

RAS 8445

**RELATED CORRESPONDENCE**

September 9, 2004  
**DOCKETED 09/10/04**

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
LOUISIANA ENERGY SERVICES, L.P.	)	Docket No. 70-3103
	)	
(National Enrichment Facility)	)	

NRC STAFF'S FIRST SET OF INTERROGATORIES  
AND REQUESTS FOR ADMISSION TO NIRS/PC

Pursuant to 10 C.F.R. §§ 2.706(b)(1), and 2.708(a), the NRC staff (Staff) hereby requests that the Nuclear Information and Resource Service (NIRS) and Public Citizen (collectively, NIRS/PC) respond to the following interrogatories and requests for admissions.

Each interrogatory shall be answered separately and fully, in writing, and under oath or affirmation and shall include all pertinent information available to NIRS/PC, its officers, employees, directors, advisors, associates, representatives, consultants, spokespersons or counsel, based upon their personal knowledge, unless it is objected to, in which event the reasons for objection shall be stated in full. The answers shall be signed by the person making them, and the objections by the attorney making them.

GENERAL INSTRUCTIONS

1. To the extent that NIRS/PC does not have specific, complete, and accurate information with which to answer any interrogatory, it should so state, and the interrogatory should be answered to the extent information is available, identifying each person who is believed to have accurate information with respect thereto.
2. The words "and" and "or" shall be construed either conjunctively or disjunctively so as to bring within the scope of these discovery requests any information that might otherwise be construed to be outside their scope.

3. The words “you” and “your” shall be construed to mean NIRS/PC, its officers, employees, directors, advisors, associates, representatives, consultants, spokespersons or counsel.

4. Wherever appropriate, the singular form of a word shall be interpreted in the plural, and vice versa, so as to bring within the scope of these discovery requests any information that might otherwise be construed to be outside their scope.

DEFINITIONS AND GUIDELINES TO BE USED  
IN RESPONDING TO THESE DISCOVERY REQUESTS

- A. "LES" means the applicant, Louisiana Energy Services, L.P.
- B. "Identify" when used in reference to a natural person means to set forth the following:
1. his/her name;
  2. his/her last known residential address;
  3. his/her last known business address;
  4. his/her last employer;
  5. his/her title or position;
  6. his/her area of responsibility;
  7. his/her business, professional, or other relationship with the State; and
  8. If any of the information is changed subsequent to the time period referenced in a particular interrogatory, set forth in the answer, and label appropriately, current information as well as the information applicable to the time period referenced in the interrogatory.
- C. “URENCO” means Urenco Investments, Inc.
- D. “LLNL” means Lawrence Livermore National Laboratory.
- E. “DUF6” means depleted uranium hexafluoride.

- F. “NEF” means the proposed National Enrichment Facility.
- G. “UBC” means the uranium byproduct cylinder.
- H. “DOE” means the United States Department of Energy.
- I. “SWU” means separative work unit.
- J. “ER” means LES’s Environmental Report, as amended.
- K. “HF” means hydrogen fluoride.

### INTERROGATORIES

#### INTERROGATORY NO. 1:

Identify each person who was consulted and/or who supplied information in preparing the NIRS/PC contentions admitted in this proceeding, and identify all documents, reports, texts, literature or other matters reviewed by each person in preparing the admitted contentions.

#### INTERROGATORY NO. 2:

Identify each person who was consulted and/or who supplied information in responding to the requests for admission or interrogatories set forth herein. Indicate for which specific requests for admission, or interrogatories, each person was consulted and/or supplied information. For each such person, identify the individual’s occupation, training and qualifications.

#### INTERROGATORY NO. 3:

Identify any person you will use as a witness in this proceeding to testify regarding the admitted NIRS/PC contentions. If you rely on any such person as an expert witness, state the details of each witness’s education, professional qualifications, and employment history; state the subject matter on which each of the witnesses is expected to testify at the hearing; describe the facts and opinions to which each witness is expected to testify, including a summary of the grounds for each opinion; and identify all documents, data, or other information which each witness has reviewed and considered or is expected to rely on for his or her testimony.

