NIRS / PC EXHIBITS

Volume 2

Louisiana Energy Services, L.P.
Dkt. No. 70-3103
ASLBP No. 04-826-01-ML

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USNRC

February 4, 2005 (2:30pm)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

Docket No. 70-3103-ML

18

September 23, 2004

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) .	)	

APPLICANT'S OBJECTIONS AND RESPONSES TO INTERROGATORIES
FROM NUCLEAR INFORMATION AND RESOURCE SERVICE AND PUBLIC CITIZEN

INTERROGATORIES

1. Describe each person who has consulted or supplied information for use in preparing answers to these interrogatories and document requests and identify the questions in connection with which such person was consulted or supplied information.

RESPONSE:

George A. Harper (Manager of Regulatory Compliance Programs)
Framatome ANP
Solomon Pond Park
400 Donald Lynch Boulevard
Marlborough, MA 01752
978-568-2728

Interrogatory Nos. 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19

James A. Kay (Advisory Engineer)
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978-568-2302

Interrogatory Nos. 41, 44

U.S. NUCLEAR REGULATORY COMMISSION
In the Matter of LOUISIANA ENERGY SERVICES, LP
Docket No. 70-3103-ML Official Exhibit No. 30
OFFERED by: Applicant/Licensee Intervenor NRC Staff Other
IDENTIFIED on ____ Witness/Panel G. Rice
Action Taken: ADMITTED REJECTED WITHDRAWN
Reporter/Clerk

Michael Schwartz (Chairman of the Board)
Energy Resources International, Inc.
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Washington, DC 20036
202-785-8833

Interrogatory Nos. 20, 22, 23, 26, 27, 28, 29, 30, 32, 33, 58, 59, 65

Julian Steyn (President)
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Interrogatory Nos. 58, 59, 65

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Interrogatory No. 40

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Interrogatory No. 40

Rod Krich (Vice President – Licensing, Safety, and Nuclear Engineering)
Louisiana Energy Services, L.P.
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Interrogatory Nos. 5, 18, 19, 40, 63, 65

Daniel Green (Senior Consulting Engineer)
EXCEL Services Corporation
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Rockville, MD, 20852
301-984-4400

Interrogatory Nos. 5, 18, 40

2. According to statements contained in the NEF application, sewage is to be discharged to six leach fields.[1]

   a. Where will this sewage go after it is discharged?

   b. Please describe each document referring or relating to flow, fate, and transport of water or constituents discharged from the sewage system.

RESPONSE:

LES objects to this request on the grounds that it is (1) vague and ambiguous in its use of the phrase "flow, fate, and transport of water or constituents" and (2) constitutes an improper compound and confusing question that touches upon and inquires into separate matters (*e.g.*, "flow" of water and "transport" of "constituents"). Notwithstanding, and without waiving these objections, LES states as follows.

a. The treated liquid will be discharged to the leach fields. The ultimate disposal of liquid discharged to the leach fields is expected to be via evapotranspiration, based on the geologic and meteorological conditions at the site.

b. (1) NEF Safety Analysis Report (Section 3.5.6)

   (2) NEF Environmental Report (Sections 3.12.1.3.4 and 6.1.2)

   (3) NEF Ground Water Discharge Permit Application to the State of New Mexico Environment Department, Ground Water Quality Bureau (Sections 3, 4, and 6)

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[1] Louisiana Energy Services, 2004a, page 8.8-2.

(4) E-mail from C. Walker (LG) to G. Harper (Framatome), Subject: Preliminary Septic tank and Drainfield Calcs, March 2, 2003 (*see* LES mandatory disclosures at LES-00128 to LES-00130).

3. According to statements contained in the NEF application, stormwater runoff from the plant will be directed to an unlined evaporation basin.[2]

a. How much of this water will infiltrate into the subsurface?

b. Where will it go after it enters the subsurface? Please state the projected rate of flow, depth, and volume of water projected to enter the subsurface.

c. Please describe each document referring or relating to flow, fate, and transport of water or constituents discharged to the evaporation basin referred to.

RESPONSE:

LES objects to this request on the grounds that it is (1) vague and ambiguous in its use of the phrases (a) "flow, depth, and volume of water" and (b) "flow, fate, and transport of water or constituents;" (2) constitutes an improper compound and confusing question that touches upon and inquires into separate matters (*e.g.*, "flow" of water and "transport" of "constituents"); and (3) seeks additional analytical work beyond that which is needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii). Notwithstanding, and without waiving these objections, LES states as follows.

a. This information is provided in ER RAI 4-2A response dated May 20, 2004 (Letter NEF #04-019 dated May 20, 2004), from R. M. Krich (Louisiana Energy Services, L.P.) to Director, Office of Nuclear Material Safety and Safeguards (NRC) regarding "Response to NRC Request for Additional Information Regarding the National Enrichment Facility Environmental Report") [ADAMS Accession Package No. ML041770112].

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[2] Louisiana Energy Services, 2004a, page 8.8-3.

b. As described in ER RAI 4-2A response dated May 20, 2004, infiltrating water is expected to eventually return to the atmosphere via evapotranspiration.

c. (1) NEF Safety Analysis Report (Table 1.1-3)

(2) NEF Environmental Report (Sections 3.4.1.2 and 4.4, and Table 3.12-2)

(3) NEF Ground Water Discharge Permit Application to the State of New Mexico Environment Department, Ground Water Quality Bureau (Sections 3, 4, and 6)

(4) Letter NEF #04-019 dated May 20, 2004, from R. M. Krich (Louisiana Energy Services, L.P.) to Director, Office of Nuclear Material Safety and Safeguards (NRC) regarding "Response to NRC Request for Additional Information Regarding the National Enrichment Facility Environmental Report" [ADAMS Accession Package No. ML041770112].

4. According to the NEF application, two lined evaporation basins are to be installed.[3]

a. How much water will leak from these basins? Please state the projected timing, rate and volume of water leaking from each basin.

b. Where will it go after it enters the subsurface? Please state the projected rate of flow, depth, and volume of water projected to enter the subsurface.

c. Please describe each document referring or relating to flow, fate, and transport of water or constituents discharged to the evaporation basins referred to.

RESPONSE:

LES objects to this request on the grounds that it is (1) vague and ambiguous in its use of the phrases (a) "projected timing, rate and volume of water;" (b) "projected rate of flow, depth, and volume of water;" and (c) "flow fate, and transport of water or constituents;" (2) constitutes an improper compound and confusing question that touches upon and inquires into separate matters (*e.g.*, "flow, depth, and volume of water projected to enter the subsurface" beneath two different lined basins); (3) assumes as fact that "water will leak" from the cited basins; (4) seeks

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[3] Louisiana Energy Services, 2004a, page 8.8-3.

(in both subparts a. and b.) additional analytical work beyond that which is needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii). Notwithstanding, and without waiving these objections, LES states as follows.

a. The basins will be designed and installed as described in the following documents:

(1) NEF Environmental Report (Sections 3.4.1.2, 4.4, and 4.12, and Table 3.12-4)

(2) NEF Ground Water Discharge Permit Application to the State of New Mexico Environment Department, Ground Water Quality Bureau (Sections 3, 4, and 6)

(3) ER RAI 2-3 response dated May 20, 2004 (Letter NEF#04-019 dated May 20, 2004, from R. M. Krich (Louisiana Energy Services, L.P.) to Director, Office of Nuclear Material Safety and Safeguards (NRC) regarding "Response to NRC Request for Additional Information Regarding the National Enrichment Facility Environmental Report") [ADAMS Accession Package No. ML041770112].

The basins will be designed to preclude water from infiltrating into the subsurface. Therefore, no estimates on how much water will infiltrate into the subsurface have been, or need be, made.

b. The basins will be designed to preclude water from infiltrating into the subsurface. Therefore, no projections of where water will go after it enters the subsurface have been, or need be, made.

c. (1) National Enrichment Facility Environmental Report (Sections 3.4.1.2, 4.4, and 4.12, and Table 3.12-4).

(2) National Enrichment Facility Ground Water Discharge Permit Application to the State of New Mexico Environment Department, Ground Water Quality Bureau (Sections 3, 4, and 6)

(3) ER RAI 4-2A response dated May 20, 2004 (Letter NEF#04-019 dated May 20, 2004, from R. M. Krich (Louisiana Energy Services, L.P.) to Director, Office of Nuclear Material Safety and Safeguards (NRC) regarding "Response to NRC Request for Additional Information Regarding the National Enrichment Facility Environmental Report") [ADAMS Accession Package No. ML041770112].

5. As to liners planned for installation in evaporation basins, please state the terms and conditions of any guarantee of such liners against leakage and describe any documents discussing or relating to such guarantee.

RESPONSE:

LES objects to this request on the grounds that it is (1) vague and ambiguous in its use of the phrase "terms and conditions of any guarantee" and (2) constitutes an impermissible compound question in that inquires about "the terms and conditions of any guarantee of such liners" with respect to two different "evaporation basins." Notwithstanding, and without waiving these objections, LES states as follows.

