

ARGONNE NATIONAL LABORATORY

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April 17, 1985

Mr. W. A. Nixon
Division of Fuel Cycle and Material
Safety
Office of Nuclear Material Safety
and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Nixon:

In response to your request, we have revised our November 14, 1984, estimate of time and effort required to prepare a Supplemental Environmental Impact Statement (SEIS) for the decommissioning of the Kerr-McGee West Chicago facility.

Our previous estimate indicated that the ANL effort to support preparation of a Draft SEIS for evaluating two disposal/storage alternatives at the West Chicago site and one at each of three alternative sites would be about 2.8 person-years at a total cost of \$250 K. This estimate is now revised based on the scope of work outlined in the NRC staff report on preparation of the SEIS (March 22, 1985).

The revised scope of work required that in addition to the West Chicago site, six clay/shale quarry sites in Illinois should be analyzed on an equal basis as to the impacts of permanent disposal of the rare earths facility wastes. Based on this requirement and the assumptions outlined in Attachment 1, we estimate that starting in May 1985, it would take approximately 16 months to publish a Draft SEIS (see Attachment 2). The ANL effort would be about 3.6 person-years, or a total cost of \$365 K of which \$149 K would be needed in FY85 and \$216 K in FY86 (see Attachment 3).

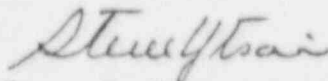
The abovementioned schedule and cost estimates could be significantly reduced if the six alternative sites were screened on a qualitative level by ANL at an early stage and narrowed down to only two sites for further detailed analysis and comparison with the West Chicago site. By doing so, we estimate that it would take approximately one year to publish a Draft SEIS and the cost for ANL effort would be about \$280 K. We recommend this approach be taken to prepare the Draft SEIS.

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April 17, 1985

If you have any questions or need further information, please call.

Sincerely,



Steve Y. Tsai
Environmental Research Division

SYT:mz

Attachments

cc: A. Hodgdon, OELD
A. J. Dvorak
P. A. Merry-Libby

Attachment 1: Key Assumptions for Estimating Costs for Preparation of
the Draft SEIS

1. A maximum of eight alternatives at seven sites will be analyzed in detail. The alternative sites should be at least as good as the West Chicago site from a hydrogeological point of view.
2. At present the seven sites consist of West Chicago site and six clay/shale quarry sites. Other alternative site(s) recommended by the state of Illinois, with NRC concurrence, will replace the clay/shale quarry site(s) to maintain a total of only six alternative sites.
3. The proposed schedule envisions no out-of-state coordination/concurrence/review. If analysis of out-of-state site(s) is needed, more time and effort will be needed.
4. ~~NRC and the state of Illinois~~ will concur on the time frames for the analysis and the assumptions regarding monitoring/maintenance/institutional controls. Under established policy, "long-term" means containment for at least 200 years and up to 1,000 years (per EPA uranium mill tailings regulations).
5. A total of 2 to 3 disposal designs will be developed and utilized with minor modifications for each alternative site.
6. The major issues to be analyzed in depth are:
 - (a) Long-term groundwater contamination and containment system durability/stability.
 - (b) Radiological impacts (near-term and long-term).
 - (c) Land-use/socioeconomic impacts.
 - (d) Dollar costs (implementation costs and maintenance/monitoring costs).
7. The cost-benefit analysis will be a summary comparison of the results of the abovementioned analyses of major issues.
8. *Revise* The schedule assumes concurrent reviews of preliminary drafts by NRC, ~~state of Illinois, and West McGee. Sequential reviews could extend the schedule greatly.~~
9. The schedule is based on no local (county, city, etc.) review of preliminary drafts and no public meetings. NRC will decide the level and timing of local participation in the decision-making process.

Attachment 2: Proposed Schedule for Preparation of the Draft SEIS

Primary Responsibility	Activity	Completion Date	
NRC	Approve Supplemental EIS Approach - <i>Adverse Parties</i>	May 1, 1985	<i>1/1</i>
ILL/NRC/ANL	Identify ^{<i>potential</i>} and Concur on Alternative Sites	May 31	
NRC/ANL	<i>Concur on Alternative Sites for Detailed Analysis</i>	June 28, 1985	
IL	Provide ANL with Alternative Site Data*	May 31	
ANL/NRC	Visit Alternative Sites	June 28 <i>July 12</i>	
ANL	Develop Conceptual Designs for Alternative Sites	Aug. 16	
NRC/ANL	Review and concur on Conceptual Designs for Alternative Sites.	Aug. 30	
NRC/ANL	Concur on (1) Time Frames for Analysis, (2) Major Issues, and (3) Depth of Analysis	Aug. 30	
ANL	Prepare Preliminary Draft Supplemental EIS (PDSEIS) - I	Dec. 23	
NRC	Review PDSEIS-I	Jan. 24, 1986	
NRC/ANL	Concur on Revisions	Jan 31	
ANL	Prepare PDSEIS-II	Feb. 28	
NRC/ ILL Kerr-McGee	Review PDSEIS-II	Mar. 28	
NRC/ ILL Kerr-McGee /ANL	Concur on Revisions	Apr. 11	
ANL	Prepare Camera-Ready Draft SEIS	May 2	
NRC	Concurrence, Prepare Letters, etc.	May 23	
NRC	Print and Distribute DSEIS	June 6	
NRC	Issue <u>Federal Register</u> Notice of Availability	June 13	
ILL/Public/ Kerr-McGee	Review/Comment on DSEIS	July Aug.	
NRC	Issue Final SEIS	Jan. Feb. 1986	
NRC	Record of Decision	Mar. 1987	

*For any new sites and/or new data on previously considered sites.

Attachment 3: Estimate of ANL Costs
for the Preparation of the Draft SEIS

	<u>Effort (Person-Years)</u>	
	<u>FY 85</u>	<u>FY 86</u>
Direct Scientific/Technical	1.3	1.8
Other Direct	<u>0.2</u>	<u>0.3</u>
Total	1.5	2.1

	<u>Cost (\$1,000)</u>	
	<u>FY 85</u>	<u>FY 86</u>
Direct Salaries	75.0	112.0
M & S	5.0	7.0
ADP Support	5.0	5.0
Subcontracts	0	0
Travel (Domestic)	10.0	10.0
Indirect Labor Costs	25.0	40.0
G & A (19.6%)	<u>29.0</u>	<u>42.0</u>
Total	149.0	216.0