INTERROGATORY NO. 4:

Do you intend to rely on any evidence or testimony presented in a previous proceeding relating to the licensing of a uranium enrichment facility? If so, identify the proceeding and state the nature of the evidence or testimony, including citations to the portions of any transcripts you intend to rely on.

INTERROGATORY NO. 5 (Decommissioning Costs)

State all facts that support your contention that the contingency factor used by LES to determine decommissioning costs is inadequate.

INTERROGATORY NO. 6 (Decommissioning Costs)

Identify all aspects of the decommissioning cost estimate to which you allege an inadequate contingency factor has been applied.

INTERROGATORY NO. 7 (Decommissioning Costs)

State what contingency factor you allege is appropriate and state all facts which support the use of that contingency factor. Specify what specific aspects of the cost estimate you allege should be subject to the contingency factor and what contingency factor should be applied to each identified aspect of the cost estimate. State all facts that support your calculation of the contingency factors identified.

INTERROGATORY NO. 8 (Decommissioning Costs)

State all facts that support your contention that LES has included an inadequate capital cost in estimating decommissioning costs.

INTERROGATORY NO. 9 (Decommissioning Costs)

State what cost of capital you allege is appropriate and all facts which support the use of that cost of capital.

INTERROGATORY NO. 10 (Costs of Management and Disposal of DUF6)

State all facts which support your contention that LES relied on inappropriate cost estimates contained in the LLNL Report for determining the costs for management and disposal of DUF6. Specify any uncertainties which you rely on to support this contention.

INTERROGATORY NO. 11 (Costs of Management and Disposal of DUF6)

Identify what costs in the LLNL or other report you contend should be used to estimate the costs of managing and disposing of DUF6.

INTERROGATORY NO. 12 (Costs of Management and Disposal of DUF6)

State all facts that support your contention that steel used in construction of the NEF would be contaminated and therefore classified as low level waste.

INTERROGATORY NO. 13 (Costs of Management and Disposal of DUF6)

State all facts which support your contention that, because the cost is premised upon disposal in an engineered trench, the cost of disposal estimates provided by LES are inadequate.

INTERROGATORY NO. 14 (Impacts on Ground and Surface Water)

Does your proffered expert witness, George Rice, have any experience evaluating radiological contamination of groundwater or surface water ? If so, please describe in detail such experience.

INTERROGATORY NO. 15 (Impacts on Ground and Surface Water)

Does your proffered expert witness, George Rice, have any experience evaluating environmental reports of NRC license applicants ? If so, please describe in detail such experience.

INTERROGATORY NO. 16 (Impacts on Ground and Surface Water)

As background for this Contention, you reference the fact that stormwater runoff from the LES site (other than from the UBC storage pad) would be directed to an unlined stormwater detention basin. Are you contending there is any risk that such stormwater runoff could become contaminated ? If so, please describe in detail your basis for this position.

INTERROGATORY NO. 17 (Impacts on Ground and Surface Water)

Are you contending that water from the LES lined evaporation ponds would infiltrate into the alluvium beneath the LES site ? If so, please state in full your bases for believing that such infiltration would occur, including whether or not your postulated scenario relies in whole or in part on a pond liner failure, and your estimate as to the likelihood that such pond liner failures would occur.

INTERROGATORY NO. 18 (Impacts on Ground and Surface Water)

Are you claiming that the pond leak detection systems would not be capable of detecting and correcting any pond liner failures ? If so, please describe in detail the bases for this claim.

INTERROGATORY NO. 19 (Impacts on Ground and Surface Water)

Assuming that a pond liner failure was not detected and corrected, are you claiming that contamination of a potable groundwater system would thereby occur ? If so, describe in detail the bases for this claim.

INTERROGATORY NO. 20 (Impacts on Ground and Surface Water)

In reference to basis (d) of this Contention, state any evidence you have for the presence of subsurface fracture zones in the Chinle Formation. Do you agree that low measured permeability rates in the Chinle Formation would indicate the absence of fracture zones there ?

