessarily be semi-quantitative or qualitative in nature, taking into account estimates of the number of workers involved and judgments about consequences to them under routine and accident conditions. Where standard dispersion models won't work, credible estimates based on simplifying assumptions are usually possible and sufficient for describing the likely impacts (e.g., "the five workers who would be directly involved with the activity would be unlikely to experience any serious permanent health effects," or "the three workers who would normally be close to the accident would most likely suffer serious injury or death, while the remaining two or so workers who would be nearby probably could escape"). ⌐L

September 1995

Assessing Local Impacts from Off-site Vendors

Q: Is there a need for a DOE NEPA document to assess local impacts associated with the ongoing operation of an already-licensed off-site vendor facility to which DOE proposes to send waste for treatment or disposal?

A: Yes. The vendor's action regarding DOE's waste would be connected to DOE's action, and analysis of impacts from the vendor's action therefore is within the scope of DOE's NEPA review obligation (see 40 CFR 1508.25(a)).

Ideally, DOE should assess the impacts no differently than if DOE operated the facility. Such analysis should be guided by the "sliding scale" principle described in *Recommendations for the Preparation of Environmental Impact Statements and Environmental Assessments*; i.e., the level of detail should be commensurate with the importance of the impacts or issues related to the impacts. If DOE's proposed waste load would be a small part of the facility's throughput and the facility would operate well within its established standards, then the vendor's part of DOE's proposal would be low on the scale, and a statement of this context could adequately characterize the impacts. More detailed analysis might be needed, however, when such conditions do not apply. DOE may then need to obtain adequate information from the candidate vendor(s) (perhaps under the provisions of 10 CFR 1021.216, as discussed on page 5 of this Lessons Learned Report)* or conduct the NEPA review with incomplete or unavailable information (see 40 CFR 1502.22 for applicable requirements). ⌐L

March 1996

* See page 9-1 in this mini-guidance collection.

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.*]

March 1998

Pollution Prevention and NEPA

This article reminds readers of DOE, Council on Environmental Quality (CEQ), and Environmental Protection Agency (EPA) guidance on considering pollution prevention in the NEPA process.

Major environmental laws enacted in the 1970s and 1980s (e.g., Clean Air Act, Clean Water Act, and Resource Conservation and Recovery Act) focused on controlling pollution and cleaning up immediate environmental problems, largely by limiting releases to environmental media. These laws have brought about substantial improvements in environmental quality, but they do not encourage consideration of the multimedia "big picture." They create no direct incentives to reduce pollution at the source.

Recognizing this, Congress passed the Pollution Prevention Act in 1990 (42 U.S.C. 13101 et seq.), which established a national policy to prevent or reduce pollution at the source, recycle waste, treat pollution in an environmentally safe manner, and dispose of waste only as a last resort.

DOE Guidance on Pollution Prevention and NEPA

A 1992 memorandum from the Office of NEPA Policy and Assistance to NEPA Compliance Officers encouraged the use of the NEPA process to incorporate pollution prevention principles into DOE's planning and decision making, in anticipation of CEQ and EPA guidance. The Office of Science (formerly Energy Research) issued its own guidance entitled "Incorporating Pollution Prevention into the National Environmental Policy Act Process" in September 1994 (ER NCO Communication 94-05). Other Offices, including Environmental Management and Defense Programs, also have provided pollution prevention guidance, but not with a NEPA focus.

CEQ and EPA Guidance

CEQ has issued guidance to Federal agencies emphasizing that NEPA provides "a longstanding umbrella for a renewed emphasis on pollution prevention in all federal activities" (58 FR 6478; January 29, 1993). The CEQ guidance provides techniques for incorporating pollution prevention into Federal planning and decision making processes and for reporting on those efforts in NEPA documents. CEQ indicated that Federal policies, projects, procurements, and approvals are all areas in which pollution prevention efforts might be warranted. In addition, CEQ noted that pollution prevention could be incorporated into the NEPA process through scoping, the description of the proposed action and alternatives, and mitigation.

EPA's Office of Federal Activities issued guidance in February 1993 to promote a clearer understanding of how pollution prevention can be incorporated into the NEPA environmental review process. In addition, in January 1995, EPA issued pollution prevention checklists for 30 types of projects (including energy management, power plants, hazardous waste incinerators, hazardous materials storage and treatment facilities, and cleanup activities).

Recommendations for Incorporating Pollution Prevention in the DOE NEPA Process

Implementing pollution prevention principles is good management and the right thing to do, consistent with the letter and spirit of NEPA, compliant with laws and guidance, and likely to produce efficiencies and savings. Pollution prevention approaches must be incorporated into project plans, however, not just discussed as elements in a NEPA review. The following recommendations, based on CEQ and EPA guidance, may assist in identifying and incorporating pollution prevention into the NEPA process and project decision making.

*   Evaluate early in project planning the potential for including pollution prevention in a proposed project. Potential approaches include reducing the amount or toxicity of waste generated; substituting materials; increasing efficiency in use of raw materials, energy, and water; purchasing energy-efficient equipment or materials with recycled content; modifying procedures to reduce waste; and reusing or recycling materials on the same or another project.

*   In an EIS Notice of Intent, explicitly include pollution prevention as a scoping topic. Define pollution prevention and include examples to stimulate stakeholders' consideration of the subject.

    Design the proposed action and alternatives with pollution prevention approaches incorporated as project features. For example, when proposing the size and location of a facility, consider how its impacts depend on its size and on its distance to sensitive resources or transportation routes. In an EA or EIS, identify particular pollution prevention measures that were incorporated into the proposed action and alternatives and describe how they would reduce or prevent pollution.

Pollution Prevention and NEPA

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Existing Pollution Prevention and NEPA Guidance

Documents marked with "*" may be found in the DOE NEPA Compliance Guide and also on the DOE NEPA Web at http://tis.eh.doe.gov/nepa/ under DOE NEPA Tools.

1992   DOE's Office of NEPA Policy and Assistance guidance on Integrating Pollution Prevention with NEPA Planning Activities *

       DOE's Policy on Waste Minimization and Pollution Prevention

1993   CEQ's Memorandum to Federal Agencies on Pollution Prevention and the National Environmental Policy Act *

       EPA's Guidance on Incorporating EPA's Pollution Prevention Strategy into the Environmental Review Process *

1994   DOE's Office of Energy Research Guidance on Incorporating Pollution Prevention into the National Environmental Policy Act (NEPA) Process, http://epic.er.doe.gov/epic/scripts/epic.exe?ShowProfile/388

1995   EPA's Pollution Prevention/Environmental Impact Reduction Checklists for NEPA/309 Reviewers, http://es.epa.gov/oeca/ofa/pollprev.html

1996   DOE's Pollution Prevention Program Plan

       DOE's Office of Environmental Management Guidance on Incorporating Pollution Prevention into the National Environmental Policy Act Process

Other references

- The DOE Pollution Prevention Information Clearinghouse Home Page is found at http://epic.er.doe.gov/epic/.

- ESAVE (formerly Pollution Prevention Advisor), the DOE Defense Programs Quarterly Newsletter, is available at www.dp.doe.gov/dp45/p2/.

- The DOE Office of Environmental Management Pollution Prevention Home Page is at www.em.doe.gov/wastemin/.

- Identify recycling and energy recovery options in an EA or EIS that would be employed if the proposed action or alternatives were implemented.

- In an EA or EIS, identify pollution prevention approaches that could be mitigation measures and describe how they could reduce or prevent pollution.