At this juncture, LES has not selected a specific vendor to supply the liner for use in either basin. Accordingly, LES cannot provide any specific "terms and conditions of any guarantee" at this time.

6. Has the quality of the water that will be discharged to the basins and leach fields been estimated? If so, please provide the range of concentrations of each constituent that is expected to be contained in the discharges.

RESPONSE:

LES objects to this request on the grounds that it is (1) vague and ambiguous in its use of the phrases or terms (a) "quality of the water;" (b) "estimated;" and (c) "range of concentrations of each constituent;" (2) constitutes an impermissible compound question in that inquires about "discharges" from multiple "basins" and "leach fields;" and (3) appears to seek additional analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii). Notwithstanding, and without waiving these objections, LES states as follows.

Information that may be responsive to this request is provided in the following documents:

(1) NEF Environmental Report (Sections 3.4.1.2, 4.4, and 4.12, and Table 3.12-4)

(2) NEF Ground Water Discharge Permit Application to the State of New Mexico Environment Department, Ground Water Quality Bureau (Sections 3, 4, and 6)

7. According to the NEF application, cuttings from one of the borings drilled in September 2003 were *"slightly moist."*[4] In addition, the clay at the bottom of the boring B-2 was *"moist."*[5]

   a. Please state your best judgment as to the origin of such moisture.

   b. Please describe each document referring to such observed moisture or its possible origins.

RESPONSE:

LES objects to this request on the ground that it is vague and ambiguous in its use of the phrase "origin of such moisture." Notwithstanding, and without waiving this objection, LES states as follows.

a. LES judged this moisture to be from water trapped in the vadose zone. The "slightly moist" cuttings and "moist" clay descriptions were used only twice in the descriptions from the nine hydrogeologic and five geotechnical borings performed at the NEF site. All other determinations, 66 in number, were either "dry" or "very dry."

b. The observed moisture descriptions referred to in the question are noted on the boring logs and referred to in the following documents:

   (1) NEF Safety Analysis Report (Section 3.2.4.2)

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[4] Louisiana Energy Services, 2004a, page 3.4.2. Cuttings from depths of 6-14 feet.

[5] Louisiana Energy Services, 2003b, figure 3.2-11.

(2) NEF Environmental Report (Section 3.4.1.1)

8. According to the NEF application, the shallow (0 – 50 feet depth) materials underlying the NEF site consist of sand, alluvium, and caliche:[6]

   a. Please state whether the hydraulic properties (*e.g.*, hydraulic conductivity, porosity) of these materials been measured, and describe any document relating or referring to such hydraulic properties.

RESPONSE:

LES objects to this request on the ground that it is vague and ambiguous in its use of the phrase "the hydraulic properties" (*i.e.*, it does not specify all of the "hydraulic properties about which NIRS/PC seek information). Notwithstanding, and without waiving these objections, LES states as follows.

a. The "hydraulic properties" of the shallow materials underlying the NEF site have not been, nor need they be, measured by LES. Information regarding the hydraulic materials has been obtained from studies of the adjacent WCS site. *See* Attachment C ("Publicly Available Documents Relevant to Admitted Contentions"), Section III ("Water and Water Supply Impacts"), Items (9), (10), and (18) of LES's Mandatory Initial Disclosures (Sept. 2, 2004). *See also* NRC Staff's Draft Environmental Impact Statement for the NEF at 3-34 to 3-35.

9. Please state whether any hydraulic tests using well bores (*e.g.*, pump tests, slug tests) been performed on any of the wells at or near the proposed site. If your answer is yes,

   a. Please state the conclusions developed in each such test, and

   b. Describe any document relating or referring to such test or its results.

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[6] Louisiana Energy Services, 2004a, table 3.3-1.

RESPONSE:

LES objects to this request on the ground that it is vague and ambiguous in its use of the phrase "near the proposed site." Notwithstanding, and without waiving this objection, LES states as follows.

The hydraulic conductivity in Monitor Well M-2 was calculated using a rising head slug test.

a. The conclusions of the slug test are provided in the following report, which has been previously identified by LES: Hydrogeologic Investigation, Section 32, Township 21, Range 38, Eunice, New Mexico, Cook-Joyce, November 19, 2003 [ADAMS Accession No. ML041910481].

b. The following documents refer to the results of the slug test:

(1) NEF Safety Analysis Report (Section 3.2.4.4)

(2) NEF Environmental Report (Section 3.4.15)

(3) NEF Ground Water Discharge Permit Application to the State of New Mexico Environment Department, Ground Water Quality Bureau (Section 5)

(4) Hydrogeologic Investigation, Section 32, Township 21, Range 38, Eunice, New Mexico, Cook-Joyce, November 19, 2003 [ADAMS Accession No. ML041910481]

10. According to the NEF application, seven monitor wells are to be installed at the facility.[7] As to each such well, please state:

a. Which units will such well monitor?

b. What constituents will be monitored by such well?

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[7] Louisiana Energy Services, 2004a, figure 6.1-2.

RESPONSE:

LES objects to this request on the grounds that NIRS/PC have not demonstrated that this information could not have been obtained from another source, including, without limitation, the NEF Environmental Report and the NRC Staff's Draft Environmental Impact Statement for the proposed facility. Notwithstanding, and without waiving these objections, LES states as follows.

As described in the NEF Environmental Report, groundwater will be monitored at five locations.

a. As described in the NEF Environmental Report, monitoring will occur in both the shallow sand and gravel layer on top of the red bed and in the 70-m (230-ft) groundwater zone.

b. Constituents that will be monitored are described in the following documents:

(1) NEF Environmental Report (Section 6.1.2)

(2) NEF Ground Water Discharge Permit Application to the State of New Mexico Environment Department, Ground Water Quality Bureau (Section 6) [ADAMS Accession No. ML041910481]

11. According to the NEF application, water was found in Chinle monitor well MW-2.[8] Please state your best judgment as to where this water came from, and describe any documents relating or referring to such water.

RESPONSE:

LES objects to this request on the ground that it is vague and ambiguous in its use of the phrase "where this water came from." Notwithstanding, and without waiving this objection, LES states as follows.

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[8] Louisiana Energy Services, 2004a, page 3.4-7.

The water in the siltstone is judged by LES to be ancient natural formation water. The occurrence of water in this zone is described in the following documents:

(1) NEF Safety Analysis Report (Section 3.2)

(2) NEF Environmental Report (Section 3.4)

(3) NEF Ground Water Discharge Permit Application to the State of New Mexico Environment Department, Ground Water Quality Bureau (Section 5)

(4) Hydrogeologic Investigation, Section 32, Township 21, Range 38, Eunice, New Mexico, Cook-Joyce, November 19, 2003 [ADAMS Accession No. ML041910481]

12. Please state whether water has been found in any other wells at the site. If so, please state your best judgment as to where this water came from, and describe any documents relating or referring to such water.

RESPONSE:

LES objects to this request on the ground that it is vague and ambiguous in its use of the phrase "where this water came from." Notwithstanding, and without waiving this objection, LES states as follows.

Assuming that the reference to "water" means groundwater, groundwater has not been found at any wells at the site other than in MW-2.

13. According to the application, a pesticide was detected in a groundwater sample collected from Chinle monitor well MW-2.[9] It is stated in the Environmental Report that the detection was "*. . . likely due to field or laboratory contamination.*"[10] Please explain the basis for this claim and describe any documents relating or referring to such detection or its interpretation.

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[9] Louisiana Energy Services, 2004a, page 3.4-8.

[10] Louisiana Energy Services, 2004a, page 3.4-8.

RESPONSE:

The above-quoted statement from the NEF Environmental Report was based on a judgment by LES that this groundwater zone was well isolated from surface contamination. Additional sampling was undertaken to collect baseline environmental data to corroborate the statement. This initial groundwater sampling event occurred shortly after well installation. Subsequent rounds of sampling have not detected any pesticides in MW-2.

14. Please state your best judgment whether, if contaminants are detected in groundwater at the proposed NEF facility, it will be possible to distinguish them from contaminants that may have originated at the Andrews County, Texas Waste Control Specialists site or the Lea County Landfill? If so, please explain how such distinction will be made and describe any documents relating or referring to such possible distinction.

RESPONSE:

LES objects to this request on the ground that NIRS/PC have not demonstrated that this information could not have been obtained from another source, including, without limitation, the NEF Environmental Report and the NRC Staff's Draft Environmental Impact Statement for the proposed facility. Notwithstanding, and without waiving this objection, LES states as follows.

LES believes it will be possible to differentiate potential contamination from the National Enrichment Facility with that from nearby facilities. The basis for this judgment is described in the NEF Environmental Report (Section 6.1.2).

15. The NEF application states that the Santa Rosa Aquifer " . . . *is considered not potable.*"[11] Please explain the basis for such statement and describe any documents relating or referring to such statement.

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[11] Louisiana Energy Services, 2004a, page 4.12-9.

