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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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USNRC

COMMISSIONERS:

97 SEP -3 AM 102

Shirley Ann Jackson, Chairman  
Greta J. Dicus  
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Edward McGaffigan, Jr.

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

SERVED SEP -3 1997

In the matter of )  
 )  
Louisiana Energy Services )  
 )  
(Claiborne Enrichment Center) )

Docket No. 70-3070-ML

CLI-97-11

ORDER

In this proceeding for a combined construction permit and operating license, the Commission is considering together three petitions for review, two by Citizens Against Nuclear Trash (CANT) and one by Louisiana Energy Services (LES). All three petitions concern waste disposal and decommissioning funding at LES's proposed uranium enrichment facility. Before taking action on the pending petitions, the Commission requires clarification of one issue decided by the Atomic Safety and Licensing Board in LBP-97-3, 45 NRC 99 (1997). As explained below, we remand one issue to the Board for further explanation.

The issue that concerns us is the portion of LES's decommissioning funding estimate allocated for disposal of triuranium octaoxide ( $U_3O_8$ ). The Board found LES's estimate reasonable. LBP-97-3, 45 NRC at 113. The Board-approved disposal estimate assumes that deep mine disposal of  $U_3O_8$  is a

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plausible strategy that will provide adequate protection to the public and the environment. In its Final Environmental Impact Statement (FEIS) the staff analyzed the estimated dose impacts from disposal of  $U_3O_8$  in a hypothetical deep disposal site and found them to be within regulatory limits. NUREG-1484, Vol 1, at 4-66 to 68 (August 1994).

The migration of  $U_3O_8$  from a deep-mine disposal site depends critically on the characteristics of groundwater at the site. As part of its analysis, the staff used groundwater characteristics from an actual near-surface site to calculate solubilities and migration of waste radionuclides from two hypothetical deep-disposal sites. Based on these results, the staff then estimated potential dose impacts from the deep disposal of  $U_3O_8$  via radiological exposure pathways (e.g., drinking water, irrigated crops, and fish), and found them within regulatory limits.

CANT argues that "the FEIS is seriously deficient in its analysis of the likely dose calculations resulting from deeper-than-surface disposal, thereby failing to provide an adequate basis for the NRC staff's conclusion that deeper-than-surface disposal is safe...." CANT Petition for Partial Review of LBP-97-3 at 5 (May 8, 1997). According to CANT, to support the plausibility of deep-mine disposal the NRC staff used a "very narrow mix of settings, and then picked and chose data that were not representative of the range of potential conditions [in deep mine cavities]." See id. at 6.

The Board rejected CANT's effort to discredit the feasibility of deep mine disposal. See LBP-97-3, 45 NKC at 119-23. The Board noted that no particular mine has been selected or identified as a potential deep-disposal site so that exact characteristics of groundwater in a potentially acceptable deep disposal facility are not available for analysis. The staff cited data that establish the range of potential values likely to be found for each sensitive parameter in deep groundwater at the hypothetical geological settings. The Board found it reasonable that the staff calculated dose impacts using only a single set of values taken from near-surface data for sensitive parameters, given that the near-surface values fell within the expected range for deep groundwater parameters.

However, it is not clear if the Board found it plausible that a deep mine with the exact near-surface values chosen for each sensitive parameter used by the staff would be available, or if the Board simply found it plausible that there is a mine in the U.S. with characteristics falling within the expected range. It may be unrealistic to assume that a mine exists with the exact groundwater characteristics used by the staff in calculating dose impacts.

If, as the Commission believes likely, the Board relied only on the plausibility of the existence of a mine with characteristics lying within the potential range, the Board needs to discuss why it found that the staff's dose impact calculations can be taken as representative of disposal in mines with

groundwater characteristics that differ from the staff's single set of values. The Board has not identified the effect, if any, that varying the values within the expected range would have on dose impacts. It may well be that varying the values of the sensitive parameters, even using values at the limits of the range, would not result in dose impacts above the regulatory limit, in light of the significantly low dose impacts estimated using the selected values within the range. See FEIS at A-14 to 15. But the Board cited no analysis that would provide assurance that this is correct. The Commission remands this issue to the Board for clarification. "In Commission practice the Licensing Board, rather than the Commission itself, traditionally develops the factual record in the first instance." Georgia Institute of Technology (Georgia Tech Research Reactor, Atlanta, Georgia), CLI-95-10, 42 NRC 1, 2 (1995). Accord Ralph L. Tetrick (Denial of Application for Reactor License), CLI-97-5, 45 NRC 355, 356 (1997).

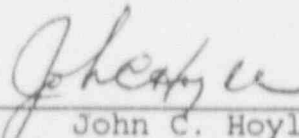
This limited remand should not unduly delay the ultimate resolution of the adjudication, in view of the substantial issues already pending before the Commission on other appeals. The Commission expects that the Board will be able to decide the remanded issue by November 17, 1997. The Board is free to solicit further affidavits or other pleadings from the parties. If the Board cannot resolve this matter by November 17, 1997, it

should advise the Commission and parties of an alternative, reasonable schedule.<sup>1</sup>

IT IS SO ORDERED.



For the Commission<sup>2</sup>

  
 John C. Hoyle  
 Secretary of the Commission

Dated at Rockville, Maryland,  
 this 3<sup>rd</sup> day of September, 1997.

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<sup>1</sup>The Commission recently received a letter from counsel for LES, dated August 20, 1997, and served on the LES service list, that asks the Commission its view as to when decisions can be expected. It is not the Commission's practice to announce in advance a firm schedule for its appellate decisions. To do so in this case would be particularly infeasible in view of the complexity of the remaining issues, the incomplete status of the appellate record (final briefs on the pending appeals are not scheduled to be filed until later this month), and competing demands on the time of the Commission and its staff. The Commission already is giving priority attention to all pending appellate matters in this case, and as evinced by its remand decision here, is asking the Licensing Board to do the same for any decisions it is called upon to make. Over the next several months, the Commission expects to issue a series of decisions, of which this is the first, that together will resolve all currently pending appellate issues.

<sup>2</sup> Commissioner Diaz was not available for the affirmation of this Order. Had he been present, he would have affirmed the Order.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of

LOUISIANA ENERGY SERVICES, L.P.

(Claiborne Enrichment Center  
SNM License)

Docket No.(s) 70-3070-ML

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing COMMISSION ORDER (CLI-97-11) have been served upon the following persons by U.S. mail, first class, except as otherwise noted and in accordance with the requirements of 10 CFR Sec. 2.712.

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Docket No.(s)70-3070-ML  
COMMISSION ORDER (CLI-97-11)

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Dated at Rockville, Md. this  
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*Adrian T. Byrdson*  
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