- Consider including a distinct section entitled "Pollution Prevention" in an EA or EIS. This section could recap the pollution prevention measures incorporated into the proposal, alternatives, and potential mitigation measures. ▙

December 1999

Considering National Natural Landmarks in NEPA Reviews
Park Service Issues Revised Regulations

National natural landmarks – areas designated by the Secretary of the Interior as outstanding examples of the nation's major biological and geological features – are among the environmentally sensitive resources to be considered in all NEPA reviews. These areas include terrestrial and aquatic natural ecosystems, landforms, geological features and processes, habitats of native plant and animal species, and fossil evidence of the development of life. The National Park Service has issued revised regulations (64 FR 25708; May 12, 1999, effective June 11, 1999) for the National Natural Landmark Program (36 CFR Part 62), which state (62.6(f)): "Federal agencies should consider the existence and location of designated national natural landmarks, **and of areas found to meet the criteria for national significance**, in assessing the effects of their activities under [NEPA]." (The revision is in boldface type above.)

> *"National significance*," as defined in the Department of the Interior's regulations (36 CFR 62.2), refers to an area that is one of the best examples of a biological community or geological feature within a natural region of the United States. The primary criteria for determining national significance are illustrative character and present condition of the feature. Secondary criteria include rarity, diversity, and value for science and education.

Landmark Program in Effect Since 1962

The National Natural Landmark Program was established by the Secretary of the Interior in 1962 under the authority of the Historic Sites Act. Currently, the National Registry of Natural Landmarks lists 587 sites in 48 states (all except Delaware and Louisiana), the U.S. Virgin Islands, Puerto Rico, and the Pacific Trust Territories. Approximately half are administered solely by Federal, state, county, or municipal governments; nearly one-third are privately owned; and the rest are owned or administered by a mix of public and private owners.

Designation as a landmark could have state or local planning and land use implications, but is not a land withdrawal, does not change the ownership, and does not dictate activity. The program seeks to identify and preserve nationally significant examples of the nation's natural heritage while respecting ownership interests.

In issuing the revised regulations, the National Park Service lifted a 10-year moratorium on designation of new national natural landmarks. Several thousand candidates, or "potential national natural landmarks," were identified in inventories funded by the Park Service between 1971 and 1986. Federal agencies and other organizations also may recommend sites for consideration.

Park Service Provides Requested Information for NEPA Reviews

When the National Park Service participates in scoping or reviewing a draft EIS, the Service will notify a Federal agency of a national natural landmark near a proposed action. But the National Park Service does not participate in all DOE EISs, and a NEPA Document Manager may appropriately ask the Service for information on national natural landmarks that may be affected by a proposed action or on potentially affected areas that meet the national significance criteria. For an EA, which often would not come to the Park Service's attention, it is also necessary to determine whether there could be significant impacts to any such resources.

Recommendations for DOE NEPA Practitioners; Consult with the Park Service

- When it is not clear whether a proposal might affect a national natural landmark or an "area that meets the significance criteria," contact the appropriate National Natural Landmarks Field Coordinator (box, next page) to request information needed to determine potential impacts.

- For a categorical exclusion, ensure that the proposed action meets the DOE NEPA regulations, which identify national natural landmarks as one of the environmentally sensitive resources that must not be adversely affected for a proposed action to qualify for categorical exclusion (Appendix B.(4)(iv)).

- For an EA or EIS, assess potential impacts to national natural landmarks or areas found to meet the criteria for national significance. If the action would not affect any national natural landmarks, state this in the EA or EIS.

For more information about the National Natural Landmark Program, visit the Park Service's Web site at http://www.nature.nps.gov/partner/nnlp.htm. For additional information, contact the National Natural Landmark Program National Coordinator at 202-219-8934 or a Field Coordinator. ▪ᴸ

Considering National Natural Landmarks

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National Natural Landmarks Field Coordinators

Northeast Region

CT, MA, ME, NH,
NJ, NY, RI, VT
Carol Daye
617-223-5064

PA, VA, WV
Stephen Smith
215-597-5199

National Capital Region

KY, MD, NC, VA, WV
Ann Brazinski
703-285-2558

Southeast Region

AL, FL, GA, LA, MS, PR,
SC, TN, VI
Chuck Schuler
404-562-3113

Midwest Region

AR, IA, IL, IN, KS,
KY, MI, MN, MO, ND,
NE, OH, SD, WI
Michael Gallagher
402-221-3418

Intermountain Region

CO, MT, UT, WY
Karen Scruby
303-969-2929

AZ, NM, OK, TX
Margi Brooks
520-670-6501 ext. 232

Pacific West Region

ID, OR, WA
Steve Gibbons
M-W 360-856-5700
ext. 306
Thurs. 206-220-4105

American Samoa, CA,
Guam, HI, NV
Jonathan Bayless
415-427-1427

Alaska Region

AK
Judy Alderson
907-257-2635

December 1999

Considering Essential Fish Habitat in NEPA Reviews

Avoiding adverse impacts to environmentally sensitive resources is a consideration in project planning, so these resources receive special attention – often including interagency consultation – in the NEPA process. Lessons Learned Quarterly Report *recently described regulations for considering historic properties (June 1999, page 3) and national natural landmarks (December 1999, page 12) in NEPA reviews. This article highlights requirements for considering another environmentally sensitive resource: essential fish habitat.*

The 1996 Amendments to the Magnuson Fishery Conservation and Management Act require the National Marine Fisheries Service (NMFS) to designate "essential fish habitat" for species covered by a Federal fisheries management plan. The renamed Magnuson-Stevens Act (16 U.S.C. 1801 et seq.) defines these habitats as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." These habitats are in marine and estuarine areas as well as rivers that support Federally managed anadromous fish (that is, species that return from the sea to breed in rivers).

Under the Act, Federal agencies must consult with NMFS regarding any authorized, funded, undertaken, or proposed actions that may adversely affect essential fish habitat. Although the concept of essential fish habitat is similar to "critical habitat" under the Endangered Species Act, measures recommended by the NMFS are advisory, not prescriptive. If a project would have adverse effects, NMFS must develop recommendations to avoid or offset the effects. Federal agencies have 30 days to respond in writing to those recommendations.

NMFS interim final implementing regulations 50 CFR 600, Subparts J and K, effective January 20, 1998 (62 FR 66531; December 19, 1997), specify that consultations on essential fish habitat should be incorporated into environmental review procedures already established, including those for NEPA. If a proposal has potential impacts on essential fish habitat, a draft EIS or an EA prepared for pre-approval review should contain the required provisions of an essential fish habitat assessment:

- A description of the proposed action;
- An analysis of the effects of the proposed action (and alternatives, when appropriate) on essential fish habitat and associated species;
- The agency's views regarding those effects; and
- Proposed mitigation, if applicable.

An essential fish habitat assessment should appear under its own heading in an EIS or EA, and may incorporate by reference any relevant information contained elsewhere in the document.

Essential Fish Habitat Assessment Prepared for DOE EIS

In response to NMFS comments on a draft EIS for a proposed Clean Coal project in Florida, DOE prepared and will incorporate an essential fish habitat assessment into the final EIS for the JEA Circulating Fluidized Bed Combustor Project (DOE/EIS-0289).

Recommendations for DOE NEPA Practitioners

NEPA practitioners should include essential fish habitat among the environmentally sensitive resources to be considered when assessing environmental impacts of a proposed action.

✓ In applying a categorical exclusion, ensure that the proposed action meets the requirements of DOE NEPA regulations, which specify that environmentally sensitive resources must not be adversely affected (Appendix B.(4)).

✓ If a proposed action could adversely affect the habitat of a marine or anadromous fish, consult with NMFS early during preparation of an EA or EIS.

✓ Distribute a draft and final EIS, or an EA for pre-approval review, to the appropriate NMFS Regional Coordinator if the document addresses a proposal with potential impacts on essential fish habitat.