RESPONSE:

The statement was based on verbal information provided by Waste Control Specialists (WCS) staff and the results of laboratory analysis of a sample of Santa Rosa aquifer water from a WCS well in the Santa Rosa aquifer. The results of the laboratory analysis are contained in a document entitled "Analytical Report, Project CW Well, Lot # D2E290137 for Waste Control Specialists," dated June 10, 2002, by Severn Trent Services. A copy of this document will be furnished to NIRS/PC.

16. With respect to water contained in the Santa Rosa aquifer, please describe any document relating or referring to such water, and state:

    a. The elevation, volume, and direction of flow of such water.

    b. The rate of flow.

    c. The point of discharge.

RESPONSE:

LES objects to this request on the ground that (1) it is vague and ambiguous in its use of the phrase "elevation, volume, and direction of flow of such water;" (2) it constitutes an impermissible compound question (in that subpart a. seeks information on multiple parameters); (3) NIRS/PC has not demonstrated that the information requested could not have been obtained from another source; and (4) it seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii). Notwithstanding, and without waiving these objections, LES states as follows.

a. The depth to the Santa Rosa Formation and document from which this information was obtained is provided in the NEF Environmental Report (Section 3.3). The reference document has previously been provided by LES to the NRC (Letter NEF #04-019 dated

May 20, 2004, from R. M. Krich (Louisiana Energy Services, L.P.) to Director, Office of Nuclear Material Safety and Safeguards (NRC) regarding "Response to NRC Request for Additional Information Regarding the National Enrichment Facility Environmental Report") (ADAMS Accession Package No. ML041770112). As described in the NEF Environmental Report (Section 3.4), due to the depth below land surface of this unit, and the fact that the thick Chinle clay unit would limit any potential migration to depth, this aquifer was not investigated further by LES, nor does LES believe that any further investigation is required. Therefore, no information on volume or direction of flow is in the possession of LES.

b. As described in the NEF Environmental Report (Section 3.4), due to the depth below land surface of this unit, and the fact that the thick Chinle clay unit would limit any potential migration to depth, this aquifer was not investigated further by LES, nor does LES believe that any further investigation is required. Therefore, no information on the rate of flow is in the possession of LES.

c. As described in the NEF Environmental Report (Section 3.4), due to the depth below land surface of this unit, and the fact that the thick Chinle clay unit would limit any potential migration to depth, this aquifer was not investigated further by LES, nor does LES believe that any further investigation is required. Therefore, no information on the point of discharge is in the possession of LES.

17. Please state whether any studies or other evaluations have been performed to determine whether there are fractures or other fast flow pathways that could allow water to flow rapidly from the alluvium to the Chinle, or from the Chinle to the Santa Rosa. If so, please describe each document relating or referring to such study, evaluation, or the results thereof.

RESPONSE:

LES objects to this request on the grounds that (1) it is vague and ambiguous in its use of the phrases (a) "any studies or other evaluations," (b) "fractures or other fast flow pathways," and (c) "allow water to flow rapidly;" (2) NIRS/PC have not demonstrated that the requested information could not have been obtained from another source; and (3) the request appears to seek additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii). Notwithstanding and without waiving these objections, LES states as follows.

The existence of "fractures or other fast flow pathways" was assessed through review of NEF site boring logs (nine hydrogeologic and five geotechnical), information in Waste Control Specialists (WCS) reports, the existence of the dense Chinle (red bed) clay under the site and familiarity of this structure in the vicinity of the site, hydraulic conductivity and permeability data obtained at the NEF and WCS sites, and the confined siltstone layer, at approximately 230 feet below ground, with measured high piezometric levels. The information, when viewed together, does not indicate that fractures and fast flow paths exist under the National Enrichment Facility site. The boring logs and documents that were reviewed as part of this assessment have been provided by LES (Letter NEF #04-019 dated May 20, 2004, from R. M. Krich (Louisiana Energy Services, L.P.) to Director, Office of Nuclear Material Safety and Safeguards (NRC) regarding "Response to NRC Request for Additional Information Regarding the National Enrichment Facility Environmental Report").

18. In the NEF application, the complete composition of the UF_6 feedstock has not been specified.[12] Please identify all substances (including trace metals and organics) that may be contained in the feedstock and their proportion by weight or volume.

RESPONSE:

LES objects to this request on the grounds that (1) it is vague and ambiguous in its use of the phrase "complete composition of the UF_6 feedstock" and (2) constitutes an impermissible compound question. Notwithstanding, and without waiving these objections, LES states as follows.

The NEF Safety Analysis Report, at Table 1.2-1, indicates that LES will require UF_6 suppliers to provide Commercial Natural UF_6 in accordance with ASTM C 787-96, "Standard Specification for Uranium Hexafluoride for Enrichment." ASTM C 787-96 specifies the composition of the UF_6 feed material. LES has further indicated that it will require cylinder suppliers to preclude use of cylinders that, in the past, have contained reprocessed UF_6, unless such cylinders have been decontaminated. *See* SAR Table 1.2-1, note (1).

19. The application states that water used at the proposed facility would be pumped from the Lea County Underground Water Basin (Ogallala Aquifer).[13] Groundwater in this basin is being pumped at a rate faster than it is being recharged.[14] Please state, with reference to the projected operating life of the NEF and any period of decommissioning and closure activities, how such pumpage is expected to affect water levels and the productivity of the Lea County Underground Water Basin.

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12 Louisiana Energy Services, 2004a, page 1.2-2.

13 Louisiana Energy Services, 2004a, page 4.4-5; and Leedshill-Herkenhoff, 2000, page 1 of Executive Summary and page 7-2.

14 Leedshill-Herkenhoff, 2000, page 1 of Executive Summary and page 5-4.

RESPONSE:

LES objects to this request on the grounds that (1) it is misleading to the extent it suggests that LES itself will pump water from the Lea County Underground Water Basin; (2) it is vague and ambiguous in its use of the phrase "affect water levels and the productivity of;" (3) it constitutes an impermissible compound question; (4) NIRS/PC have not demonstrated that this information could not have been obtained from another source, including, without limitation, the Applicant's Environmental Report and the NRC Staff's Draft Environmental Impact Statement for the proposed facility; and (5) it appears to seek additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii). Notwithstanding, and without waiving these objections, LES states as follows.

Given the low relative percentage of water use by the National Enrichment Facility, as a percentage of the total withdrawals from the supply aquifer, the impact of the National Enrichment Facility during operation, decommissioning and other closure activities on water levels and production within the supply aquifer will be commensurate with the low relative percentage of water use.

20. The Environmental Report, page 1.1-6, gives the future enrichment tails assay for enrichment facilities in the United States as 0.32%. Please state whether this is also the assumed average tails assay for the NEF. If it is not, please give the assumed average tails assay for the NEF for each year of projected operation, along with the corresponding average over the life of the NEF.

RESPONSE:

LES objects to the request contained in the third sentence of Interrogatory 20 on the grounds that it is irrelevant and not reasonably calculated to lead to the discovery of admissible

evidence in this proceeding. Notwithstanding, and without waiving this objection, LES states as follows:

The Environmental Report assumes a tails assay of 0.32% as the future average tails assay that would be selected by U.S. electric utility companies in contracting for uranium enrichment services, whether those services are purchased from the NEF or elsewhere. LES has assumed a tails assay range of 0.20% to 0.36% for the NEF.

21. Using the term "standard reload" to denote the quantity of enriched uranium required to manufacture an annual reload for a standard 1000-MW light water reactor, please state how many "standard reloads" LES anticipate that the NEF will be able to produce per year.

RESPONSE:

LES objects to this request on the grounds that (1) the terms "standard reload" and "standard 1000-MW light water reactor" are vague and ambiguous (in that reloads do not necessarily occur on an annual basis and LES is not aware of a "standard reactor" with a rating of 1000 MW); (2) the request is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding, and (3) the request seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii).

22. In the application, on page 1.1-6 of the Environmental Report, assumed future tails assay are given for the U.S. and U.K. (0.32%), Japan (0.28%-0.30%), France (0.27%), the CIS states and Eastern Europe (0.11%), and all other (0.30%). Please give the informational bases for these figures, and describe any documents referring or relating to such figures.

RESPONSE:

The use of these figures in the Environmental Report forecast of enrichment services requirements is documented in the input data file that will be provided in response to Document Request 14. These figures are generally consistent with those presented in other published analyses. Environmental Report reference WNA 2003 assumes tails assays of 0.30% to 0.33%, except for in the C.I.S. and Eastern Europe, for which tails are taken to be 0.1%. *See* Environmental Report reference WNA 2003, page 73 and Table IV.4. Tails Assays.

23. With regard to (a) the assumed future tails assays stated on page 1.1-6 of the Environmental Report and (b) the annual estimates of world enrichment requirements (after adjusting for plutonium recycle) given in Table 1.1-3, please state your best estimate as to what the figures in Table 1.1-3 would be if the assumed tails assays were increased by 50% (*e.g.*, if the 0.32% for the U.S. and U.K. became 0.48%), while the output enrichment levels (in terms of the percentage of U-235 in the product stream) were unchanged. Please state all assumptions and calculations used in answering this question.

