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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	)	
	)	Docket No. 70-3103-ML
Louisiana Energy Services, L.P.	)	
	)	ASLBP No. 04-826-01-ML
(National Enrichment Facility)	)	

PREFILED REBUTTAL TESTIMONY OF ROD KRICH AND THOMAS LAGUARDIA ON BEHALF OF LOUISIANA ENERGY SERVICES, L.P. REGARDING THE ADEQUACY OF APPLICANT'S CONTINGENCY FACTOR

I. WITNESS BACKGROUND

Q1. Please state you name, occupation, employer, and responsibilities relative to the licensing of Louisiana Energy Services, L.P.'s ("LES") proposed National Enrichment Facility ("NEF").

A1. I, Rod M Krich ("RMK"), am Vice President of Licensing, Safety, and Nuclear Engineering for LES, the applicant in this matter. I am presently "on loan" to LES from Exelon Nuclear, where I am Vice President Licensing Projects. I am responsible for leading the effort on behalf of LES to obtain a license from the U.S. Nuclear Regulatory Commission ("NRC"), as well as other necessary state and federal permits, to construct and operate the proposed NEF. A full statement of my professional qualifications was included with LES's initial prefiled direct testimony in this proceeding, submitted on September 16, 2005. *See* "Prefiled Direct Testimony of Rod Krich and Thomas LaGuardia on Behalf of Louisiana Energy Services, L.P. Regarding the Adequacy of the Contingency Factor Applied by LES to its Cost Estimate for Depleted Uranium Dispositioning" (Sept. 16, 2005) ("LES Contingency Factor Direct Testimony").

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I, Thomas S. LaGuardia ("TSL"), am President of TLG Services, a consulting engineering company that provides planning and management of decontamination and decommissioning projects, and supports nuclear power plant utilities and other nuclear facilities in estimating and funding the costs of decommissioning. I have over 37 years of experience in the nuclear industry, and for the last the last 35 years, I have worked exclusively in the field of decontamination and decommissioning. A full statement of my professional qualifications was included with LES's initial prefiled direct testimony in this proceeding, submitted on September 16, 2005. *See* LES Contingency Factor Direct Testimony.

Q2. What is the purpose of this rebuttal testimony?

A2. (RMK, TSL) The purpose of this rebuttal testimony is to respond to certain claims contained in the prefiled direct testimony of Arjun Makhijani regarding the adequacy of the contingency factor applied by LES to its overall depleted uranium ("DU") disposition cost estimate, as submitted on behalf of Nuclear Information and Resource Service and Public Citizen ("NIRS/PC") on September 16, 2005. *See* "Direct Testimony of Dr. Arjun Makhijani in Support of NIRS/PC Contentions EC-3/TC-1, EC-5/TC-2, and EC-6/TC-3 Concerning the Contingency Factor Applied to LES's Cost Estimate" (Sept. 16, 2005) (hereinafter "Makhijani Direct Testimony"). Our rebuttal testimony concerns only those portions of Dr. Makhijani's direct testimony that were not excluded by the Licensing Board in its Memorandum and Order (Ruling on In Limine Motions and Motion to Dismiss) of October 4, 2005. Specifically, we demonstrate that in his prefiled direct testimony, Dr. Makhijani fails to contest in any meaningful way the adequacy of the contingency factor applied by LES to its overall cost estimate for DU dispositioning. We also point out that, rather than contesting the adequacy of the contingency factor, Dr. Makhijani seeks to contest the adequacy of one component of the cost estimate, itself, the cost of DU disposal.

II. RESPONSE TO CLAIMS MADE IN THE PREFILED DIRECT TESTIMONY OF NIRS/PC WITNESS ARJUN MAKHIJANI

Q3. On pages 11 to 12 of his prefiled direct testimony, Dr. Makhijani discusses the issue of "scaling uncertainties" relative to any commercial deconversion facility that might be built to deconvert depleted uranium hexafluoride ("DUF_6") to depleted U_3O_8. How does this issue relate to the adequacy of LES's contingency factor?

A3. (RMK) The issue of facility "scaling" for cost-estimating purposes does not relate to the adequacy of LES's contingency factor. In any event, Dr. Makhijani himself states that "scaling uncertainties are significant enough to argue for the continued inclusion of at least a 25 percent contingency factor." Makhijani Direct Testimony, Answer 7 at 12. As set forth in our prefiled direct testimony, LES has committed to apply a 25 percent contingency specifically in response to an NRC Staff request for additional information ("RAI") in this proceeding. *See* LES Exhibit 83 (SAR), at Table 10.1-14; LES Exhibit 84, Attach. 1 at 2, 6; Staff Exhibit 37 (Safety Evaluation Report), at 10-10. The Staff's RAI, which directed LES to "provide a contingency factor of 25 percent for [depleted UF_6] tails disposition," expressly reflects the Staff's continuing position, as stated in NUREG-1757, that the addition of a 25 percent contingency provides an adequate level of assurance with respect to unforeseen cost increases that are within the scope of the identified activities.