For more information and for links to Regional Fishery Management Council Web sites, see the NMFS Office of Habitat Conservation Web site at www.nmfs.gov/habitat. **L**

NMFS Essential Fish Habitat Regional Coordinators

Northeast Region: Lou Chiarella, 978-281-9277
Southeast Region: Ric Ruebsamen, 727-570-5317
Southwest Region: Mark Helvey, 707-575-6078
Pacific Islands: John Naughton, 808-973-2935
Northwest Region: Nora Berwick, 503-231-6887
Alaska Region: Jeanne Hanson, 907-271-3029

March 2000

Applying "Plain Language" to NEPA *Federal Register* Notices

By: Rita Smith, *DOE Federal Register Liaison, Office of General Counsel*
Yardena Mansoor, *Office of NEPA Policy and Assistance*

One year ago, the President directed Federal Agencies to use "plain language" to make government writing more "responsive, accessible, and understandable" to the public (63 FR 31883; June 10, 1998). His "Plain Language in Government Writing" memorandum set specific requirements for new regulations and documents that explain how to obtain a government benefit or service, or comply with a regulation. The memorandum also expressed a broad policy for all Federal government writing: *language must serve the purpose of the communication and must be appropriate for the intended reader.*

The memorandum states that the benefits of plain language writing include saving the Government and private sector time, effort, and money. In recent *Federal Register* notices regarding NEPA matters, DOE has made progress in applying the Plain Language recommendations, but we have plenty of room for improvement. By targeting the content of NEPA notices to their purpose and readership, DOE can issue more effective notices.

In this article, we first outline content features of three types of EIS-related *Federal Register* notices and then present some plain language recommendations for writing them. (While the principles of plain language apply to all writing in the NEPA process, in this article we focus on NEPA *Federal Register* notices.)

Three EIS-related *Federal Register* Notices

DOE publishes three kinds of *Federal Register* notices in the EIS process: Notice of Intent to prepare an EIS, Notice of Availability including public involvement procedures (optional), and Record of Decision. Each notice has a distinct purpose and targeted readership, and consequently a desired content, both in terms of substance and style.

Purpose and Readership . . .

A **Notice of Intent** announces the beginning of an EIS process, invites public participation, and provides information to help the public decide whether and how to participate. The reader is not necessarily familiar with the NEPA process or the matter to be addressed in the EIS.

DOE usually publishes a **Notice of Availability** of a draft or final EIS (although a DOE notice is not required) to supplement the required Environmental Protection Agency (EPA) Notice of Availability. A DOE Notice announces the availability of the document and describes public participation activities. The readership includes people who are already informed about the EIS through their involvement in scoping and those who are not informed.

A **Record of Decision** announces and explains the decision. Readers are likely to have some knowledge of the subject.

. . . Have Implications for Substance and Style

Typically, a Notice of Intent identifies the purpose and need for agency action, the sites involved, a proposed action and alternatives that DOE proposes to evaluate, and categories of impacts that DOE would consider. A Notice of Intent also provides public participation information, such as a scoping meeting schedule and commenting procedures. A Notice of Intent should provide enough background information and technical detail for a reader with little previous knowledge of the subject.

EPA's Notice of Availability lists the EIS subject, potentially involved location(s), comment period closing date, and contact person. In contrast, a DOE Notice of Availability usually presents an overview of the EIS and provides detailed public involvement information (including schedule and procedures for a public hearing on a draft EIS), how to obtain copies of the EIS, where to examine background documents, and how to submit comments. A DOE Notice of Availability normally provides enough information for the public to decide whether to obtain the full EIS or its summary. It need not summarize the EIS or the procedural history of the NEPA process.

A Record of Decision states the decision, describes the alternatives considered, identifies the environmentally preferable alternative, explains how the agency balanced various factors in making its decision, and addresses minimizing environmental harm through mitigation. It provides a concise history of the review conducted, decisions made, any decisions deferred, and any additional NEPA review planned. Records of Decision often provide more technical details than the notices discussed above.

Plain Language Recommendations

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We base these recommendations in part on the Plain Language Action Network resources (address below).

Use Common, Everyday Words to Aid Understanding

- Use ordinary (normally short) words and phrases.

Instead of:	Try using:
adjacent to	next to
due to the fact that	because
initiate	start, begin
in the event that	if
prior to	before

- Minimize technical terms, even if plain language requires more words. An ordinary dictionary may not include technical terms. For example, instead of "nonelutable resin," try "resin from which adsorbed material cannot be separated."

- Use technical terms when needed to specify meaning. For example, "poplar" refers to a different tree in the South (*Liriodendron tulipifera*) than in the rest of the country (genus *Populus*).

- When describing a material or process, choose one appropriate term and stick with it through the document. Otherwise, the reader is likely to assume that different terms mean different things. You may list the equivalent terms, then state which one will be used throughout the notice. For example, solids that settle at the bottom of a liquid-filled tank might be called settled solids, sludge, tank bottoms, or fines; precipitate (the noun) and precipitant mean the same thing; calcining and sintering are two names for one type of thermal treatment.

- Reduce the use of abbreviations, including acronyms. DOE recently published a Record of Decision with 12 abbreviations in three sentences! Use an abbreviation for a term, project, or facility that will be named repeatedly throughout the notice. Typically, "DOE," "EIS," and commonly used site abbreviations are appropriate. Define an abbreviation the first time you use it.

Keep Sentences Short and Simple

- Keep subject, verb, and object together. Avoid separating them with parenthetical expressions, exceptions, or modifiers.

- Divide a long sentence into shorter sentences.

- Use the active voice instead of passive voice. Instead of "an EIS will be prepared" or "comments may be submitted," say "DOE will prepare an EIS" or "you may submit comments."

Construct Strong, Logical Paragraphs

- Use a topic sentence. Move unrelated information to another paragraph.

- Show logical relationships between sentences. One effective technique is to begin a sentence with a reference to something in the previous sentence – for example, "This waste. . ." or "These shipments. . . ." Another technique is to use words or phrases that indicate *sequence*, such as "first," "then," or "now;" *causality*, such as "therefore" or "as a result;" or *contrast*, such as "in contrast" or "unlike the previous case."

- Use parallel structure and avoid repetition. Typically a notice describes alternatives, each in a paragraph that mentions all relevant features. Instead, first list the features common to all alternatives, then list the unique features of each alternative.

Write to Express, Not to Impress!

Plain language problems may arise when we write as if the work were intended only for our peers or to demonstrate a depth of knowledge to someone who can fully judge its accuracy. Keep in mind, however, that NEPA public notices are primarily intended for a lay public.

Resources

For the Presidential Memorandum on Plain Language, recommendations, resources, and examples, see www.plainlanguage.gov, the Plain Language Network Web Site. (The DOE NEPA guidance on an EIS Summary, September 1998, also includes the Memorandum.) For additional information on preparing *Federal Register* notices, contact Rita Smith, 202-586-3277 or e-mail rita.smith@hq.doe.gov. **L**

*June 1999*

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 example – which often describe projects inaccurately.

The Illinois group's second study [2] 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
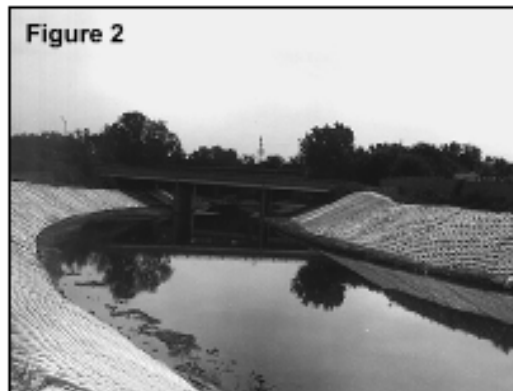
The flood control features suggested for the Hickory Creek included three different treatments of the creek banks. The banks were to be changed from their existing condition (Figure 1) to either a fabric-formed concrete embankment (Figure 2), a vertical concrete wall (Figure 3), or an earthen embankment (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.]

Improving EIS Readability

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_L**

[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.

September 1997

Using Appropriate Number of Significant Digits

What's Wrong with "480 m³ (16,951 ft³)" of Radioactive Waste?