RESPONSE:

LES objects to this request on the grounds that (1) NIRS/PC have not demonstrated that the information requested could not have been obtained from another source, and (2) the request seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii).

24. Please refer to the scenario of higher tails assays outlined in the preceding questions. Please provide LES's best estimates of the impact (in terms of both annual quantities of materials and annual average unit costs) of increasing the tails assays, as stated above, on the other states of the nuclear fuel cycle (mining, conversion, fabrication, disposal, etc.). Please state all assumptions and calculations used in answering this question, and describe all documents relating or referring to such estimates.

RESPONSE:

LES objects to this request on the grounds that (1) it is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding; (2) it seeks information beyond the scope of any admitted contention; and (3) it is an improper and confusing compound question that inquires into numerous separate matters; (4) it is unduly broad and burdensome; (5) NIRS/PC have not demonstrated that the information requested could not have been obtained from another source; and (6) the request seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii).

25. Tables 1.1-1 and 1.1-3 of the Environmental Report list projected nuclear power capacity and annual enrichment requirements for five different years (or intervals) during 2002-2020 for the world as a whole and for five world regions. The ratio of installed capacity (in gigawatts) to enrichment requirements (in million SWU) differs considerably among the regions. (For example, for the U.S. the ratio is around 8 to 9, while the ratio for Western Europe is around 11, with 6 for CIS & E. Europe, 9 to 10 for East Asia, and 20 to 30 for Other). As to each region, please explain why in your judgment, the ratio differs from the regions. If differences among the respective ratios are partly attributed to different usage of mixed oxide fuel, please quantify that effect. Similarly, if some of the differences are attributed to greater (or lesser) startups of new reactors (with correspondingly greater or lesser fuel requirements), please quantify that effect. If other factors also account for some of the differences, please describe and quantify the effects of each. Please describe all documents relating or referring to such estimates.

RESPONSE:

LES objects to this request for the same reasons set forth in Response to Interrogatory 24, *supra*, which are incorporated by reference in this response.

26. At page 1.1-9 of the Environmental Report, it is said that "the annual nameplate capability [of the Paducah gaseous diffusion plant] of 11.3 million [SWU] is not physically attainable without capital upgrades to the plant, which are not expected." As to the capital upgrades, please state:

a. A brief description of each upgrade.

b. The projected capital and operating cost of such upgrade.

c. The contribution such upgrade would make to the capacity of the plant.

d. The capacity of the Paducah plant without such upgrade.

e. An explanation why such upgrade is not expected, and

f. Please describe all documents relating or referring to such possible upgrades.

RESPONSE:

LES objects to this request on the grounds that (1) it seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding; (2) it seeks information beyond the scope of any admitted contention; (3) it is unduly broad and burdensome; (4) NIRS/PC have not demonstrated that the information requested could not have been obtained from another source; (5) it seeks information that may be proprietary and is not within LES's possession or control; and (6) it seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii). Notwithstanding, and without waiving these objections, LES states as follows.

Environmental Report reference USEC 2002a (*see* LES mandatory initial disclosures at LES-02449) states: "USEC estimates that the maximum capacity of the existing equipment is about 8 million SWU per year."

27. On page 1.1-9 of the Environmental Report it is stated, "LES estimates that approximately 1.5 million SWU per year of the 8 million SWU capability [of the Paducah plant] is not economically competitive due to very high electric power costs in that operating range." Please explain this statement, and include:

a. Actual or estimated electric power costs termed "very high."

b. The "operating range" referred to.

c. Actual or estimated power costs that apply outside the range referred to.

d. An explanation of the derivation of the "approximately 1.5 million SWU" figure, and

e. A description of all documents relating or referring to such estimates.

RESPONSE:

LES objects to this request for the same reasons set forth in Response to Interrogatory 26, *supra*, which are incorporated by reference in this response. Notwithstanding, and without waiving these objections, LES states as follows.

Environmental Report Reference USEC 2002a (*see* LES mandatory initial disclosures at LES-02449) states: "USEC produces about 5 million SWU per year consistent with power purchase economics and purchases under the Russian Contract." Furthermore, Environmental Report Reference FF 1999 (*see* LES mandatory initial disclosures at LES-02441), which refers to the Eurodif gaseous diffusion plant at Pierrelatte, France, states: "Its production capacity is a little less than 11 million SWU per year. But to optimize electricity consumption, we run at roughly 70 percent of this capacity." If 70% is applied to the 8 million SWU capability of the Paducah plant, this yields 5.6 million SWU per year.

28. On page 1.1-10 of the Environmental Report it is said that 10 million SWU of annual enrichment capacity in Russia "does not meet material specifications for use in Western power plants." Please explain this statement, and include:

a. A description of the purported mismatch(es) in material specifications.

b. A description of the changes in the design and/or operation of the Russian enrichment capacity that would enable it to meet Western specifications.

c. Your best estimate of the capital and operating costs associated with such changes, and

d. A description of all documents relating or referring to such asserted mismatches or estimates.

RESPONSE:

LES objects to this request for the same reasons set forth in Response to Interrogatory 26, *supra*, which are incorporated by reference in this response. Notwithstanding, and without waiving these objections, LES states as follows.

The Russian "material specification" issue is alluded to in Environmental Report reference NEIN 1994 (*see* LES mandatory initial disclosures at LES-02500 to LES-02503.) Based on more recent information, LES believes the Russian production capacity may be capable of meeting ASTM specifications.

29. On page 1.1-12 of the Environmental Report it is stated that "the U.S. defense establishment is reported to hold approximately 490 metric tons [of] HEU in various forms," and a 1997 report is cited. Please give your most current estimate of the amount of highly enriched uranium being held by the U.S. defense establishment, and describe the source documents.

RESPONSE:

To the best of LES's knowledge, the figure cited in the Environmental Report – approximately 490 metric tons of HEU – is the "most current estimate." The source document is Environmental Report reference Albright 1997 [Albright, Peter, et al., "Plutonium and Highly Enriched Uranium 1996, World Inventories, Capabilities and Policies," Oxford University Press, 1997]. *See* LES mandatory initial disclosures at LES-02711 to LES-02725 and LES-02819 for relevant excerpts from Albright 1997.

30. Eight scenarios are outlined in the "Market Analysis" in Section 1.1.2.4 of the Environmental Report. For each such scenario, please:

a. State your best estimate of the average (for either the U.S. or the World) cost per SWU (either annual or "lifetime" averages) associated with such scenario,

b. Explain the derivation of such cost figures, and

c. Describe any documents relating or referring to such estimates.

RESPONSE:

LES objects to this request on the grounds that (1) it seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding; (2) it seeks information beyond the scope of any admitted contention; (3) it is unduly broad and burdensome; (4) it is an improper compound question (in that it seeks information with respect to "eight scenarios"); (5) NIRS/PC have not demonstrated that the information requested could not have been obtained from another source; and (6) it seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii). Notwithstanding, and without waiving these objections, LES states as follows.

As set forth in the NEF Environmental Report (Section 1.1), LES's analysis of the "need" for the NEF is not premised on an analysis of the effect of the NEF on the cost per SWU.

31. At page 1.1-19 of the Environmental Report you refer to the "negative financial impact of operating [the] Paducah [gaseous diffusion plant] at low production levels" (less than 3 million SWU per year). Please:

a. Quantify this negative impact,

b. Explain the derivation of such figure, and

c. Describe any documents referring or relating to such calculations.

RESPONSE:

LES objects to this request on the grounds that (1) it seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding; (2) it seeks information beyond the scope of any admitted contention; (3) it seeks information that may be proprietary and is not within LES's possession or control; (4) it seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii).

32. Table 1.1-5 of the Environmental Report states the capacity of Urenco's centrifuge enrichment facility in Europe as 6.0 million SWU per year in 2002, increasing to 6.5 million by the end of 2003 and to 8.0 million during or before 2016. Please state:

    a. The total enrichment services (in SWU per year) that this Urenco facility provided to U.S. reactor customers in each of the five most recent years for which data are available, and

    b. Your latest projections of the total enrichment services (in SWU per year) that this Urenco facility is expected to provide to U.S. reactor customers in each of the ten years immediately following those five years, and

    c. Please describe all documents relating or referring to such services or projections.

RESPONSE:

LES objects to this request on the grounds that (1) it seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding; (2) it seeks information beyond the scope of any admitted contention; (3) it seeks information that may be proprietary (to U.S. reactor customers) and is not within LES's possession or control; (4) NIRS/PC have not demonstrated that the requested information could not have been obtained from another source; (5) it seeks additional research or analytical work that is not needed to support LES's position on any particular matter (*see* 10 C.F.R. § 2.705(b)(5)(ii)); and

(6) NIRS/PC have not demonstrated that the information requested could not have been obtained from another source, including, without limitation, documents previously provided by LES to NIRS/PC. Notwithstanding, and without waiving these objections, LES states as follows.