INTERROGATORY NO. 21 (Impacts on Ground and Surface Water)

In basis (d) of this Contention, state the meaning of your term "other fast pathways" used there.

INTERROGATORY NO. 22 (Impacts on Ground and Surface Water)

In reference to basis (e) of this Contention, describe any methods you know of for determining the age of water in either the Chinle Formation or the Santa Rosa Formation.

INTERROGATORY NO. 23 (Impacts on Ground and Surface Water)

If relatively "young" water was found in either the Chinle Formation or the Santa Rosa Formation, would this indicate recharge from the LES site ? If so, describe in detail the bases for this claim.

INTERROGATORY NO. 24 (Impacts on Ground and Surface Water)

In basis (g) of this Contention, the term "the Permian" is used. State whether in using this term you are referring to the Permian Basin, Permian deposits, the Dewey Lake Formation, or to some other geologic feature underlying the LES site.

INTERROGATORY NO. 25 (Impacts on Ground and Surface Water)

In reference to basis (h) of this Contention, are you claiming that LES monitor wells would only monitor conditions in the alluvium. If so, state your bases for making this claim.

INTERROGATORY NO. 26 (Impacts on Water Supplies)

Does your proffered expert witness, George Rice, support your Water Supply contention ? If so, describe in detail his opinions with respect to your Water Supply contention.

INTERROGATORY NO. 27 (Impacts on Water Supplies)

If you do not admit that a private conversion facility constructed and built to accept DUF6 from LES would use the same conversion process proposed for use in the DOE facility -- a continuous dry-conversion process based on the commercial process used by Framatome Advanced Nuclear Power, Inc. fuel fabrication facility in Richland, Washington -- state all facts to support your conclusion that a different technology would be used and specify what technology you allege would be utilized.

INTERROGATORY NO. 28 (DU Storage and Disposal)

If you do not admit that the DOE environmental impact statements listed in Request 4 below would bound the impacts of a private conversion facility constructed and operated to convert the DUF6 at LES, state all facts to support your position.

INTERROGATORY NO. 29 (DU Storage and Disposal)

If you do not admit, in Request 9 below, that formal classification of the waste as low level radioactive waste by the NRC would make DOE disposition of the DU a plausible strategy, state all facts that support your position.

INTERROGATORY NO. 30 (DU Storage and Disposal)

With reference to the DOE environmental impact statements listed in Request 4 below, do you agree with DOE's assessment that extended plant operations would have the environmental impacts presented in Section 5.2.6.2 of DOE/EIS.0359, and Section 5.2.8.2 of DOE/EIS-0360? If not, state all facts to support your conclusion that the DOE DUF6 conversion facilities could not process additional DUF6 outside of their current inventory, and what environmental impacts you allege would result from extended plant operations.

INTERROGATORY NO. 31 (Need for NEF)

State all facts which you claim support your contention that the LES application, as amended, inadequately describes or weighs the social and economic costs of operating the NEF. State each and every aspect of the ER that you claim is inadequate in this regard, and state all bases for each such claim.

INTERROGATORY NO. 32 (Need for NEF)

If you do not admit the accuracy of the SWU data set forth in Request 8 below, provide the data you believe is accurate as to the relative percentage of domestic SWU's that were provided by enrichment plants in the United States in 2002. State the source of your data.

INTERROGATORY NO. 33 (Need for NEF)

State the specific NRC regulation, guidance, and/or case law which you believe requires LES to include additional information to that contained in the LES ER regarding the social and economic impacts and costs of operating the NEF. Explain why, in each instance, the regulation, guidance and/or case law is not satisfied.

INTERROGATORY NO. 34 (Natural Gas Related Accidents)

State all facts that support your contention that the LES Safety Analysis Report (SAR) does not contain a complete or adequate assessment of accidents involving natural gas transmission facilities. Specify each and every aspect of the SAR that you claim is incomplete or inadequate in this regard, and state all bases for each such claim.

