Effectiveness of the NEPA Process

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

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

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

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

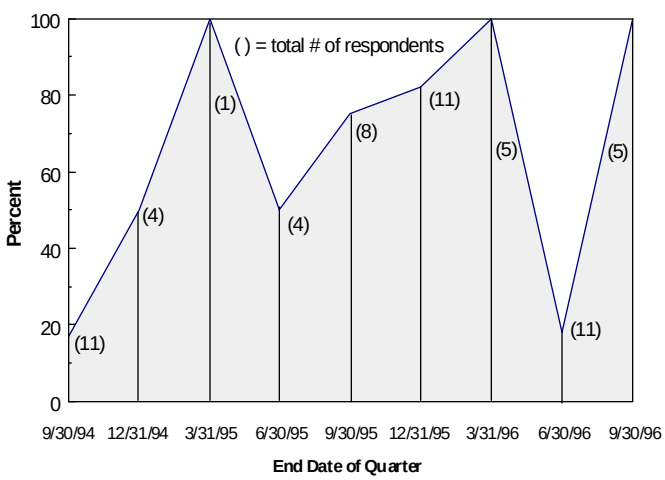

Figure 1

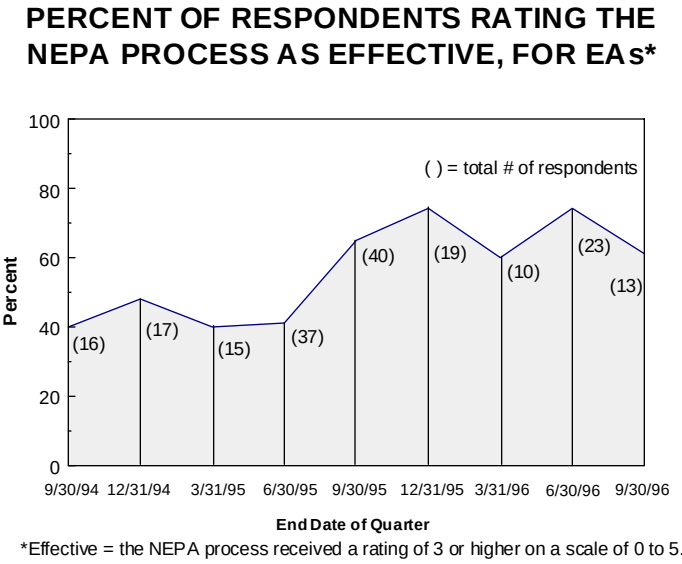

Figure 2

EIS Cost and Completion Times Data

Completion Time Facts

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

Cost Facts

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

EISs

Bonneville Power Administration

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

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

Richland Operations Office/ Environmental Management

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

ENVIRONMENTAL PROTECTION AGENCY (EPA) RATING DEFINITIONS

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

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

EA Cost and Completion Times Data

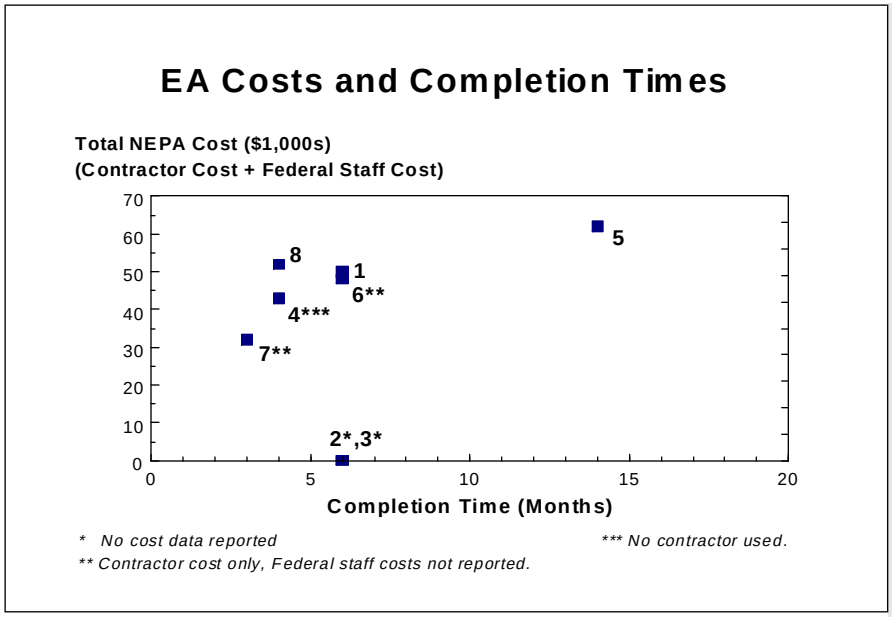

Figure 3

Completion Time Facts

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

Cost Facts

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

EAs

Albuquerque Operations Office/ Los Alamos Area Office/ Environmental Management
1 = Effluent Reduction EA, Los Alamos, New Mexico, DOE/EA-1156 ($10,000 Federal cost, $40,000 contractor cost; 6 months)

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

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

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

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

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

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

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

Analysis of EA and EIS Cost and Time Outliers

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

Approach

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

Results

Common factors associated with the outliers are summarized below.