The Environmental Report evaluates the relationship between total world supply capacity and total world requirements. It does not attempt to match specific sources of supply with specific requirements on a country-by-country basis.

33. On page 1.1-21 of the Environmental Report you state that "Urenco perceives building new centrifuge capability in the U.S. as a more attractive option [than] expanding its centrifuge enrichment capability in Europe." Please state the estimated total cost per SWU, on a straight cost basis, of new centrifuge enrichment capability (a) in Europe and (b) at the NEF facility in New Mexico. Please provide all supporting assumptions and calculations, and describe all documents relating or referring to such estimates.

RESPONSE:

LES objects to this request on the grounds that (1) it seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding; (2) it seeks information beyond the scope of any admitted contention; (3) it seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii). Notwithstanding, and without waiving these objections, LES states as follows.

As set forth in the NEF Environmental Report (Section 1.1), LES's analysis of the "need" for the NEF is not premised on an analysis of the impact of the NEF on the cost per SWU.

34. Page 1.2-1 of the Environmental Report gives the estimated construction cost of the NEF as approximately $1.2 billion in 2002 dollars (excluding escalation, contingency, interest, tails disposition, decommissioning and equipment replacement). Please:

a. Indicate how this estimate is broken down by calendar year (*i.e.*, please provide your complete cash-flow projection consistent with this estimate),

b. Provide estimates of the costs associated with escalation, contingency, interest and equipment replacement (giving separate estimates for each item), either on a dollar basis or a percentage basis, as appropriate,

c. Break down the total cost estimate among major expenditure categories such as (but not limited to) technology license fees, design, architect-engineer costs, construction management, plant equipment, construction equipment, construction materials, land, buildings, skilled labor, manual labor, and supplies,

d. Include complete descriptions of how costs were estimated for each of these categories, and

e. Describe all documents referring or relating to such calculations.

RESPONSE:

LES objects to this request on the grounds that (1) it seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding; (2) it seeks information beyond the scope of any admitted contention; (3) NIRS/PC have not demonstrated that the requested information could not have been obtained from another source, including documents previously provided by LES to NIRS/PC; and (4) it seeks additional research or analytical work that is not needed to support LES's position on any particular matter (*see* 10 C.F.R. § 2.705(b)(5)(ii)).

35. On page 2.1-5 of the Environmental Report you state that Lea County, N.M., is expected to issue an industrial revenue bond for the NEF in the amount of $1.8 billion. Please explain why LES is seeking $1.8 billion in bond funding for a project whose cost is currently estimated to be $1.2 billion (in 2002 dollars), and describe any documents relating or referring to such bond funding.

RESPONSE:

LES objects to this request on the grounds that it (1) seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding, and (2) seeks information that is beyond the scope of any admitted contention.

36. Please provide all calculations leading to all of the entries contained in Tables 4.13-2, 4.13-3, and 4.13-4 of the Environmental Report.

RESPONSE:

LES objects to this request on the grounds that (1) it is an improper compound question, and (2) NIRS/PC have not demonstrated that the requested information could not have been obtained from another source, including, without limitation, documents previously produced by LES (as part of its mandatory initial disclosures) and the publicly available source document cited in Tables 4.13-2, 4.13-3, and 4.13-4 of the Environmental Report. *See* LLNL 1997a, "Cost Analysis Report for the Long-Term Management of Depleted Uranium Hexafluoride," UCRL-AR-127650, Lawrence Livermore National Laboratory, H. Elayat, J. Zoller, and L. Szytel (May 1997).

37. Please provide a full description of the terms of the financial assurance that LES intends to furnish as assurance for disposing of depleted uranium, as referenced on Page 4.13-3 of the Environmental Report.

RESPONSE:

LES objects to this request on the grounds that it (1) seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding, and (2) seeks information that is beyond the scope of any admitted contention. None of the

NIRS/PC contentions *admitted* by the Licensing Board in LBP-04-14 (July 19, 2004) pertains to the issue of financial assurance.

38. When (as to month and year), in LES's estimation, will the planned DOE conversion facilities at Portsmouth, OH and Paducah, KY be ready to receive depleted UF_6 from the NEF? Please provide the assumptions and reasoning underlying this estimate.

RESPONSE:

LES objects to this request on the grounds that it (1) seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding, and (2) seeks information that is beyond the scope of any admitted contention. The only issues admitted by the Licensing Board with respect to a deconversion facility are set forth in contentions NIRS/PC EC-3/TC-1, Basis B (regarding discussions with Cogema concerning a private deconversion facility) and NIRS/PC EC-4 (regarding the environmental impacts of construction and lifetime operation of a deconversion facility). *See* LBP-04-14, Appendix A (July 19, 2004).

39. Table 10.1-14 of the Safety Analysis Report estimates the cost (in January 2002 dollars) to decommission the NEF as $837.5 million, of which $731.2 million is the cost of tails disposition, and $106.3 million is the cost of the separation modules and other buildings. Please identify at least three other decommissioned facilities that qualify as templates to estimate the cost to decommission the NEF, and as to each please:

    a. Give the costs (in constant dollars referenced to an appropriate year) actually expended to decommission each facility,

    b. Indicate the source(s) of each of the cost figures, and

    c. Explain how the historical cost figures do (or do not) support the cost estimate of $106.3 million to decommission the NEF (exclusive of tails disposition).

RESPONSE:

LES objects to this request on the grounds that (1) it is vague and ambiguous insofar as it uses the phrase "qualify as templates;" (2) it seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding; (3) it is unduly broad and burdensome; (4) NIRS/PC have not demonstrated that the requested information could not have been obtained from publicly available sources (to the extent it is not proprietary); and (5) it seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii).

40. On page 10.1-3 of the Safety Analysis Report you state that "Activities and costs [for decommissioning the NEF] are based on actual decommissioning experience in Europe." As to the decommissioning experience referred to, please state:

    a. The facility (or facilities) referred to,

    b. The date(s) on which they were decommissioned,

    c. The total costs (in constant U.S. dollars) of decommissioning, and

    d. The total costs, set forth in major categories using the same level of detail as in the Application.

RESPONSE:

a. Decommissioning experience has been gained from the decommissioning of the following Urenco plants: K Bay and E21 at Capenhurst and SP1/SP2 (portions) at Almelo.

b & c. Urenco recently completed decommissioning of the E21 plant at Capenhurst. The decommissioning of E21 was conducted from 1994 to 2000. The cost for decommissioning the E-21 facility, in actual UK pounds (for the years in which the pounds were expended), is provided in "Table 40-1, Summary of Project

Decommissioning Costs for E21." Because it contains proprietary information, Table 40-1 has been provided in a proprietary supplement to this filing (served by deposit in U.S. mail). *See* "Proprietary Supplement to Applicant's Objections and Responses to Interrogatories and Document Requests from Nuclear Information and Resource Service and Public Citizen" (Sept. 23, 2004).

d. The requested cost breakdown for E21 decommissioning is not available in the license application format. Cost breakdown information is provided in the format shown in the "Table 40-1, Summary of Project Decommissioning Costs for E21." Because it contains proprietary information, Table 40-1 has been provided in a proprietary supplement to this filing (served by deposit in U.S. mail). *See* "Proprietary Supplement to Applicant's Objections and Responses to Interrogatories and Document Requests from Nuclear Information and Resource Service and Public Citizen" (Sept. 23, 2004).

41. Page 10.1-2 of the Safety Analysis Report lists a half-dozen "key assumptions" made by LES in developing decommissioning cost estimate for the NEF, namely, (1) that the NEF will operate "routinely" over its life, (2) that non-radioactive materials and structures will not have to be removed or disposed of beyond the work necessary to terminate the NRC license, and (3) that present-day regulatory requirements will govern the work. Please state:

a. Whether, and to what extent, these assumptions are necessary to support the 25% contingency allowance indicated in Table 10.1-14 of the Safety Analysis Report,

b. An allocation of components of this 25% allowance to each of the three assumptions noted,

c. How 25% was selected as the contingency allowance, setting forth your calculations and indicating the contingencies it is intended to capture, and

d. Describe all documents relating or referring to a contingency allowance in estimating decommissioning costs.