INTERROGATORY NO. 35 (Natural Gas Related Accidents)

State all facts which you claim support your contention that the LES Integrated Safety Analysis (ISA) should be based on module-specific data. Identify all such data, and explain how such data would support the ISA.

INTERROGATORY NO. 36 (Natural Gas Related Accidents)

State the specific NRC regulation or guidance that you believe requires LES to include information -- in addition to that contained in the application, as amended -- regarding the risk of natural gas related accidents. Explain why, in each instance, the regulation or guidance is not satisfied.

REQUESTS FOR ADMISSION

REQUEST FOR ADMISSION NO. 1:

Do you admit that if the DUF6 is converted to U3O8 only by upgrading the HF product to anhydrous HF, no calcium fluoride (CaF2) would be produced?

REQUEST FOR ADMISSION NO. 2:

Do you admit that if the DUF6 is converted to U3O8 only by upgrading the HF product to anhydrous HF, no magnesium fluoride (MgF2) would be produced?

REQUEST FOR ADMISSION NO. 3:

With respect to basis (f) of your Ground and Surface Water Impacts Contention, do you admit that if there is no detectable groundwater in the alluvium beneath the LES site, its absence would mean there has been no transport of water from the surface of the LES site to the top of the Chinle Formation in the last 100 years ? in the last 1000 years ?

REQUEST FOR ADMISSION NO. 4:

Do you admit that DOE has analyzed the environmental impacts of construction and operation of a plant designed to convert DUF<sub>6</sub> to U<sub>3</sub>O<sub>8</sub> in the following documents: "Final Programmatic Environmental Impact Statement for Alternative Strategies for the Long-Term Management and Use of Depleted Uranium Hexafluoride" (DOE/EIS-0269); "Final Environmental Impact Statement for Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the Paducah, Kentucky Site" (DOE/EIS-0359); and "Final Environmental Impact Statement for Construction and Operation of a Depleted Uranium Hexafluoride Conversion Facility at the Portsmouth, Ohio, Site" (DOE/EIS-0360).  
?

REQUEST FOR ADMISSION NO. 5:

Do you admit that in Section 2.2.5 of DOE/EIS-0359, and in Section 2.2.7 of DOE/EIS-0360, DOE addresses the option of expanding DUF6 conversion facility operations ?

REQUEST FOR ADMISSION NO. 6:

Do you admit that the environmental impacts of a private conversion facility constructed and operated to convert the DUF6 at LES would be bounded by the DOE environmental documents listed in Request 4 above?

REQUEST FOR ADMISSION NO. 7:

Do you admit that a private conversion facility constructed and built to accept DUF6 from LES would use the same conversion process proposed to be used in the DOE facility; i.e., a continuous dry-conversion process based on the commercial process used by Framatome Advanced Nuclear Power, Inc. fuel fabrication facility in Richland, Washington?

REQUEST FOR ADMISSION NO. 8:

Do you admit that in 2002, out of the 11.5 million SWU's purchased by U.S. nuclear reactors, only 1.7 million of these SWU's were provided by uranium enrichment plants located in the United States?

REQUEST FOR ADMISSION NO. 9

Do you admit that, if the Commission determines DUF6 to be low level radioactive waste, DOE disposal would be a plausible strategy?

Respectfully submitted,

*/RA/*

*/RA/*

*/RA John T. Hull for Lisa B. Clark/*

John T. Hull  
Angela B. Coggins  
Lisa B. Clark  
Counsel for NRC Staff

Dated at Rockville, Maryland  
this 9<sup>th</sup> day of September, 2004

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
LOUISIANA ENERGY SERVICES, L.P.	)	Docket No. 70-3103
	)	
(National Enrichment Facility)	)	ASLBP No. 04-826-01-ML
	)	

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S FIRST OF INTERROGATORIES AND REQUESTS FOR ADMISSION TO NIRS/PC" in the above-captioned proceedings have been served on the following by deposit in the United States mail; through deposit in the Nuclear Regulatory Commission's internal system as indicated by an asterisk (\*), and by electronic mail as indicated by a double asterisk (\*\*) on this 9th day of September, 2004.

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