One editorial error we frequently find in reviewing draft NEPA documents is the reporting of quantities with more digits than are "significant" – that is, more digits than are meaningful in light of the precision of the underlying data.

If a material is weighed on a scale that is precise only within a kilogram, for example, it is not meaningful to report the weight in tenths of a kilogram. By extension, a quantity calculated from several measurements can be no more precise (in terms of the number of significant digits) than the measurement with the least number of significant digits.

Reporting more than the appropriate number of significant digits may mislead the reader to think that quantities are known more precisely than is the case, and may ultimately decrease a report's credibility. Further, displaying insignificant digits makes the meaningful differences between quantities, such as the features or impacts of alternatives, harder to discern. Environmental radiation-related dose and effect estimates, for example, are rarely valid to more than one or two significant digits.

This overview is intended to remind NEPA document preparers of the need to use good judgment in reporting numerical values. For a fuller treatment of significant digits – and the related topics of rounding, scientific measurement, precision versus accuracy, and range versus point values – refer to the *DOE Fundamentals Handbook: Mathematics* (Volume 1 of 2, DOE-HDBK-1014/1-92, June 1992, on the EH Web site at tis.eh.doe.gov/techstds/standard/hdbk1014/ h1014v1.pdf), or perform a Web search using the terms *significant digits* or *significant figures* to identify other useful sites. Another reference, the American Society for Testing and Materials *Standard for Use of the International System of Units (SI): The Modern Metric System* (IEEE/ ASTM SI-10), is available for purchase at www.astm.org/ DATABASE.CART/PAGES/IEEE.htm. **LL**

Here's How it Works — A Quick Review

Identifying Significant Digits

- A non-zero digit is significant.

    Example: 48 has 2 significant digits

- Zero is significant:

    when located between two non-zero digits.

    Example: 408 has 3 significant digits

    when after the decimal and no non-zero digits follow.

    Example: 408.0 has 4 significant digits

- Zero is not significant:

    when after the decimal, but followed by non-zero digits (i.e., when used only to locate the decimal point in a quantity less than 1).

    Example: 0.048 has 2 significant digits

    when to the right of non-zero digits but before the decimal (unless context indicates otherwise).

    Example:

    500 normally has 1 significant digit, signifying a quantity between 450 and 549 (unless context indicates otherwise)

    To indicate otherwise, such as that 500 has 3 significant digits, use

    — a decimal point (500.), or
    — powers of 10 (5.00×10^2)

Arithmetic with Significant Digits

- When adding and subtracting quantities with different numbers of significant digits:

    the result has as many significant digits after the decimal as the measurement with the fewest significant digits after the decimal.

    Example: 48.134 + 1.1 = 49.2 (not 49.234)
    48 + 1.1 = 49 (not 49.1)

- When multiplying and dividing quantities with different numbers of significant digits:

    the result has as many significant digits as the measurement with the fewest significant digits.

    Example: 480 x 35.3147 = 17,000*

    * In the subtitle of this article, 480 m³ contains 2 significant digits. Converting to cubic feet (35.3147 cubic feet per cubic meter) does not increase the precision of the measure – so the converted value should be stated as 17,000 ft³.

- An exact quantity does not affect the number of significant digits in arithmetic results.

    Example:

    5 EISs (exact count) x 0.236 kg/EIS = 1.18 kg (not 1.180 kg) (where 0.236 and 1.18 each have 3 significant digits)

A Helpful Hint for EIS Glossaries

We have encouraged including a glossary to aid lay readers' understanding of specialized terms used in a NEPA document. Marking in bold or italics the first occurrence of terms that are defined in the glossary will effectively signal the reader to consult the glossary, if needed. This system would be explained in a footnote or text box at the beginning of the NEPA document and the glossary. This is an easy but excellent way to make a NEPA document more user-friendly.

When preparing a glossary for a NEPA document, consult "Glossary of Terms Used in DOE NEPA Documents," September 1998. The glossary is available on the DOE NEPA web at http://tis.eh.doe.gov/nepa/ under DOE NEPA Tools. **L**L

June 1999

Extending Public Comment Periods

Public participation is essential to the NEPA process. For the public to participate effectively, however, DOE should establish a comment period that allows enough time to study a NEPA document and prepare thoughtful comments. When accommodating a stakeholder request to extend a comment period, DOE should recognize that commentors cannot take full advantage of any extension unless DOE notifies them well before the close of the original comment period.

DOE EIS Public Comment Periods Have Varied

Under the Council on Environmental Quality NEPA regulations, agencies must allow at least 45 days for comments on a draft EIS (40 CFR 1506.10(c)). Over the last five years, approximately 40 percent of DOE's draft EISs were issued with longer comment periods, typically programmatic or site-wide EISs, and EISs of high public interest or for unusually complex projects. The average original comment period was 57 days for DOE EISs during 1994 through 1998 (table, below).

DOE extended the public comment periods beyond the originally announced date for one-fourth of these draft EISs, by an average of 32 days (with a range of 7 to 65 days). Two-thirds of these extensions applied to programmatic or site-wide EISs. (The DOE NEPA Office has no data on denials of extension requests.)

Timeliness of Extension Notice

Stakeholders generally appreciate DOE honoring their request to extend a comment period. They are not pleased, however, to receive an extension notice too late for them to take full advantage of the extension. Indeed, two-thirds (10 out of 15) of DOE's extension notices in the *Federal Register* [1] from 1994 through 1998 were published after the original comment period had closed. [2] Sometimes, though,

announcing an extension at or after the end of a comment period is unavoidable, such as when a stakeholder requests the extension late in the original comment period.

Recommendations

These recommendations apply to a public comment period for a draft EIS and also are appropriate for EIS scoping and pre-approval review of an EA.

✓ Establish the comment period thoughtfully; consider whether the minimum period is appropriate in light of likely public interest, document complexity, and project schedule needs.

✓ Strive to announce an extension quickly enough so that stakeholders may take full advantage of the additional time. The goal should be to provide notice of the extension at least a week before the original comment period expires.

✓ Use quick and effective notification methods, including phone, mail, or e-mail to known or likely interested parties, local print and broadcast media, and the DOE NEPA Web. Do not rely solely on a *Federal Register* notice, and do not delay other means of announcing the extension until a *Federal Register* notice is published.

✓ State in all comment period notices that DOE will consider late comments to the extent practicable. **LL**

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[1] *For "an action with effects of national concern," a public participation notice shall include publication in the* Federal Register *and notice by mail to national organizations who have requested such notices to be provided to them regularly (40 CFR 1506.6(b)(2)).*

[2] *The* Federal Register *requires notices that would be published after the original comment period has closed to be designated as "reopening" rather than "extending" the comment period.*

Original and Extended Comment Periods for DOE EISs, 1994 to 1998

	Number of draft EISs	Average orginal period (days)	Number extended	Average extension (days)	Average total comment period (days)
All EISs	61	57	15 (25%)	32	65
Project-specific EISs	38	52	5 (13%)	30	56
Programmatic/ Site-wide EISs	23	65	10 (43%)	33	79

March 1999

Reminder: Make Reference Materials Publicly Available

Recently, a Program Office conducting a public participation process on an environmental assessment of a controversial proposal did not make key references publicly available, after having stated that such references were available at public reading rooms in notices announcing the 45-day public comment period and at two public meetings. At the meetings, opponents of the proposal called attention to the missing references and the Department eventually decided it needed to reopen the public comment period. Please make sure that appropriate reference material is made publicly available, such as by placing copies in public reading rooms and libraries. ⌊**L**

June 1996

Reminder: Let People Know What DOE Is Doing

Some stakeholders have expressed concern that they have found out about notices and assessments of DOE floodplain and wetlands actions too late to comment, especially when notices were published only in the *Federal Register*. DOE personnel responsible for notifying the public of its opportunity to comment on DOE actions should ensure that, in addition to the required publication in the *Federal Register*, notice is sent to persons and organizations that are likely to be interested and also is published in communications media the public is likely to use. This effort is especially important for actions with short public comment periods.

