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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION  
BEFORE THE COMMISSION

OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

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In the Matter of

Docket No. 70-3103

Louisiana Energy Services, L.P.  
National Enrichment Facility

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ASLBP No. 04-826-01-ML

REPLY BRIEF ON BEHALF OF PETITIONERS  
NUCLEAR INFORMATION AND RESOURCE SERVICE/  
PUBLIC CITIZEN  
IN SUPPORT OF  
NIRS/PC CONTENTION EC-3/TC-1

Preliminary statement

This memorandum is submitted on behalf of petitioners Nuclear Information and Resource Service and Public Citizen ("NIRS/PC") pursuant to the Memorandum and Order of the Nuclear Regulatory Commission (the "Commission"), dated August 18, 2004. That Order allows the parties to file briefs concerning the admissibility of contention NIRS/PC EC-3/TC-1, Basis D, which was admitted by the Atomic Safety and Licensing Board ("Board"). The contention states:

"Petitioners contend that LES does not have sound, reliable, or plausible strategy for disposal of the large amounts of radioactive and hazardous Depleted Uranium Hexafluoride ("DUF<sub>6</sub>") waste that the operation of the plant would produce. See NRC Order, 69 Fed. Reg. 5873, 5877 (Feb. 6, 2004)."

Basis D states, specifically, that the disposition of depleted uranium by tendering it to the U.S. Department of Energy ("DOE") under Section 3113 of the U.S. Enrichment Corporation Privatization Act is not a "plausible strategy." This memorandum is submitted in reply to

contentions contained in the briefs submitted on behalf of the Applicant, Louisiana Energy Services, L.P. ("LES"), and the Staff of the Commission.

### Argument

LES and the Staff have invited the Commission to decide, on this referral, that waste generated from the proposed National Enrichment Facility ("NEF") would be "low-level radioactive waste," which LES may then tender to DOE for dispositioning under Section 3113 of the U.S. Enrichment Corporation Privatization Act, Pub. L. 104-134, Title III, Ch. 1, Subch. A, 110 Stat. 1321- 35) (1996)—thus establishing a "plausible strategy." This Commission would commit serious error if it accepted those ill-considered invitations. It is important to remember the stage of this proceeding. The issue here is a threshold one—of admissibility of an allegation. No hearing has been held on any contentions. No evidence has been introduced, weighed or cross-examined. The only question is whether contention NIRS/PC EC-3/TC-1 should be admitted for purposes of further proceedings before the Board.

LES and the Commission Staff assert that, in *their* view, any depleted uranium waste from the NEF must, as a matter of law, constitute low-level radioactive waste (LES Br. 8; NRC Staff Br. 5). However, the contention involves the lack of a "plausible strategy" for waste disposal. Under the language of the statute, Sec. 3113, there must be a *Commission determination* that certain waste constitutes "low-level radioactive waste" before it may be tendered to DOE. On this specific point, it is undisputed that the Commission has made *no such determination*. The Commission Staff has expressly so confirmed, in reference to this proceeding:

"NRC staff considers that Section 3113 would be a 'plausible strategy' for dispositioning depleted uranium tails *if NRC determines* that depleted uranium is a low-level radioactive waste. In that regard, the staff expects that LES will indicate in its application whether it will treat the tails as a waste or a resource. LES should also demonstrate in its

application, given the expected constituents of its depleted tails, that the tails meet the definition of low-level radioactive waste in 10 CFR Part 61.” (Letter, R.C. Pierson, NRC ONMSS, to R.M. Krich, LES, March 24, 2003) (*emphasis supplied*).