Notwithstanding, Dr. Makhijani's assertion that LES must account for "scaling" uncertainties through its contingency factor is based on the premise that LES's commercial deconversion cost estimate is, or should be, based on the price paid by Urenco for deconversion services performed at COGEMA's Pierrelatte, France plant, under an existing European contract between those two parties. Dr. Makhijani reasons that, because the Pierrelatte plant has larger

"throughput" than "a deconversion plant that would be built to handle the DUF_6 from the proposed NEF," LES must account for the cost uncertainties associated with "scaling" down to a facility with a smaller throughput or deconversion capacity. Makhijani Direct Testimony, Answer 7 at 11-12. Dr. Makhijani is flat-out wrong. First, LES's deconversion cost estimate is based on information contained in a 2004 Urenco business study concerning the construction of a deconversion plant at Urenco's Capenhurst, U.K, site. Second, based on the information provided by Urenco and COGEMA, LES, by scaling up, was able to prepare a cost estimate for a 7,000 MT U/year capacity facility, *i.e.*, for a facility appropriately sized to handle the amount of DUF_6 to be generated annually by the NEF. The basis for that estimate is discussed in detail in LES's prefiled direct and rebuttal testimony on deconversion strategy and cost issues. Thus, scaling concerns of the sort cited by Dr. Makhijani (*i.e.*, scaling down) are not an issue.

Q4. On pages 16 to 18 of his direct testimony, Dr. Makhijani questions LES's reliance on cost information from WCS and Envirocare. How does this issue relate to the adequacy of LES's contingency factor?

A4. (RMK, TSL) Again, the issue raised by Dr. Makhijani has no bearing on the adequacy of LES's contingency factor. Rather, Dr. Makhijani seeks to challenge one component (*i.e.*, disposal costs) of LES's base overall cost estimate for DU dispositioning. The basis for LES's commercial cost estimate for DU disposal is presented in full in LES's prefiled direct testimony on disposal strategy and cost issues. Where, as is established there, the underlying cost estimate has a reasonable basis, a contingency factor of 25 percent is more than adequate.

Q5. In Answer 14 of his prefiled direct testimony, Dr. Makhijani states that "[t]he triennial cost adjustments [required by 10 C.F.R. § 70.25(e)] are meant to allow minor modifications of the decommissioning cost estimates to reflect changes such as adjusting inflation rates." He adds that such adjustments are "not meant to provide a mechanism for major

adjustments to the cost to reflect significant departures from the decommissioning plan set forth at the time the license is granted. Do you agree with those statements?

A5. (RMK, TSL) No. While we do not dispute that an applicant's initial decommissioning funding plan cost estimate must be based on reasonable and documented assumptions, we believe that Dr. Makhijani takes an unduly narrow view of the purpose and function of the periodic update process. In doing so, he downplays its importance.

The triennial update is intended to account for changes in costs as they occur. Pursuant to 10 C.F.R. § 70.25(e), an applicant is required to adjust cost estimates and associated funding levels at least every three (3) years. Notably, LES has committed to update its DU dispositioning cost estimate on an annual forward-looking basis, and will be required to do so by license condition. *See* NRC Staff Exhibit 37, at 10-15. The obligation to periodically update decommissioning cost estimates also is also highlighted in NUREG-1757. *See* LES Exhibit 82, at 4-10. In implementing the triennial update requirement, the NRC explained the purpose of that requirement as follows:

> The proposed requirement to update decommissioning cost estimates every 3 years will help ensure that financial assurance obtained by licensees will not become inadequate as a result of changing disposal prices or other factors. Increasing waste disposal costs have been and continue to be a concern for NRC. <u>However, decommissioning costs also may change for a variety of licensee-specific reasons (e.g., due to changes in the size and scope of operations), as well as for other reasons that may be out of a licensee's control (e.g., inflation)</u>. The proposed 3-year cost estimate updates are intended to capture changes in estimated costs <u>regardless of cause</u>, and to help ensure that the level of financial assurance required of each licensee is appropriate. Therefore, the proposed requirement is appropriate even for licensees that are not expecting to incur any significant waste disposal costs, as well as for licensees that may be taking steps to reduce the volume of decommissioning waste (which is only one component of decommissioning costs). 68 Fed. Reg. 57,327, 57,332 col. 1 (Oct. 3, 2003) (emphasis added).

As the NRC Staff confirmed in its prefiled direct testimony, once an additional cost or increase in cost -- major or minor -- is foreseeable, a licensee must account for the cost and provide appropriate funding. Thus, the periodic update process provides yet an additional layer of assurance that a licensee will maintain adequate funds for facility decommissioning and waste dispositioning.

Q6. Does this conclude your testimony?

A6. (RMK, TSL) Yes.

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CERTIFICATE OF SERVICE

I hereby certify that copies of the "PREFILED REBUTTAL TESTIMONY OF ROD KRICH AND THOMAS LAGUARDIA ON BEHALF OF LOUISIANA ENERGY SERVICES, L.P. REGARDING THE ADEQUACY OF APPLICANT'S CONTINGENCY FACTOR" in the captioned proceeding has been served on the following by e-mail service, designated by **, on October 11, 2005 as shown below. Additional service has been made by deposit in the United States mail, first class, this 11th day of October 2005.

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