1. Short Completion Times

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

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

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

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

2. Long Completion Times

Four of the 5 EISs with long completion times (more than 61 months) were Power Marketing Administration (PMA) documents; the fifth involved a non-PMA electrical transmission line project. (These EISs were also among the lowest cost EISs discussed below.) In one case, litigation associated with a proposed marketing plan was cited as the reason for a lengthy delay. For the others, common factors included that the proposals involved:

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

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

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

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

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Analysis of EA and EIS Cost and Time Outliers

(continued)

3. Lowest Cost

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

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

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

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

4. Highest Cost

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

No common thread was apparent for the 8 most costly EAs (more than $420,000). More than one-half also had relatively long completion times (more than 26 months), but only one was among the long completion time outlier group. In two cases, the need to respond to public comments and prepare comment response documents was cited as a cost inflator. Finally, as noted above, preparation by a management and operations contractor reportedly contributes to high EA costs at a major DOE weapons complex site.

Summary

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

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

EA and EIS Cost and Time Trend Analysis

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

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

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

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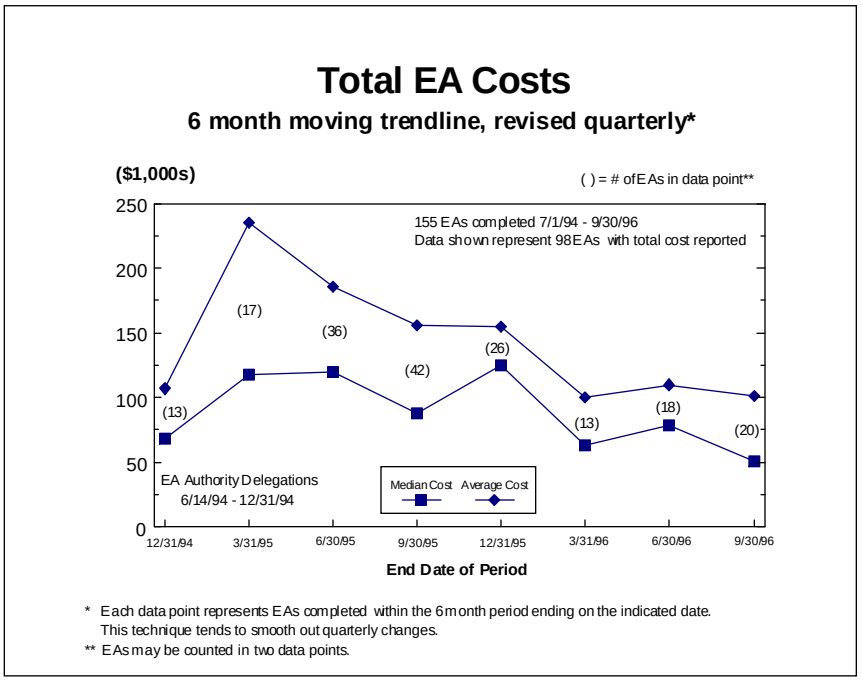