Next, this Commission itself, in giving guidance for this proceeding, pointed out that whether depleted uranium constitutes low-level radioactive waste is one of the *unresolved issues*—

*“if such waste meets the definition of “waste” in 10 CFR 61.2, the depleted tails are to be considered low-level radioactive waste within the meaning of 10 CFR part 61 . . .” (69 Fed Reg. at 5877) (emphasis supplied).*

Concerning the factual issue of the precise form of the waste, LES’s Application states very little—but argues that the waste must, in law, be considered low-level (App. ER Sec. 4.13.3.1.3). In response to LES’s argument, NIRS/PC filed its contention NIRS/PC EC-3/TC-1, addressing the unresolved issue. NIRS/PC stated (a) that the Commission had not determined that the waste would be low-level radioactive waste, and (b) that, based upon its estimate of the waste form, such depleted uranium would not constitute low-level waste. (NIRS/PC Petition, April 6, 2004, at 28-31). NRC Staff acknowledged in response that NIRS/PC had advanced an admissible contention on a disputed issue of fact:

“NIRS, by providing a detailed analysis for its conclusion that DU cannot be considered low level waste, has raised a genuine issue of fact which is material to this proceeding further supporting the admission of this contention.” (NRC Staff Ans. 14, May 3, 2004).

Thus, the Board ruled that the contention (as to Bases B, C, and D) is “sufficient to establish a genuine material dispute adequate to warrant further inquiry.” (Memorandum and Order, July 19, 2004, at 29).

Now, Staff and LES have presented conclusory affidavits, asserting that depleted uranium would be low-level radioactive waste (LES Br., Harper Aff., attached; NRC Staff Br., Johnson Aff., attached). There has been no hearing and no opportunity to cross-examine such

affiants. Despite such cursory evidence, the waste form is still undefined, and the unresolved questions that impelled this Commission, and the Board, to identify the status of the waste as a litigable issue remain. To meet the definition of "waste" in 10 CFR 61.2, the depleted uranium waste must be "acceptable for disposal in a land disposal facility." This is the factual question that the Commission identified in its hearing order, and the Board recognized in its July 19, 2004, Order, and the briefs of LES and the Commission Staff have done nothing to resolve it.

In adopting 10 CFR Part 61, the Commission made clear that, in considering specific wastes, the Commission reserves the authority to add isotopes to the classification tables in 10 CFR 61.55 "later either generically or in specific waste streams." (Final Environmental Impact Statement on 10 CFR Part 61 "Licensing Requirements for Land Disposal of Radioactive Waste," Nov. 1982, at 5-38) ("Final EIS"). In response to a specific proposal, the Commission may reinstate depleted uranium to the classification table, thus placing it squarely in the Greater-than-Class C category, or may "authorize other provisions for the classification and characteristics of waste, on a specific basis, if, after evaluation, of the specific characteristics of the waste, disposal site, and method of disposal, it finds reasonable assurance of compliance with the performance objectives in subpart C of this part." (10 CFR 61.58). Only in such a decisional process is it established whether certain waste is "acceptable for disposal in a land disposal facility."

The Commission Staff in SECY-91-019 (Jan. 25, 1991) recognized the range of issues to be determined in deciding how depleted uranium waste may be disposed of. Staff then noted that the exact form of the waste must be known:

"[I]t should be noted that without knowing the specifics of the enrichment process, the following discussion must be generic. The amount of  $UF_6$  tails and their activity depends on specifics such as the uranium-235 content of the feed and the efficiency of the process used for enrichment. . . ." (SECY-91-019, Att. at 1).

Staff then observed that, in deciding whether some form of land disposal will be permitted, the Commission must consider the waste characteristics and the proposed disposal methods:

“Under 10 CFR 61.58, the Commission may authorize other provisions for the classification and characteristics of waste, on a specific basis. This will be the case if, after evaluation of the specific characteristics of the waste, disposal site, and method of disposal, the Commission finds reasonable assurance of compliance with the performance objectives of Subpart C of Part 61.” (SECY-91-019, Att. at 2).

