

RAS 10/56

July 8, 2005

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

**DOCKETED
USNRC**

July 8, 2005 (2:50pm)

**OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF**

In the Matter of

Docket No. 70-3103

Louisiana Energy Services, L.P.

ASLBP No. 04-826-01-ML

**SECOND SUPPLEMENTAL INTERROGATORIES
AND DOCUMENT REQUEST
ON BEHALF OF
INTERVENORS NUCLEAR INFORMATION AND RESOURCE SERVICE
AND PUBLIC CITIZEN
TO APPLICANT LOUISIANA ENERGY SERVICES, L.P.**

Intervenors, Nuclear Information and Resource Service and Public Citizen ("NIRS/PC"), hereby request that Applicant Louisiana Energy Services, L.P. ("LES") respond to the following interrogatories and document requests separately and fully in writing under oath pursuant to the schedule contained in the Joint Report dated May 23, 2005.

1. Instructions: Each of the following requests is a continuing one pursuant to 10 CFR Sections 2.706(b) and 2.707, and NIRS/PC hereby demand that, in the event that at any later date LES obtains or discovers any additional information which is responsive to these interrogatories and this request for production of documents, LES shall supplement its responses to this request promptly and sufficiently in advance of hearing. Such supplementation shall include, but not be limited to:
 - a. the identity and location of persons having knowledge of discoverable matters;

Template = SECY-035

SECY-02

- b. the identity of each person expected to be called as an expert witness at any hearing, the subject matter on which he is expected to testify, and the substance of his testimony; and
 - c. any new information that makes any response hereto substantially incorrect.
- 2. If LES objects to or refuses to answer any interrogatory under a claim of privilege, immunity, or for any other reason, please indicate the basis for asserting the objection, privilege, immunity, or other protection, and describe the factual basis for asserting the objection, privilege, immunity, or other protection in sufficient detail to permit the administrative judges in this matter to ascertain the validity of such assertion.
- 3. If LES withholds any document covered by this request under a claim of privilege, immunity, or other protection, please furnish a list identifying each document for which such privilege, immunity, or other protection is asserted, together with the following information as to each document: date, author, recipient, recipients of copies, and the job title of any such persons, the subject matter of the document, the basis for asserting the privilege, immunity, or other protection, and the identity of the person on whose behalf the privilege, immunity, or other protection is asserted.
- 4. Definitions: Each of the following definitions, unless otherwise indicated, applies to and shall be a part of each interrogatory and request for production which follows:
 - a. "LES," "you," and "your" refer to Louisiana Energy Services, L.P. and, in those instances where information necessary to respond to any interrogatory is not within the body of knowledge possessed by LES or where documentation necessary to respond to a request for production of documents is not in LES's

possession, custody, or control, but is within the body of knowledge possessed by LES's constituent partners or within their custody or control, then "LES," "you," and "your" also refer to all of LES's partners, employees, agents, contractors, or other representatives.

b. "Document" means the original and any nonidentical copies of all written, printed, typed, recorded, graphic, photographic, or electronic media however produced or reproduced and wherever located, over which you have possession, custody or control or over which you have the right to assert possession, custody or control. The term "document" includes, but is not limited to, records, correspondence, memoranda, reports, telegrams, telexes, wire communications, diaries, notes, minutes, instructions, demands, data, schedules, notices, recordings, analyses, sketches, manuals, brochures, calendars, ledgers, invoices, charts, drafts, computer tapes, computer discs, microfilm, microfiche, blueprints, drawings, contracts, agreements, files, and any other written or graphic matter.

c. "Identify" shall mean:

- i. In connection with a person, state the name, last known home and business address, last known home and business telephone number (including mobile phones), and last known place of employment and job title;
- ii. In connection with a document, give a description sufficient to identify uniquely the document, including the author, date, title, caption, document number, the name of the signatory and

addressee and any recipients of copies, the file source, and the
general subject matter;

- d. "NEF" shall mean the proposed National Enrichment Facility, which is the
subject of this proceeding.
- e. "Person" includes any individual, association, corporation, partnership, joint
venture, or any other business, legal, or governmental entity.
- f. Discovery sought herein encompasses any material contained in the personal
or private files of LES employees, representatives, agents, or officers.

Interrogatories:

1. With respect to NIRS/PC Contention EC-3/TC-1, admitted to this proceeding, including
the text of the contention and bases thereof, please (indicating as appropriate where such
information has previously been provided):
 - a. Identify and state the area of professional expertise of each person whom LES
expects to call as a witness, including any expert witness at the hearing.
 - b. State the educational and scientific expertise of each witness.
 - c. State the subject matter on which each of the witnesses is expected to testify.
 - d. State the substance of the facts and opinions to which each witness is expected to
testify and a summary of the grounds for each opinion, and
 - e. Identify the documents and all pertinent pages or parts thereof upon which each
witness will rely or will otherwise use for his testimony.
2. With respect to NIRS/PC Contention EC-5/TC-2, admitted to this proceeding, including
the text of the contention and bases thereof, please (indicating as appropriate where such
information has previously been provided):