The latest edition (currently January 1997) of the *Directory of Potential Stakeholders for Department of Energy Actions Under the National Environmental Policy Act* (the "yellow book") may be helpful in identifying interested organizations. The list of media in the CEQ Regulations, 40 CFR 1506(b)(3), and DOE's *Effective Public Participation Under the National Environmental Policy Act* (the "gold book") may assist in defining suitable opportunities for notification in addition to the *Federal Register*. ⌊**L**

June 1997

Responding to Comments on DOE EISs

DOE's final environmental impact statements (EIS) must respond to public comments on the draft EISs. The following guidance explains why DOE must respond to substantive comments and offers suggestions on response formats.

Regulatory Background

The Council on Environmental Quality's (CEQ) NEPA regulations require Federal agencies to assess and consider comments received on a draft EIS. The comments must be considered both individually and collectively. An agency must respond to the comments by modifying EIS alternatives including the proposed action, developing additional alternatives, supplementing or improving the analyses, making factual corrections, or explaining why the comments do not warrant further agency response (40 CFR 1503.4 (a)). All substantive comments received on a draft EIS (or a summary of the comments if they are exceptionally voluminous) should be attached to the final EIS regardless of whether the agency believes they merit individual discussion in the body of the document (40 CFR 1503.4(b)).

In its "40 Most Asked Questions" (Questions 25 and 29a) (46 FR 18026, March 23, 1981), CEQ notes that responses to comments should result primarily in changes to the text of the EIS, "not simply a separate answer at the back of the document." However, CEQ also suggests that specific answers to "each significant comment" be included in the final EIS and may be placed in an appendix. Agencies may group similar comments together and prepare a single answer for each group.

Planning and Content

* Preparing responses to comments can be expensive and time-consuming, so the approach to organizing the responses should be planned carefully, taking into account the complexity of the issues involved, the number of comments anticipated, and other relevant factors.

* Response formats should be user-friendly. Commentors should be able to easily find DOE's responses to their particular statements. Readers should be able to determine which commentor made a particular comment. Comments may be—but are not required to be—reproduced (perhaps reduced in size) and included with the final EIS.

* Responses should be respectful in tone, informative and factual. Responses should state whether, how, and where DOE changed the EIS as a result of comments.

Formats of Responses to Comments

The following describes several different approaches to presenting responses to comments. While there is no "right" or "wrong" approach, one may be better than another for certain circumstances.

1. **Address each comment individually**

   Each comment letter received and each hearing transcript/meeting summary is reproduced verbatim. Frequently, each comment is given a code and the code appears with a marginal bar to indicate the text that is designated as the "comment." A response is prepared for each comment and printed following or adjacent to the comment. No attempt is made to summarize or restate the comments or to group the comments according to subject matter or EIS section.

   > EIS Example:
   >
   > Dual Axis Radiographic Hydrodynamic Test Facility, LANL Los Alamos, NM DOE/EIS-0228 (September 1995)

   This approach ensures that all comments are addressed and accurately represented. Frequently, however, the same response is given to many similar comments, and this format may make changing such responses difficult. Further, it is difficult to discern an overview of the public comments on a particular issue. This approach is most appropriate when DOE receives a small number of comments or comments on generally different topics.

2. **Group comments according to EIS section or subject matter**

   Individual comments from comment letters and hearing transcripts/meeting summaries are organized according to sections of the EIS or by subject matter. Multiple comments on the same section or subject are addressed only once. Responses to similar comments are referenced to avoid repetition.

   > EIS Example:
   >
   > Spent Nuclear Fuel Management and INEL Environmental Restoration and Waste Management Programs, Idaho Falls, ID, DOE/EIS-0203 (April 1995)

   This approach is readable and efficient. However, by grouping comments, the commentor's original context may be lost.

Responding to Comments on DOE EISs

(continued from previous page)

3. **Synthesize similar comments into one comment for response**

    Similar comments on the same issue are synthesized into one comment and one response is provided, which avoids repetition. This enables DOE to respond in one place to commentors with differing viewpoints on the same issue.

    > EIS Example:
    >
    > Waste Isolation Pilot Plant, Carlbad, NM
    > DOE/EIS-0026-FS
    > (January 1990)

    However, DOE must include every point raised in the comments for a particular subject. Each comment must be understood in the context of the entire submission and accurately represented in the comment summary. Adequately incorporating all of the comments to capture the commentors' points can be very time-consuming and resource-intensive.

    This approach is most appropriate when a large number of comments is received and sufficient time is available to pay careful attention to the inclusion of all comments and the preparation of complete responses.

4. **Combination**

    When appropriate, comments on certain topics can be synthesized and comments on other topics grouped together or responded to individually. This approach is sometimes optimal.

    > EIS Example:
    >
    > Proposed Nuclear Weapons Nonproliferation Policy Concerning Foreign Research Reactor Spent Nuclear Fuel
    > DOE/EIS-0218
    > (February 1996)

5. **Comment-response document?**

    A "comment-response document" is not required by either the CEQ or the DOE NEPA regulations and may not be warranted when there are a small number of comments. DOE must nevertheless be able to show that it has in fact *"assess[ed] and consider[ed]"* all comments and made the appropriate changes in the final EIS. **L_L**

September 1996

Addressing Public Comments on a Final EIS

Q: *How should DOE address public comments received on a final EIS?*

A: Comments DOE receives on a final EIS before the Record of Decision has been issued should be reviewed to first determine whether the comments present "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." If it is clear that the comments do present such information, then a supplemental EIS is required [40 CFR 1502.9(c) and 10 CFR 1021.314(a)]. If it is unclear whether the comments present such information, then a Supplement Analysis must be prepared [10 CFR 1021.314(c)].

If it is clear that the comments do not require a supplemental EIS, or such a determination is made based on a Supplement Analysis, then DOE may issue a Record of Decision. The Department's approach has been to address such comments in the Record of Decision. This need not be an exhaustive treatment, but should include the conclusion that none of the comments necessitate the preparation of a supplemental EIS. Comments that are not adequately covered in the final EIS should be addressed; otherwise, DOE may refer the commenter to the appropriate section in the final EIS.

Comments on a final EIS that DOE receives after a Record of Decision has been issued should be considered in light of the regulatory requirements cited above, and responded to as appropriate in the normal course of business. [Also see 10 CFR 1021.315(d): DOE may revise a ROD at any time.] ⌐⌐

September 1995

EIS Distribution: Common Sense Approaches

Is the Department required to distribute an entire draft or final EIS to all? We could save money and time by distributing only the Summary.

Several practical considerations bear on this question. The costs of printing and distributing large documents are significant, and agencies have been loudly criticized for sending such documents to people who did not want or need them. On the other hand, DOE wants to provide full information promptly to those who do want it. Council on Environmental Quality regulations (40 CFR 1502.19) state the requirements for distributing EISs. Generally, agencies must circulate the entire draft and final EIS; if the EIS is unusually long (many EISs fit in this category), agencies may circulate the Summary instead.

There are exceptions to this rule, however.

An entire draft EIS must be sent to:

1. Any Federal Agency that has jurisdiction by law or special expertise with respect to any environmental impact involved and any appropriate Federal, state, or local agency authorized to develop and enforce environmental standards.

2. The applicant, if any.

3. Any person, organization or agency requesting the entire draft EIS.

The rules are the same for final EISs, plus: an entire EIS must be sent to anyone who may have provided "substantive comments" on the draft EIS. If in doubt, we recommend providing the entire document or consulting the Office of NEPA Policy and Assistance for advice when that may not be appropriate (e.g., see hint below regarding letter-writing campaigns).