RESPONSE:

LES objects to this request on the grounds that (1) subparts b. and c. seek additional research or analytical work that is not needed to support LES's position on any particular matter (*see* 10 C.F.R. § 2.705(b)(5)(ii)) (insofar as they request an "allocation" and "calculations"); (2) it is unduly broad and burdensome insofar as subpart d. refers to "all documents relating or referring to a contingency allowance in estimating decommissioning costs." Notwithstanding, and without waiving these objections, LES states as follows.

a. The contingency is applied to address future uncertainty in accordance with NUREG-1757. *See* NEF Safety Analysis Report (Section 10.2, Table 10.1-14).

b. No additional response is being provided.

c. In response to NRC RAI # D-2 (Letter NEF #04-018 dated May 19, 2004, from R. M. Krich (Louisiana Energy Services, L. P.) to Director, Office of Nuclear Material Safety and Safeguards (NRC) regarding "Response to NRC Request for Additional Information Regarding National Enrichment Facility Safety Analysis Report and Emergency Plan"), the 10% contingency factor was increased to 25% in accordance with NRC guidance from NUREG-1757. NUREG-1757 states that because of the uncertainty in contamination levels, waste disposal costs, and other costs associated with decommissioning, the cost estimate should apply a contingency factor of 25% to the sum of all estimated decommissioning costs. NUREG-1757 also states that the 25% contingency factor provides reasonable assurance for unforeseen circumstances that could increase decommissioning costs, and should not be reduced or eliminated simply because foreseeable costs are low. This contingency factor is consistent with the analysis and guidance in NUREG/CR-6477, which applies a 25% contingency factor to all

estimated costs associated with decommissioning various reference facilities. Therefore, the 25% contingency factor was equally applied to the decommissioning costs in Table 10.1-14 of the NEF Safety Analysis Report.

d. (1) NUREG-1757, Consolidated NMSS Decommissioning Guidance, Final Report

(2) NUREG/CR-6477, Revised Analysis of Decommissioning Reference Non-Fuel-Cycle Facilities

42. Please provide a full description of the "surety method" to which LES refers on page 10.2-1 of the Safety Analysis Report in discussing decommissioning of the NEF, stating:

a. The identity of the parties that will guarantee decommissioning,

b. The specific financing mechanisms that will furnish financial assurance,

c. The cost of such financial assurance, and

d. Explain the statement, "LES intends to provide continuous financial assurance from the time of receipt of licensed material to the completion of decommissioning and termination of the license" (SAR, page 10.2-1). (In other words, how, exactly, will this financial assurance be provide?)

RESPONSE:

LES objects to this request on the grounds that it (1) seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding, and (2) seeks information that is beyond the scope of any admitted contention. None of the NIRS/PC contentions admitted by the Licensing Board in LBP-04-14 (July 19, 2004) pertain to the issue of financial assurance. Indeed, NIRS/PC did not raise this issue in their petition to intervene.

43. Please state your best estimate of the rate (in dollars per year) at which LES will provide financial assurance for decommissioning for (a) accumulated enrichment tails and (b) the NEF equipment and buildings. The answer should be in the form of two annual schedules of cumulative financial assurance (for the tails and the equipment respectively).

RESPONSE:

LES objects to this request for the same reasons set forth in Response to Interrogatory 42, *supra*, which are incorporated by reference in this response.

44. Referring to Table 10.1-11 of the Safety Analysis Report, and to the two rows under the heading "Separation Building Modules," please explain the relationship between the figures in the column labeled "Quantity" (given as 45,210 square fee for both rows), the figures in the column labeled "Unit Cost" (1,545 and 294, respectively, in $/unit), and the figures in the column "Total Cost Equipment" ($6,490,000 and $1,240,000, respectively).

RESPONSE:

The "unit cost" values are in error and should be $\$143.5/ft^2$ and $\$27.3/ft^2$, respectively. The values currently shown are in $\$/m^2$. The values shown for "total cost equipment" are correct. The NEF Safety Analysis Report will be revised to incorporate this correction in a future revision.

45. Please state whether you, LES, take the position that depleted uranium hexafluoride (DUF_6) or any derivative thereof, generated as a byproduct of enrichment operations at the NEF, would or would not constitute waste, and explain the basis for your position.

RESPONSE:

LES objects to this request on the grounds that (1) it is vague and ambiguous in its use of the terms "any derivative thereof" and (2) NIRS/PC have not demonstrated that the information requested could not have been obtained from publicly available sources, including, without limitation, Section 4.13.3.1.3 of the Environmental Report. Notwithstanding, and without waiving these objections, LES notes that the issue of the proper waste classification of depleted uranium under 10 C.F.R. Part 61 has been referred to, and is pending before, the Commission. LES has fully set forth its position on that issue in filings with the Commission dated September

8 and September 17, 2004. *See* "Response of Louisiana Energy Services, L.P. to the Question Certified to the Commission By Memorandum and Order (Rulings Regarding Standing, Contentions, and Procedural Administrative Matters" (Sept. 8, 2004); "Reply Brief of Louisiana Energy Services, L.P. on the Certified Question Regarding the Proper Waste Classification of Depleted Uranium" (Sept. 17, 2004).

46. Please identify each occasion on which it has been "ultimately determined" that depleted uranium is low-level radioactive waste, in the sense in which that term is used in Sec. 3113 of the U.S. Enrichment Corporation Privatization Act.

RESPONSE:

LES objects to this request on the grounds that (1) it is vague and ambiguous in its use of the phrases "ultimately determined" and "in the sense in which that term is used in Sec. 3113 of the U.S. Enrichment Corporation Privatization Act;" and (2) NIRS/PC have not demonstrated that the information requested could not have been obtained from publicly available sources. As noted above, the issue of the proper waste classification of depleted uranium under 10 C.F.R. Part 61 has been referred to, and is pending before, the Commission. *See* LES Response NIRS/PC Interrogatory 45, *supra.*

47. Please describe each document relating or referring to whether depleted uranium constitutes low-level radioactive waste, or to a determination whether depleted uranium constitutes low-level radioactive waste.

RESPONSE:

LES objects to this request on the grounds that (1) it is vague and ambiguous in its use of the term "determination;" (2) it is unduly broad and burdensome in that it refers to "each document" (*i.e.*, the request is unbounded by any time or other specific parameters); and (3)

NIRS/PC have not demonstrated that the requested information could not be obtained from another source, including, without limitation, LES's Environmental Report; the NRC Staff's Draft Environmental Impact Statement for the NEF; documents previously disclosed and/or produced to NIRS/PC by LES (as part of LES's mandatory initial disclosures); and briefs submitted by the parties of the certified question now pending before the Commission in this proceeding (regarding the proper waste classification of depleted uranium under 10 C.F.R. Part 61).

48. Please describe each environmental analysis, pursuant to the National Environmental Policy Act, of the possible disposal of depleted uranium (a) in accordance with one or another proposed or final provision of 10 CFR Part 61 or (b) in accordance with orders, rules, or regulations other than 10 CFR Part 61, including but not limited to orders, rules or regulations governing disposal by the U.S. Department of Energy.

RESPONSE:

LES objects to this request on the grounds that (1) it is vague, ambiguous, and confusing in its use of the phrases (a) "environmental analysis," (b) "possible disposal of depleted uranium," and (c) "one or another proposed or final provision of 10 CFR Part 61;" (2) it is unduly broad and burdensome in that it refers to "each environmental analysis" (*i.e.*, the request is unbounded by any time or other specific parameters); (3) seeks information that is irrelevant, beyond the scope of any admitted contention, and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding (*e.g.*, it refers to "orders, rules or regulations governing disposal by the U.S. Department of Energy"); (4) NIRS/PC have not demonstrated that the requested information could not be obtained from publicly available sources (*e.g.*, the NRC's Public Document Room); and (5) it seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii).

49. Please fully describe the form of depleted uranium waste (if any) to be generated by the NEF when it is prepared for disposal, including but not limited to the chemical form, radionuclides present, and the radioactivity of the waste form in nanocuries per gram.

RESPONSE:

LES objects to this request on the grounds that (1) it is an improper compound question that inquires into numerous separate matters (*e.g.*, chemical form, radionuclides present, and radioactivity of the those radionuclides); (2) it is vague and unduly broad and burdensome with respect to its reference to "the form of depleted uranium" (*e.g.*, it states "including but not limited to . . ."); and (3) NIRS/PC have not demonstrated that the information requested could not be obtained from publicly available sources, including, but not limited to, LES's Environmental Report and the NRC Staff's Draft Environmental Impact Statement.

50. Please fully describe the form of depleted uranium waste (if any) currently generated, or planned to be generated, by other United States enrichment plants located, or planned to be located, at Paducah, KY, or Piketon, OH, when prepared for disposal, including but not limited to the chemical form, radionuclides present, and the radioactivity of the waste form in nanocuries per gram.

RESPONSE:

LES objects to this request on the grounds that (1) it is an improper compound and confusing question that inquires into numerous separate matters (*e.g.* it inquires about *multiple* properties of depleted uranium generated *or* to be generated by *multiple* existing *and* future USEC plants); (2) it is vague, ambiguous, and unduly broad and burdensome (for the same reasons); (3) NIRS/PC have not demonstrated that the information requested could not be obtained from another source (*e.g.*, USEC or the Department of Energy); (4) it seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding; (5) it seeks information that is beyond the scope of any admitted contention; and

(6) it seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii).

51. Please identify the regulatory standards that would apply to disposal of depleted uranium waste to be generated by the NEF, if it were disposed of at:

a. Waste Control Specialists in Andrews County, TX.

b. Barnwell, South Carolina.

c. Hanford, WA.

d. Envirocare, in Clive, UT.

e. Nevada Test Site, NV.

RESPONSE:

LES objects to this request in the grounds that (1) NIRS/PC have not demonstrated that the information requested could not be obtained from publicly available sources; (2) any applicable "regulatory standards" speak for themselves; (3) the request seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding; and (4) the request seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii).