Further, Staff then specifically pointed out that *no National Environmental Policy Act analysis had been done* of the application of 10 CFR Part 61 to the disposal of depleted uranium tails at a low-level waste disposal facility and said that such analysis “should be conducted”:

“Review of the Environmental Impact Statement supporting 10 CFR Part 61 shows that although NRC considered the disposal of uranium and UF<sub>6</sub> conversion facility source terms in the analysis supporting Part 61, NRC did not consider disposal of large quantities of depleted uranium from an enrichment facility in the waste streams analyzed because there was no commercial source at that time. Therefore, analysis of the disposal of depleted uranium tails from an enrichment facility at a Part 61 LLW disposal facility should be conducted similar to the pathway analysis conducted in support of Part 61.” (SECY-91-019, Att. at 4).

Thus, Staff’s analysis in SECY-91-019 is instructive as to the nature of the investigation—including NEPA analysis—that the Commission must make before it can determine whether waste from the proposed facility would be “acceptable for disposal in a land disposal facility” (10 CFR 61.2, “Waste”). That determination must be made before LES can claim a right to invoke Sec. 3113.

Moreover, under 42 USC 2243,

“The Commission shall conduct a single adjudicatory hearing on the record with regard to the licensing of the construction and operation of a uranium enrichment facility under sections 53 and 63.”

It would contravene the hearing requirement of Sec. 2243 to attempt to decide on disposal methods for depleted uranium waste—one of the most critical contested issues in this proceeding—without the “adjudicatory hearing on the record” that Congress has mandated.

Contrary to the invitations of LES and Staff, it would be incorrect to undertake to resolve fact issues at this stage, for at the contention-admissibility stage the presiding officer is “not to decide issues on the merits, but merely whether ‘further inquiry’ is warranted on the matters put forth in the contentions in question, such that they should be admitted for litigation,” *In re Duke Energy Corp.* (McGuire Nuclear Station), LBP-02-4, 55 NRC 49, 105 (Jan. 24, 2002). It would be error “to prejudge the merits of a contention before an intervenor has an opportunity to present a full case” (*id.*, quoting the Commission’s statement in issuing amended 10 CFR Part 2, Rules of Practice for Domestic Licensing Proceedings, 54 Fed. Reg. 33168, 33,171 (Aug. 11, 1989)).

Plainly, this abbreviated certification process is entirely unsuited to determine whether LES’s waste could be regarded as low-level radioactive waste under Part 61. For example, LES argues that SECY-91-019 refers to depleted uranium tails as “Class A wastes” (LES Br. 11, quoting from SECY-91-019, Att. at 4), but the very next sentence in SECY-91-019 emphasizes the importance of the precise waste form, stating that, “if stored in 48G casks, they would not meet the minimum waste form requirements in 10 CFR 61.56(a).” (*id.*). These and other issues of the nature and form of LES’s depleted uranium waste must be considered in a hearing under 42 USC 2243 before the Commission can determine whether such waste can be managed and disposed of as low-level waste.

Thus, contentions that the status of depleted uranium can be determined from the “plain language,” the supposed “unambiguous” terms, and the “clear terms” of Part 61 (LES Br. 2, 8,

10) ignore the fact-specific inquiry that the Commission must undertake before determining that a specific waste form is "acceptable for disposal in a land disposal facility" (10 CFR 61.2, "Waste").

LES argues, inconsistently, that the Commission should give weight to affidavits filed in the Claiborne proceeding, *In re Louisiana Energy Services* (Claiborne Enrichment Center), No. 70-3073-ML, ASLBP No. 91-641-02-ML, 1995 WL 110611 (March 2, 1995), as demonstrating the supposed low hazard of depleted uranium. (LES Br. 16-17). However, those affidavits are not in the record of this proceeding; the Commission allowed the parties to file "briefs" (Memorandum and Order, Sept. 18, 2004, at 8), not to introduce evidence; NIRS/PC will address those erroneous arguments when and if LES deigns to present them for criticism; and the decision in the Claiborne case has been expressly vacated without Commission review. It would be a great mistake to give any credence to erroneous non-record statements made in another proceeding concerning a matter that the Commission itself specifically declined to review.