EIS managers should keep in mind that, for both draft and final EISs, 40 CFR 1502.19 requires that, "if the agency circulates the summary and thereafter receives a timely request for the entire statement and for additional time to comment, the time for that requestor only shall be extended by at least 15 days beyond the minimum period."

Helpful Tips

♦ To save time and money, several EIS managers have asked potential EIS reviewers whether they want to receive the entire EIS, only the Summary, or certain volumes. Post card solicitations have worked well; solicitations at scoping meetings have also been successful. We recommend that solicitations describe each EIS volume, including its page length, so that people can informedly decide what they want to receive.

♦ Transmittal letters distributing the Summary should identify the make-up of the full EIS, the size of each part, and how to obtain the parts one may want.

♦ Although not necessarily required, stakeholders affected by the preferred alternative and major environmental interest groups generally should be sent the entire document unless they have said they do not want it.

♦ If hundreds of persons send virtually identical letters to DOE expressing a simple opinion on the proposed action (e.g., "Not in my backyard"), then it may be inappropriate to send each of them the entire EIS. Send a Summary and a transmittal letter describing the remaining available documents, as discussed above, and make it very convenient to request and promptly obtain additional information. ⌐L

March 1996

Coordinate with Office of Congressional, Public and Intergovernmental Affairs on EIS Distribution

Recent experience managing the approval and distribution of an unusually large number of draft and final environmental impact statements (EISs) in a short time has highlighted the importance of effectively coordinating with the Office of Congressional, Public and Intergovernmental Affairs (CP) on such distributions. Based on lessons learned during this experience, the Office of NEPA Policy and Assistance and CP make the following recommendations:

- NEPA Document Managers should consult with CP staff early about schedules and for help in preparing communications plans and EIS distribution lists. CP should be involved even if approval of the EIS has been delegated to a field office.

- Allow three days for "final" coordination with CP, which should occur after the EIS is approved, normally while the document is being printed. Final coordination may include setting up a precise timeline for congressional notifications, stakeholder outreach and media activities; media spokespeople should be identified as well. Note that CP-1 concurrence is required on letters transmitting EISs to key government officials (i.e., members of Congress, governors, heads of tribes and Indian tribal associations.)

- Even when a press release has been approved as part of the communications plan, CP does not consider it a final document. The final press release needs to be reviewed for timeliness and context and approved by CP-2.1 and the Office of the Secretary.

- In the past, DOE has often distributed EISs on Fridays so that they could be filed the same day with the Environmental Protection Agency (EPA). EPA would then publish a notice of availability in the *Federal Register* the following Friday. A "Friday-driven" schedule is not effective for successful media and congressional outreach, however. Congress is not generally well-staffed on Fridays, making it difficult to ensure appropriate understanding and awareness of the NEPA documents and process. On the media side, many trade publications "close" on Friday, making it difficult for them to cover the news; in addition, the press perceives that releasing news on Friday means the organization is trying to bury news. For all these reasons, CP may want to conduct notifications and media outreach between Monday and Thursday before completing the distribution and filing with EPA.

For further information regarding CP's role in the NEPA process, please contact Steve Lerner, CP, at (202) 586-5470. A general discussion of EIS distribution procedures appeared on page 6 of the June 1995 edition of the *Lessons Learned Quarterly Report*. **L**L

March 1997

Publishing a Draft EIS on DOE NEPA Web; Timing Is Key

Web publication of a draft EIS increases the document's accessibility at low cost and makes the draft available immediately for interested parties to browse, transfer, or print sections at will. To be most useful, though, a Web-published draft EIS should be accessible from the very beginning of the public comment period, which means that the document must be prepared for Web publication during the normally brief period between approval of the EIS and publication of the notice of availability.

To facilitate timely Web publication of a draft EIS on the DOE NEPA Web, we emphasize the following recommendations based on implementation of the NEPA Document Electronic Publishing Standards and Guidelines, issued October 1998. (See related article in the *Lessons Learned Quarterly Report*, September 1998, page 6.) While these tips apply to Web publishing for any kind of NEPA document, they are especially important to facilitate the public comment process for a draft EIS.

Tips for Success: Plan Early for Web Publishing

*   *Use the Web Standards*: Start out right. Prepare and submit the electronic file of a NEPA document in Web-ready format: that is, portable document format (pdf) or hypertext markup language (html). Microsoft Word 6.0 and WordPerfect 6.0 and their more recent versions directly convert files to html. When a NEPA Document Manager transmits an electronic file in software that does not conform to these standards, the document cannot be directly posted on the Web.

    Information on Web publishing standards is provided in the EH Electronic Publishing Standards and Guidelines (updated April 1999) and the 1998 NEPA guidance referred to above, both available via the DOE NEPA Tools module of the DOE NEPA Web (http://tis.eh.doe.gov/nepa/).

*   *Coordinate Early*: The NEPA Document Manager should coordinate early with the DOE NEPA Webmaster to identify technical and timing requirements.

*   *Certify:* The NEPA Document Manager or NEPA Compliance Officer should complete a DOE NEPA Document Certification and Transmittal Form, also available via the DOE NEPA Tools module, to ensure that the DOE NEPA Webmaster receives the correct electronic file. *Please do not lock or password-protect these files because EH must open these files during publishing.*

Server Reports Available

The NEPA Compliance Officer or Document Manager may request a server report of electronic access to a draft EIS and other NEPA documents. The server report profiles users by country, region, city, state, province, and most active organizations, and indicates kilobytes downloaded or transferred to the user.

To coordinate Web publication of a draft EIS, to request a server report, or for further information on the DOE NEPA Web resources or Web publishing standards, contact Lee Jessee, DOE NEPA Webmaster, at lee.jessee@eh.doe.gov, or phone 202-586-7600. ⌐└

September 1999

Distributing a Record of Decision Makes Sense

Distributing copies of the Record of Decision to organizations and individuals who received a Final EIS is logical and courteous, though not required. After all, people to whom we send a Final EIS either have expressed their interest in the proposed action earlier or DOE has concluded on its own that they should receive the document. In either case, the small additional effort and expense to inform these people of the outcome of the NEPA process normally is easily justified. Of course, the NEPA Document Manager also should make the Record of Decision available in the relevant public reading rooms. The Office of NEPA Policy and Assistance posts Records of Decision on the DOE NEPA web at http://tis.eh.doe.gov/nepa/ under DOE NEPA Analyses. ▪L

June 1999

Label an EA for Pre-Approval Review

The Office of NEPA Policy and Compliance notes that on several occasions EAs were provided to States and Tribes (and others) for pre-approval review with no indicator of their status, and these EAs were therefore indistinguishable from approved EAs. To avoid such confusion, we recommend labeling an EA on its cover to indicate its status as being "For Pre-Approval Review." ▪L

September 2000

Supplement Analysis Questions and Answers

Council on Environmental Quality (CEQ) NEPA regulations (40 CFR 1502.9(c)) specify that an agency shall prepare a supplemental (draft or final) EIS if there are substantial changes to a proposal or significant new circumstances or information relevant to environmental concerns. *When it is unclear whether an EIS supplement is required*, DOE NEPA regulations require preparation of a supplement analysis that discusses the pertinent circumstances (10 CFR 1021.314 (c)). The supplement analysis serves as the basis of a DOE determination that an existing EIS should be supplemented, a new EIS should be prepared, or that no further NEPA documentation is required.

Q: *Which DOE official has authority to approve a supplement analysis and make the associated determination?*

A: Under the DOE NEPA Order (DOE O 451.1A, paragraph 5a(11)), a Secretarial Officer or Head of a Field Organization, for matters under the office's purview and when required by the DOE NEPA regulations, prepares a supplement analysis and, with the concurrence of DOE counsel, makes a determination based on the analysis. The responsibility for preparing a supplement analysis includes the obligation to assure its accuracy and adequacy. Preparing a supplement analysis and using it to determine the need for further NEPA review (that is, are the changes "substantial," are the new circumstances or information "significant"?) is parallel to the authorities in paragraph 5a(9) to issue an EA and determine that impacts of a proposed action are significant and an EIS is required, or that impacts are not significant and an EIS is not required.