52. Please identify the regulatory standards that would apply to disposal of depleted uranium waste after conversion at plants proposed to be built by the U.S. Department of Energy at Paducah, KY, or Piketon, OH.

RESPONSE:

LES objects to this request for the same reasons set forth in Response to Interrogatory 51, *supra*, which are incorporated by reference in this response.

53. Please describe any document containing or referring to an analysis of the possible land disposal of depleted uranium having a radioactivity in excess of 100 nanocuries per gram (a) in accordance with 10 CFR Part 61 provisions applicable to Class A low level waste or (b) in accordance with an other orders, rules, or principles.

RESPONSE:

LES objects to this request on the grounds that (1) it is vague, ambiguous, and confusing in its use of the phrases (a) "possible land disposal," (b) "radioactivity in excess of 100 nanocuries per gram," and (c) "other orders, rules, or principles;" (2) it is unduly broad and burdensome in that it refers to "each document" (*i.e.*, the request is unbounded by any time or other specific parameters); (3) seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding (*e.g.*, it refers to "other orders, rules, or principles"); (4) NIRS/PC have not demonstrated that the requested information could not be obtained from publicly available sources; and (5) it seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii).

54. Please state whether you concur that the mortality factor for U-238 in drinking water, according to the EPA Regulatory Guide, is 1.13E-9 per Becquerel, and that such factor is less than a factor of two less than the mortality factor for Americium-241, a principal transuranic radionuclide. If so, please state whether there is any health-based reason not to dispose of U-238 contaminated waste, of radioactivity in excess of 100 nanocuries per gram, with the same level of security as transuranic waste of similar radioactivity, and state the reasons.

RESPONSE:

LES objects to this request on the grounds that (1) it is vague, ambiguous, and confusing in its use of the phrases (a) "EPA Regulatory Guide," (b) "health-based reason," (c) "U-238 contaminated waste," (d) "radioactivity in excess of 100 nanocuries per gram," (e) "same level of security," and (f) "transuranic waste of similar radioactivity;" (2) it constitutes an improper

compound and confusing question insofar as it inquires into separate matters; (3) it seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding (*e.g.*, LES's view with regard to an EPA Regulatory Guide and drinking water mortality factors); (4) the cited "EPA Regulatory Guide" speaks for itself; (5) NIRS/PC have not demonstrated that the requested information (*e.g.*, the "mortality factor" of U-238 relative to that of Americium-241) could not be obtained from another, publicly available source; and (6) it seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii).

55. If LES seeks to defend the safety of shallow land burial, in accordance with 10 CFR Part 61, as a method to dispose of depleted uranium having a radioactivity in excess of 100 nanocuries per gram and a half life in excess of four billion years, please state your defense of that practice.

RESPONSE:

LES objects to this request on the grounds that (1) it is vague and ambiguous in its use of the phrases (a) "defend the safety of shallow land burial," (b) "radioactivity in excess of 100 nanocuries per gram," and (c) "half life in excess of four billion years; and (2) NIRS/PC have not demonstrated that the information requested could not have obtained from another source, including, without limitation, the Environmental Report, the Draft Environmental Impact Statement, and pleadings filed in this proceeding. *See, e.g.*, "Response of Louisiana Energy Services, L.P. to the Question Certified to the Commission By Memorandum and Order (Rulings Regarding Standing, Contentions, and Procedural Administrative Matters" (Sept. 8, 2004); "Reply Brief of Louisiana Energy Services, L.P. on the Certified Question Regarding the Proper Waste Classification of Depleted Uranium" (Sept. 17, 2004). Notwithstanding, and without waiving these objections, LES notes that any disposal of depleted uranium pursuant to 10 C.F.R.

Part 61 must comply with the applicable requirements set forth in those regulations, which speak for themselves.

56. Please describe your site selection process for a possible underground mine disposal site for depleted uranium and describe any documents concerning such process.

RESPONSE:

LES objects to this request on the grounds that (1) it is vague and ambiguous in its use of the phrase "site selection process;" (2) seeks information that is irrelevant and not reasonably calculated to lead to the discovery of admissible evidence in this proceeding; and (3) lacks a proper legal or regulatory foundation. Notwithstanding, and without waiving these objections, LES states as follows.

As admitted by the Licensing Board, Basis A of contention NIRS/PC EC-3 challenges a statement contained in the Environmental Report regarding possible access to an exhausted uranium mine. Furthermore, as LES has previously stated, the "plausible strategy" standard does not require LES to present a specific proposal or plan for a disposal site. *See* "Answer of Louisiana Energy Services, L.P. to the New Mexico Environment's Request for Hearing and Petition for Leave to Intervene" (Apr. 19, 2004), at 22, 27-29. *Cf. Louisiana Energy Servs., L.P.* (National Enrichment Facility), CLI-04-25, 60 NRC __ (Aug. 18, 2004) (slip op. at 4) ("While a "plausible strategy" for private conversion of the tails does not mean a definite or certain strategy, to include completion of all necessary contractual arrangements, it must represent more than mere speculation."). In this regard, LES need not have selected a specific site for an underground mine disposal site facility through a "site selection process."

Documents relevant to the applicable NIRS/PC contention, as admitted, were previously provided to NIRS/PC as part of LES's mandatory initial disclosures.

57. Please identify each abandoned or disused underground mine that would be available for use as a disposal facility for depleted uranium during the time required to serve the NEF, and as to each:

a. State the exact location of the mine,

b. State the identity of the owner,

c. Describe the status of any discussions concerning the possible use of such mine for disposal of depleted uranium, and

d. Describe any documents relating or referring to the possible use of such mine for disposal of depleted uranium.

RESPONSE:

LES objects to this request for the same reasons set forth in Response to Interrogatory 56, *supra*, which are incorporated by reference in this response.

58. Please state whether you concur with the cost estimates contained in the LLNL Report for the cost of disposing of depleted uranium in an underground mine, and if not, explain your reasons for disagreement.

RESPONSE:

LES objects to this request on the ground that it mischaracterizes the LLNL Report as providing cost estimates for "disposing of depleted uranium in an underground mine." The LLNL report provides cost estimates for disposal of DU_3O_8 in what is referred to as an underground mined cavity. It does not discuss possible disposal in an abandoned uranium mine, such as that considered by the NRC in connection with the proposed Claiborne Enrichment Facility license application review process. Notwithstanding, and without waiving this objection, LES states as follows.

The LLNL costs for disposal in either a concrete vault or a mined cavity are significantly higher than those that were estimated by LES using the model mine costs provided to LES by Western Mine Engineering, Inc. *See* Western Mine Engineering, Inc., "Shrinkage Mining - Shaft Access (UG Mine Production Costs)," Personal Communication from Otto Schumacher to Julian Steyn (Jan. 14, 2003) (LES mandatory initial disclosures at LES-01789 to LES-01792). The Environmental Report specifically states that "[t]he mine cost estimates presented indicate that the assumption of the much higher costs presented in Table 4.13-4, LLNL Estimated Life Cycle Costs for DOE Depleted UF6 Disposal Alternatives for the concrete vault alternative, represents an upper bound cost estimate for depleted U3O8 disposal." LES Environmental Report, §4.13.3.1.6 at 4.13-19 to 4.13-20. The Environmental Report further states that "the capital cost of the concrete vault alternative, which may be obtained by undiscounting the LLNL estimate costs presented in Table 4.14-4, is $350 million in 2002 dollars, or 28 times the capital cost of the 200 MT (220 tons) mine discussed above [on page 4.13-19 of the Environmental Report]."

59. Please describe all documents, not previously produced, concerning or relating to estimates of the cost of disposal of depleted uranium, including but not limited to the cost of constructing an underground mine or other facility for disposal of depleted uranium.

RESPONSE:

To the best of its knowledge, LES has previously identified and/or produced (as part of its mandatory initial disclosures) any documents in its possession that are responsive to this interrogatory. If any additional documents responsive to this request become available, the LES will provide those documents to NIRS/PC.

60. Concerning possible disposal of depleted uranium in an underground mine, please state whether the possible chemical changes occurring to depleted uranium in the form of

DU_3O_8 have been analyzed, state what changes have been identified, identify the effect of such changes on waste containment (*e.g.*, enhanced solubility), and describe any documents concerning such analyses.

RESPONSE:

LES objects to this request on the grounds that it (1) is vague and ambiguous in its use of the phrases "possible chemical changes" and "waste containment;" (2) it is an improper compound question; (3) seeks information that is irrelevant and outside the scope of any admitted contention; and (4) seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii).

61. Please state whether, in most circumstances, uranium is more mobile in soil and rock than (a) plutonium, (b) neptunium, or (c) americium.

RESPONSE:

LES objects to this request on the grounds that (1) it is vague and ambiguous in its use of the phrases "in most circumstances" and "more mobile;" (2) it is an improper compound question; (3) seeks information that is irrelevant and outside the scope of any admitted contention; and (4) seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii).