Figure 4

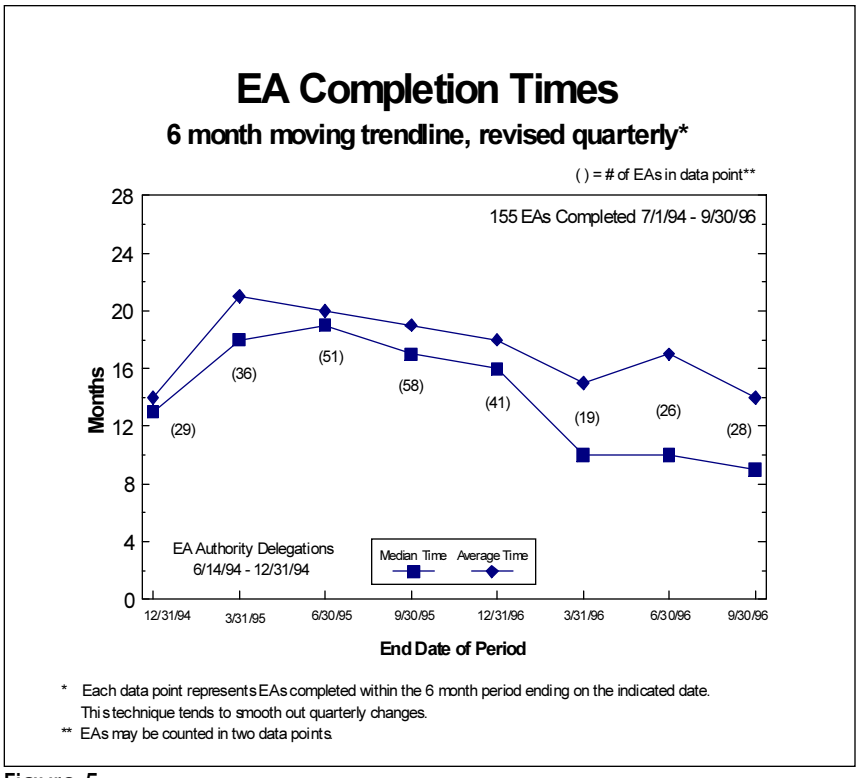

Figure 5

EA and EIS Cost and Time Trend Analysis

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

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

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

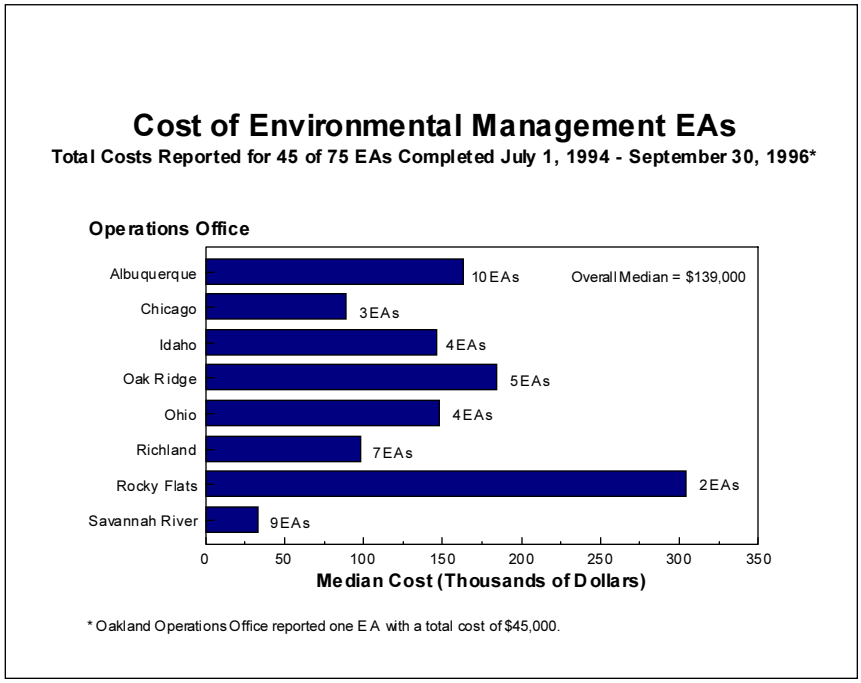

Figure 6

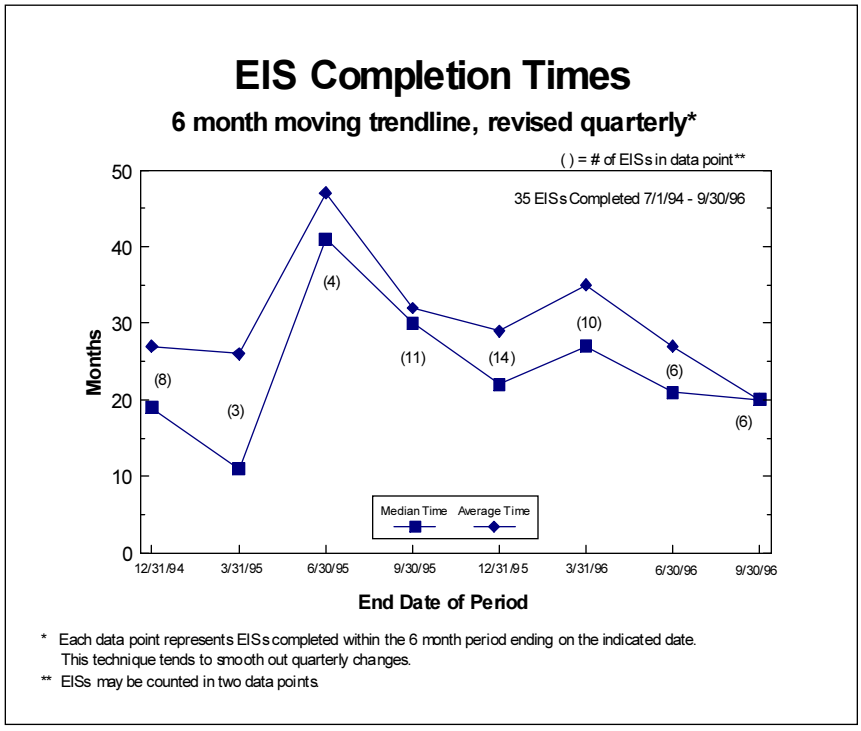

Figure 7

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Evaluation Form

How are we doing?

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

_____

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

_____

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

_____

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

_____

_____

Your name (optional) _____

FROM:

Stamp

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