Q: *Does a supplement analysis need a NEPA Document Manager?*

A: Although the DOE NEPA Order does not explicitly require it, designating a NEPA Document Manager for a supplement analysis makes good management sense. Preparation of a supplement analysis is more likely to be efficient, timely, and technically correct when someone has clear responsibility, especially when more than one organization is involved. **L L**

December 1998

Q: *Who approves supplement analyses and how are they numbered for publication and archival purposes?*

A: DOE Order 451.1 (NEPA Compliance Program), section 5a(11), assigns supplement analysis responsibilities to Secretarial Officers and Heads of Field Offices. A supplement analysis is a NEPA determination document, similar to a determination to prepare an EA or an EIS. If EA and EIS determination authority has been further delegated to subsidiary field organization managers, they too would have the authority to approve supplement analyses and make corresponding determinations. As for numbering, supplement analyses are given the same number as the related EIS, with additional identifiers. For example, if the EIS in question was DOE/EIS-0001, the first supplement analysis would be numbered DOE/EIS-0001-SA1; the second, DOE/EIS-0001-SA2; and so forth. The program or field office that would prepare and approve the supplement analysis would have the appropriate number printed on the document. Program and field offices also should provide the Office of NEPA Policy and Assistance with five copies and an electronic disk of each supplement analysis, as for EAs and EISs.

Q: *When are supplement analyses needed and can they be prepared before the Record of Decision?*

A: DOE must supplement a draft or final EIS if there are substantial changes in the proposed action or significant new circumstances or information relevant to environmental concerns (see 10 CFR 1021.314 and 40 CFR 1502.9(c)). When it is not clear whether or not a supplemental EIS is required, DOE prepares a supplement analysis to inform three possible decisions: (1) prepare a supplemental EIS, (2) prepare a new EIS (or reissue a draft EIS) or (3) no further NEPA documentation is required. As for timing, a supplement analysis can be prepared at any time after issuance of a draft or final EIS, regardless of whether a Record of Decision has been issued. The need for a supplement analysis is triggered by subsequent changes in the basis upon which an EIS was prepared, and the need to evaluate whether or not the EIS is adequate in light of those changes. If the answer is obvious, a supplement analysis is not needed. **L L**

March 1997

Adopting Another Agency's EA and Finding of No Significant Impact

Q: *May DOE adopt another agency's EA and Finding of No Significant Impact if DOE was not a cooperating agency?*

A: Any Federal agency may adopt another Federal or State agency's EA and is encouraged to do so when such adoption would save time or money. In deciding that adoption is the appropriate course of action, DOE (as adopting agency) must conclude that the EA adequately describes DOE's proposed action and in all other respects is satisfactory for DOE's purposes. Alternatively, DOE may add necessary information by adding a cover sheet. [For example, the originating agency's action may be to issue a permit for a proposed activity, whereas DOE's action may be to fund the activity.] Once DOE determines that the originating agency's document is adequate for DOE's purposes, possibly after adding information, DOE would assign an EA number and transmit the EA to the State(s), Indian tribes, and, as appropriate, the public for preapproval review and comment, unless the originating agency has already done so equivalently through its public involvement process. In the latter case, it would be prudent to consult with States and Indian tribes to ensure that they agree that they have been provided an adequate preapproval review opportunity. DOE, after considering all comments received, would issue its own Finding of No Significant Impact, if appropriate. All records should be archived as with any other EA. **⌐L**

September 1995

Adopting Another Agency's EIS or EA

By: Beverly Stephens, *Office of NEPA Policy and Assistance (on detail)*

To make the NEPA process efficient, the Council on Environmental Quality (CEQ) encourages agencies to adopt, where appropriate, draft or final EISs (or portions thereof) prepared by other Federal agencies. CEQ recognizes three cases where an EIS prepared by another Federal agency can be adopted (*Memorandum to Agencies Containing Guidance on Agency Implementation of NEPA Regulations*, 48 FR 34263, July 28, 1983*).

Cooperating Agency May Adopt a Lead Agency's EIS

The first case is when a cooperating agency wishes to adopt a final EIS prepared by a lead agency. After independently reviewing the EIS to ensure that its comments have been satisfied and that its proposed action is substantially the same as the action described in the EIS, the cooperating agency may adopt the EIS without recirculating it (40 CFR 1506.3(c)). An agency cannot adopt another agency's record of decision, however, but must prepare its own (or issue one jointly with another agency).

Adopting an EIS When the Proposed Action is Substantially the Same

The second case is when an agency has not participated in the preparation of an EIS as a cooperating agency, but its proposed action is substantially the same as the action described in the original EIS. The adopting agency must perform an independent evaluation of the statement to determine that the EIS satisfies the adopting agency's NEPA procedures, and the agency must recirculate the document (i.e., distribute and file with the Environmental Protection Agency) as a final EIS before issuing a record of decision.

Adopting an EIS When the Proposed Action is *Not* Substantially the Same

In the third case, an agency's proposed action is not substantially the same as the action described in the original EIS. As in the second case, the adopting agency must perform an independent evaluation, but in this case the adopting agency must recirculate the EIS as a draft (40 CFR 1506.3(b)) before preparing a final EIS and issuing a record of decision.

Other CEQ Provisions for Certain Cases

Finally, CEQ regulations provide that an adopting agency must specify: (1) when the EIS it is adopting is not final within the agency that prepared it, (2) when the statement's adequacy is the subject of pending litigation, or (3) when the action it assesses is the subject of a referral to CEQ under 40 CFR Part 1504 (40 CFR 1506.3(d)).

Adopting an EA

Although CEQ regulations are silent on whether an agency may adopt an EA, CEQ's memorandum encourages agencies to develop procedures for adoption of EAs prepared by other agencies. In response to the question, "May DOE adopt another agency's EA and finding of no significant impact if DOE was not a cooperating agency?," DOE has provided the following guidance (*Frequently Asked Questions on the Department of Energy's National Environmental Policy Act Regulations,* revised August 1998, Question 15*):

> Any Federal agency may adopt another Federal or state agency's EA and is encouraged to do so when such adoption would save time or money. In deciding that adoption is the appropriate course of action, DOE (as the adopting agency) must conclude that the EA adequately describes DOE's proposed action and in all other respects is satisfactory for DOE's purposes. Alternatively, DOE may add necessary information by adding a cover sheet. (For example, the originating agency's action may be to issue a permit for a proposed activity, whereas DOE's action may be to fund the activity.)

Once DOE determines that the originating agency's document is adequate for DOE's purposes, possibly after adding information, DOE would assign an EA number and transmit the EA to the states(s), Indian tribes, and, as appropriate, the public for preapproval review and comment, unless the originating agency already has done so equivalently through its public involvement process. In the latter case, it would be prudent to consult with the states and Indian tribes to ensure that they agree that they have been provided an adequate preapproval review opportunity. DOE, after considering all comments received, would issue its own finding of no significant impact, if appropriate.

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* *Included in the DOE NEPA Compliance Guide and on the DOE NEPA Web.*

Adopting Another Agency's EIS or EA

(continued from previous page)

Performing an Independent Evaluation is Key

Because it is each agency's responsibility to comply with NEPA, the adopting agency must perform an independent evaluation of the document to be adopted. For this purpose, the EIS and EA checklists developed by the Office of NEPA Policy and Assistance can serve important functions: the checklists can remind NEPA practitioners of the applicable requirements and provide records of the independent evaluations. Finally, the fact that the adopting agency performed an independent evaluation should be explained in the adopted EIS or EA if it is recirculated, or, if not recirculated, explained in the finding of no significant impact or record of decision. **L**_L

June 2000

Application of DOE NEPA Regulations Regarding Procurement

Section 1021.216 of the Department's NEPA regulations applies to competitive and limited-source procurements, to awards of financial assistance by a competitive process, and to certain joint ventures entered into as a result of competitive solicitations. (Parts of section 216 apply as well to sole-source procurements and joint-ventures and to non-competitive awards of financial assistance.) These provisions, used successfully in the past in the Clean Coal Technology Program, enable the Department to make progress in procurement before completing the NEPA process.