The additional assertion that the recent Draft Environmental Impact Statement for the Proposed National Enrichment Facility in Lea County, New Mexico, NUREG-1790 (Sept. 2004), resolves the present issue (LES Br. 2-3, 12), simply ignores that this Staff document *assumes*, without analysis, that the depleted uranium is "low-level radioactive waste" (at 2-27). More importantly, this draft document, issued by Staff for comment, clearly does not constitute a decision by this Commission.

Finally, LES erroneously asserts that NIRS/PC are tardily seeking to challenge the Hearing Order (LES Br. 19), but in contending that the depleted uranium from the proposed NEF would not be "low-level radioactive waste," NIRS/PC are simply addressing the unresolved issue that this Commission identified in that order, *viz*:

“... if such waste meets the definition of ‘waste’ in 10 CFR 61.2 ...”

Nothing in the papers filed by Staff or LES addresses the critical obstacle to calling depleted uranium waste “low-level waste” under 10 CFR Part 61, *i.e.*, there has been no environmental impact analysis of the disposal of depleted uranium as low-level waste under the terms of 10 CFR Part 61. (See SECY-91-019, Att. at 4). Such an analysis would include full consideration of alternatives and a decision by the Commission that, based on the projected performance of the disposal system, disposal as low-level radioactive waste under the terms and conditions of Part 61 is acceptable to the Commission. That analysis has not been done.

NIRS/PC submit that such environmental impact analysis should be done on a programmatic basis, since it would, in effect, supplement the Final EIS issued in 1982. Further, United States Enrichment Corporation (“USEC”) recently filed its application for a license to build a commercial-scale centrifuge enrichment plant at Piketon, Ohio. That application has not been made public, but the USEC application is also likely to raise the question whether depleted uranium can be transferred to DOE under Sec. 3113.

### Conclusion

As this Commission expressly noted, in refusing to take the issue on interlocutory review, whether a particular form of depleted uranium constitutes “low-level radioactive waste,” and if so what class of waste, is a “subtle and complex” issue which should not be addressed without opportunity for full inquiry. In re *Louisiana Energy Services* (Claiborne Enrichment Center), CLI-95-7, No. 70-3070-ML (June 22, 1995). This Commission then stated that that it would prefer “to review waste disposal as a whole, rather than in a piecemeal fashion, after a final Licensing Board decision resolving the entire case has been issued.” (*Id.*). The Commission



should not be drawn in by simplistic arguments to decide an issue that is not ripe, nor fair, to resolve on the present insufficient record.

Since the Commission has not determined whether depleted uranium from enrichment plants may be classed as low-level radioactive waste, Sec. 3113 simply does not apply. This Commission has not undertaken the full investigation, including environmental impact analysis, required to make that decision.

NIRS/PC submit that the requisite environmental analysis should be undertaken in a supplement to the Final EIS, given the broad impact of the issue. In any case, should the Commission undertake no such supplemental environmental analysis, the present licensing proceeding cannot proceed to a decision, such as LES seeks, without undertaking the "subtle and complex" inquiry needed to determine the status of depleted uranium waste to be generated by the NEF. Such inquiry necessarily includes examination of the risks presented by the depleted uranium waste, the time period of such risk, and its amenability to various methods of shallow and deep disposal. For purposes of such inquiry, contention NIRS/PC EC-3/TC-1, which raises exactly such issues, should be admitted for hearing, in accordance with 42 USC 2243. Such fact-specific issues cannot be decided in this abbreviated proceeding, where no evidence has been taken, and there has been no opportunity to present evidence or to cross-examine adversary testimony. NIRS/PC should be allowed to present evidence that the waste in issue is not "acceptable for disposal in a land disposal facility."

Respectfully submitted,



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September 17, 2004

### CERTIFICATE OF SERVICE

Pursuant to 10 CFR § 2.305 the undersigned attorney of record certifies that on September 17, 2004, the foregoing Reply Brief on Behalf of Petitioners Nuclear Information and Resource Service /Public Citizen in Support of NIRS/PC Contention EC-3/TC-1 was served by electronic mail and by first class mail upon the following:

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