62. Please identify each person or firm that, to your knowledge, has within the past 20 years considered the possible construction of a plant to convert the depleted uranium hexafluoride produced by a uranium enrichment plant, and as to each, describe any documents relating or referring to such consideration, and state the current state of such person's planning or other consideration.

RESPONSE:

LES objects this request on the grounds that (1) it is unduly broad and burdensome; (2) NIRS/PC have not demonstrated that the information requested could not have been obtained

from another source (*e.g.*, from publicly available DOE environmental impact statements); and (3) the request seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii).

63. Please identify the exact process of conversion of DUF_6 to another form of uranium that LES intends to apply (or have applied) to depleted uranium generated by the NEF,

    a. Identify any byproducts or waste products of that conversion process,

    b. State whether, and to what extent, such byproducts or waste products are expected to contain or include radioactive constituents and if so to what extent,

    c. Identify the disposition process for such byproducts or waste products and the cost or revenue (annually and for the project) to be generated by such byproducts or waste products, and

    d. State the basis for your conclusion, if any, that any such product could be sold commercially.

RESPONSE:

LES objects to this request on the grounds that (1) it seeks additional research or analytical work that is not needed to support LES's position on any particular matter (*see* 10 C.F.R. § 2.705(b)(5)(ii)) and (2) NIRS/PC have not demonstrated that the information requested could have not have been obtained from publicly available sources, including, without limitation, the NEF Environmental Report (Section 4.13), the NRC Staff's Draft Environmental Impact Statement for the NEF (Sections 2.19, 4.2.14.3 to 4.2.14.5), the NRC Staff's Final Environmental Impact Statement for the proposed Claiborne Enrichment Center (NEF Environmental Report reference NRC 1994a) (Appendix A), and Department of Energy environmental impact statements relating to the management, deconversion, and disposition of DUF6 (NEF Environmental Report references DOE 1999, DOE 2004a, DOE 2004b). Notwithstanding, and without waiving these objections, LES notes that, insofar as this

interrogatory is intended to relate to contention NIRS/PC EC-3/TC-1, LES is not required to select an "exact process." Insofar as this interrogatory is intended to relate to contention NIRS/PC EC-4, LES notes, consistent the with Environmental Report (at 4.13-3), that the environmental impact of a UF6 deconversion facility has been previously evaluated generically for the Claiborne Enrichment Center, and that DOE recently issued final environmental impact statements for deconversion facilities to be constructed and operated at Portsmouth, Ohio and Paducah, Kentucky.

64. With regard to the cost data derived from the Lawrence Livermore National Laboratory report referred to in Tables 4.13-2 through 4.13-4 and 4.13-7 of your Environmental Report, please state whether any adjustment is appropriate to account for the difference in throughput and total volume of depleted uranium considered in the LLNL Report, as compared to the proposed NEF. Please explain what adjustment is appropriate and set forth your reasoning and calculations.

RESPONSE:

LES objects to this question on the grounds that (1) it seeks information that is not reasonably calculated to lead to the discovery of admissible evidence in this proceeding; (2) it seeks information that is outside the scope of any admitted NIRS/PC contention; and (3) seeks additional research or analytical work that is not needed to support LES's position on any particular matter. *See* 10 C.F.R. § 2.705(b)(5)(ii).

65. Please describe all documents, not previously produced, concerning or relating to the cost of converting depleted uranium hexafluoride to another form for purposes of disposal.

RESPONSE:

To the best of its knowledge, LES has previously identified and/or produced (as part of its mandatory initial disclosures) any documents in its possession that are responsive to this

. interrogatory. If any additional documents responsive to this request become available, the LES will provide those documents to NIRS/PC.

DOCUMENT REQUESTS

LES will respond to all document requests within 30 days of the service of those requests.

Respectfully submitted,

James R. Curtiss
Martin J. O'Neill
WINSTON & STRAWN LLP
1400 L Street, N.W.
Washington, DC 20005-3502
(202) 371-5700

John W. Lawrence, Esq.
LOUISIANA ENERGY SERVICES, L.P.
100 Sun Avenue, NE
Suite 204
Albuquerque, NM 87109

Dated at Washington, District of Columbia
this 23rd day of September 2004

September 23, 2004

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)	)	

DECLARATION OF GEORGE A. HARPER

George A. Harper states as follows under penalties of perjury:

1. I am Manager of Regulatory Compliance Programs at Framatome ANP. I am providing this declaration pursuant to a technical assistance contract between Framatome ANP and Applicant Louisiana Energy Services, L.P. ("LES").

2. I am duly authorized to verify LES's responses to the "Interrogatories and Document Requests on Behalf of Nuclear Information and Resource Service and Public Citizen to Applicant Louisiana Energy Services, L.P.," specifically, Interrogatory Nos. 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, and 19.

3. I certify that the statements and opinions in such responses are true and correct to the best of personal knowledge and belief.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 23, 2004.

George A. Harper

September 23, 2004

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)	)	

DECLARATION OF JAMES A. KAY

James A. Kay states as follows under penalties of perjury:

1. I am Advisory Engineer at Framatome ANP. I am providing this declaration pursuant to a technical assistance contract between Framatome ANP and Applicant Louisiana Energy Services, L.P. ("LES").

2. I am duly authorized to verify LES's responses to the "Interrogatories and Document Requests on Behalf of Nuclear Information and Resource Service and Public Citizen to Applicant Louisiana Energy Services, L.P.," specifically, Interrogatory Nos. 41, 44.

3. I certify that the statements and opinions in such responses are true and correct to the best of personal knowledge and belief.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 23, 2004.

James A. Kay

September 23, 2004

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)	)	

DECLARATION OF MICHAEL H. SCHWARTZ

Michael H. Schwartz states as follows under penalties of perjury:

1. I am Chairman of the Board of Energy Resources International, Inc., a Principal Consultant to Applicant Louisiana Energy Services, L.P. ("LES").

2. I am duly authorized to verify LES's responses to the "Interrogatories and Document Requests on Behalf of Nuclear Information and Resource Service and Public Citizen to Applicant Louisiana Energy Services, L.P.," specifically, Interrogatory Nos. 20, 22, 23, 26, 27, 28, 29, 30, 32, 33, 58, 59, 65.

3. I certify that the statements and opinions in such responses are true and correct to the best of personal knowledge and belief.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 23, 2004.

Michael H. Schwartz

September 23, 2004

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)	)	

DECLARATION OF JULIAN J. STEYN

Julian J. Steyn states as follows under penalties of perjury:

1. I am President of Energy Resources International, Inc., a Principal Consultant to Applicant Louisiana Energy Services, L.P. ("LES").

2. I am duly authorized to verify LES's responses to the "Interrogatories and Document Requests on Behalf of Nuclear Information and Resource Service and Public Citizen to Applicant Louisiana Energy Services, L.P.," specifically, Interrogatory Nos. 58, 59, 65.

3. I certify that the statements and opinions in such responses are true and correct to the best of personal knowledge and belief.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 23, 2004.

Julian J. Steyn

September 23, 2004

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)	)	

DECLARATION OF ROD M. KRICH

Rod M. Krich states as follows under penalties of perjury:

1. I am Vice President – Licensing, Safety, and Nuclear Engineering for Applicant Louisiana Energy Services, L.P. ("LES").

2. I am duly authorized to verify LES's responses to the "Interrogatories and Document Requests on Behalf of Nuclear Information and Resource Service and Public Citizen to Applicant Louisiana Energy Services, L.P.," specifically, Interrogatory Nos. 5, 18, 19, 40, 63, 65.

3. I certify that the statements and opinions in such responses are true and correct to the best of personal knowledge and belief.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 23, 2004.

Rod M. Krich

September 23, 2004

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)	)	

DECLARATION OF DANIEL GREEN

Daniel Green states as follows under penalties of perjury:

1. I am Senior Consulting Engineer at EXCEL Services Corporation., a consultant to Applicant Louisiana Energy Services, L.P. ("LES").

2. I am duly authorized to verify LES's responses to the "Interrogatories and Document Requests on Behalf of Nuclear Information and Resource Service and Public Citizen to Applicant Louisiana Energy Services, L.P.," specifically, Interrogatory Nos. 5, 18, 40.

3. I certify that the statements and opinions in such responses are true and correct to the best of personal knowledge and belief.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on September 23, 2004.

Daniel Green

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)	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of the "Applicant's Responses to Interrogatories from Nuclear Information and Resource Service/Public Citizen" in the captioned proceeding have been served on the following by e-mail service, designated by **, on September 23, 2004 as shown below. Additional service has been made by deposit in the United States mail, first class, this 23rd day of September 2004.

Chairman Nils J. Diaz
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Commissioner Edward McGaffigan, Jr.
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Commissioner Jeffrey S. Merrifield
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Office of the Secretary**
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Office of Commission Appellate Adjudication
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Office of the General Counsel**
Attn: Associate General Counsel for Hearings, Enforcement and Administration
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Administrative Judge
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James R. Curtiss
Counsel for Louisiana Energy Services, L.P.