The Department increasingly is exploring contracting opportunities that allocate more of the economic risk of its proposed actions to the private sector than in the past. Such "privatization" approaches pose challenges in integrating the NEPA and procurement processes because, in many cases, only the candidate vendors can provide information that may be needed to complete the NEPA process. On the other hand, it will often be appropriate to complete the NEPA process before proceeding with the procurement — for example, to support decisions on the procurement objectives.

A further challenge in integrating the NEPA and procurement processes is rooted in the tendency of procurement activities to limit the choice of reasonable alternatives or prejudice programmatic decisions. An attempt to complete the NEPA process before the procurement by covering all possible approaches in a so-called "bounding" NEPA analysis might yield an inadequately detailed analysis or one that misses a technology that a vendor might later propose; in such cases, the NEPA document may then need to be supplemented or redone. Alternatively, section 216 enables the Department to make progress in the procurement by considering environmental factors in the selection process as follows:

♦ When relevant in DOE's judgment, DOE specifies in its solicitation that offerors submit in their proposals environmental information reasonably available to them.

♦ DOE independently verifies the accuracy of the information and, for offers in the competitive range, prepares an "environmental critique" based on an offeror's data or supplemental information. The critique is subject to the confidentiality requirements of the procurement. See section 216(f) and (g) for details.

♦ DOE prepares a publicly available environmental synopsis, based on the critique, to document the consideration given to environmental factors. After selection is made, the synopsis shall be filed with the Environmental Protection Agency.

♦ DOE prepares an EA or EIS, as appropriate, before taking any action pursuant to the contract or award of financial assistance (except for allowable interim actions) and incorporates the environmental synopsis into that document. If the NEPA process is not completed before contract award, then the contract should be contingent.

Key Points for the Request for Proposals

♦ Require needed environmental data and analyses to be provided as a part of the offeror's proposal.

♦ Indicate that environmental factors will be among the factors to be considered in contract award.

♦ If the NEPA process is not completed before contract award:

– Limit contracted activities to only those allowable under Council on Environmental Quality and DOE NEPA regulations regarding interim actions (40 CFR 1506.1 and 10 CFR 1021.211, respectively) until the NEPA process is completed.

– As appropriate, require offerers to submit further data to support DOE's completion of the NEPA process. ⌐ᴸ

March 1996

Procedures for an Environmental Critique and Synopsis

Environmental Critique

When DOE will not complete a required EA or EIS for a proposed action before making a source selection related to implementing the action, the DOE NEPA Regulations (10 CFR 1021.216) provide an environmental review process synchronized with the DOE procurement process. DOE specifies in its solicitation documents that offerors shall submit reasonably available environmental data and assessments, and the part evaluation of those materials would play in the source selection. For offers in the competitive range, DOE prepares and considers a confidential "environmental critique" before making a selection in the procurement. The critique discusses the salient characteristics of each offer and how the offers differ in their potential environmental impacts.

Q: *Who prepares, and who approves, an environmental critique?*

A: The environmental critique supplements the procurement process. The procurement team may include staff with the qualifications to assess the environmental information (including independently evaluating and verifying the offerors' submittals) and prepare the critique.

Environmental Synopsis

In the interest of public disclosure, DOE will prepare an "environmental synopsis" based on the environmental critique (10 CFR 1021.216(h)). The synopsis documents DOE's consideration of environmental factors in the selection process, yet excludes from disclosure and protects information regarding the offers that DOE is not authorized to disclose. After making a selection in the procurement, DOE (with the assistance of the Office of NEPA Policy and Assistance) files the synopsis with the Environmental Protection Agency and makes it publicly available. The synopsis is incorporated into any NEPA review that may be prepared for the action.

Q: *Who prepares the environmental synopsis? Who approves it?*

A: The environmental synopsis must be prepared by people who are privy to the (confidential) environmental critique. The synopsis should be acceptable to the NEPA document preparation team, including counsel and (for an EIS) the Office of NEPA Policy and Assistance. The approval authority, however, rests with the appropriate supervising manager in the organization that is primarily responsible for preparing the EIS or EA. **L**L

December 1998

Applying Categorical Exclusions

[The following guidance was part of an article on an Inspector General report concerning the appropriate use of two similar categorical exclusions: B3.6, bench-scale research facilities, and B3.12, microbiological and biomedical facilities.]

Recommendations for NEPA Practitioners

✔ Several categorical exclusions may need to be considered to determine which best matches the scope of a proposed action and thus ensure that a categorical exclusion is the appropriate level of NEPA review. Pay particular attention to the requirements for applying categorical exclusions at 10 CFR 1021.410, as well as the integral elements for classes of actions in Appendix B to DOE's NEPA regulations. Consider not just what is allowed under a categorical exclusion, but also what is disallowed.

✔ Accurately defining the scope of a proposed action is essential to determining the appropriate level of NEPA review, including a categorical exclusion. For example, the NEPA review for the construction and operation of a facility must be based on its anticipated uses over the reasonably foreseeable future, not just initial uses.

Consider Which Categorical Exclusion Applies

There may be examples other than B3.6 and B3.12 where similar categorical exclusions will need to be thoughtfully considered to best match the scope of a proposed action to a categorical exclusion. For example, categorical exclusion:

• A7 applies to the transfer, lease, disposition, or acquisition of property when the property use would remain unchanged; that is, the types and magnitude of impacts would remain essentially the same.

• B1.24 applies to the transfer, lease, disposition, or acquisition of uncontaminated structures and the land needed to transfer the structures when the use would be different but the impacts would remain virtually the same as before the action.

• B1.25 applies to the transfer, lease, disposition, or acquisition of uncontaminated land for habitat preservation or wildlife management and only associated buildings that support these purposes. **L**L

[excerpt]
March 2000

Better Planning and Coordination Needed for Field Office Project EIS

The approval process for a recently issued draft EIS was encumbered by problems that could have been avoided by better planning and teamwork between Headquarters and the Field Office that prepared the EIS. The principal process deficiency was not involving the decision maker early in the preparation of the EIS.

The Secretarial Officer, who had been well aware of the proposed action, was not alerted to the timing and details of the draft EIS until it was presented for approval. The Secretarial Officer immediately noted that the proposal involves issues of national significance that the EIS did not appear to address adequately, and directed a high-level review of the matter. Several months and substantial resources were needed for EIS improvements. This situation could have been avoided had the following lessons been put into practice:

• It is important to involve the decision maker early in the EIS process. Decision makers will not always agree with staff about what the key issues are and how to address them.

• Establishing and maintaining good communications among Field and Headquarters EIS preparation team members, management, and the decision maker is essential. For high-profile and urgent EISs, an executive committee type of management structure promotes efficient preparation of the EIS and avoids last minute disruptions and wasted effort. Successful strategies have included an Executive Committee (the decision maker and affected/involved Secretarial Officers), and one or more technical and management teams. **L**_L

In the example at issue, further difficulties were encountered in distributing the draft EIS after approval. For example, Members of Congress that should have been briefed before completing the general distribution were unavailable because of a holiday recess. This highlights the need to:

♦ Coordinate early with the Office of Public Affairs and the Office of Congressional and Intergovernmental Affairs.

♦ Develop a communications plan early with appropriate milestones identified. Don't underestimate the need for such planning.

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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 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.

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. LL

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