- a. Identify and state the area of professional expertise of each person whom LES expects to call as a witness, including any expert witness at the hearing.
 - b. State the educational and scientific expertise of each witness.
 - c. State the subject matter on which each of the witnesses is expected to testify.
 - d. State the substance of the facts and opinions to which each witness is expected to testify and a summary of the grounds for each opinion, and
 - e. Identify the documents and all pertinent pages or parts thereof upon which each witness will rely or will otherwise use for his testimony.
3. With respect to NIRS/PC Contention EC-6/TC-3, admitted to this proceeding, including the text of the contention and bases thereof, please (indicating as appropriate where such information has previously been provided):
 - a. Identify and state the area of professional expertise of each person whom LES expects to call as a witness, including any expert witness at the hearing.
 - b. State the educational and scientific expertise of each witness.
 - c. State the subject matter on which each of the witnesses is expected to testify.
 - d. State the substance of the facts and opinions to which each witness is expected to testify and a summary of the grounds for each opinion, and
 - e. Identify the documents and all pertinent pages or parts thereof upon which each witness will rely or will otherwise use for his testimony.
4. With respect to amendments to NIRS/PC Contention EC-3/TC-1, subpart (D), proposed in NIRS/PC's Motion for Admission of Supplemental and Additional Late-Filed Contentions, dated July 5, 2005, including the text of the contention and bases thereof, please:

- a. Identify and state the area of professional expertise of each person whom LES expects to call as a witness, including any expert witness at the hearing.
 - b. State the educational and scientific expertise of each witness.
 - c. State the subject matter on which each of the witnesses is expected to testify.
 - d. State the substance of the facts and opinions to which each witness is expected to testify and a summary of the grounds for each opinion, and
 - e. Identify the documents and all pertinent pages or parts thereof upon which each witness will rely or will otherwise use for his testimony.
5. With respect to amendments to NIRS/PC Contention EC-3/TC-1, subpart (E), proposed in NIRS/PC's Motion for Admission of Supplemental and Additional Late-Filed Contentions, dated July 5, 2005, including the text of the contention and bases thereof, please:
 - a. Identify and state the area of professional expertise of each person whom LES expects to call as a witness, including any expert witness at the hearing.
 - b. State the educational and scientific expertise of each witness.
 - c. State the subject matter on which each of the witnesses is expected to testify.
 - d. State the substance of the facts and opinions to which each witness is expected to testify and a summary of the grounds for each opinion, and
 - e. Identify the documents and all pertinent pages or parts thereof upon which each witness will rely or will otherwise use for his testimony.
6. With respect to amendments to NIRS/PC Contention EC-5/TC-2, subpart (C), proposed in NIRS/PC's Motion for Admission of Supplemental and Additional Late-Filed

Contentions, dated July 5, 2005, including the text of the contention and bases thereof, please:

- a. Identify and state the area of professional expertise of each person whom LES expects to call as a witness, including any expert witness at the hearing.
 - b. State the educational and scientific expertise of each witness.
 - c. State the subject matter on which each of the witnesses is expected to testify.
 - d. State the substance of the facts and opinions to which each witness is expected to testify and a summary of the grounds for each opinion, and
 - e. Identify the documents and all pertinent pages or parts thereof upon which each witness will rely or will otherwise use for his testimony.
7. With respect to amendments to NIRS/PC Contention EC-5/TC-2, subpart (D), proposed in NIRS/PC's Motion for Admission of Supplemental and Additional Late-Filed Contentions, dated July 5, 2005, including the text of the contention and bases thereof, please:

- a. Identify and state the area of professional expertise of each person whom LES expects to call as a witness, including any expert witness at the hearing.
- b. State the educational and scientific expertise of each witness.
- c. State the subject matter on which each of the witnesses is expected to testify.
- d. State the substance of the facts and opinions to which each witness is expected to testify and a summary of the grounds for each opinion, and
- e. Identify the documents and all pertinent pages or parts thereof upon which each witness will rely or will otherwise use for his testimony.

8. With respect to amendments to NIRS/PC Contention EC-5/TC-2, subpart (E), proposed in NIRS/PC's Motion for Admission of Supplemental and Additional Late-Filed Contentions, dated July 5, 2005, including the text of the contention and bases thereof, please:

- a. Identify and state the area of professional expertise of each person whom LES expects to call as a witness, including any expert witness at the hearing.
- b. State the educational and scientific expertise of each witness.
- c. State the subject matter on which each of the witnesses is expected to testify.
- d. State the substance of the facts and opinions to which each witness is expected to testify and a summary of the grounds for each opinion, and
- e. Identify the documents and all pertinent pages or parts thereof upon which each witness will rely or will otherwise use for his testimony.

9. With respect to amendments to NIRS/PC Contention EC-9, proposed in NIRS/PC's Motion for Admission of Supplemental and Additional Late-Filed Contentions, dated July 5, 2005, including the text of the contention and bases thereof, please:

- a. Identify and state the area of professional expertise of each person whom LES expects to call as a witness, including any expert witness at the hearing.
- b. State the educational and scientific expertise of each witness.
- c. State the subject matter on which each of the witnesses is expected to testify.
- d. State the substance of the facts and opinions to which each witness is expected to testify and a summary of the grounds for each opinion, and
- e. Identify the documents and all pertinent pages or parts thereof upon which each witness will rely or will otherwise use for his testimony.

10. With regard to the conversion (or "deconversion") of depleted uranium ("DU") from the National Enrichment Facility ("NEF") from DUF_6 to another form for purposes of disposal, please state the substance of the strategy of LES as to conversion of DU waste, including:

- a. The specific form to which DUF_6 is planned to be converted,
- b. The nature of the process to be employed, including an identification of any byproducts of the process (other than DU) and the way in which such byproducts shall be managed or disposed of,
- c. The planned location or locations for such conversion and disposal,
- d. The quantity of DU to be converted at each such site and the rate of conversion,
- e. The owner and operator of each conversion and disposal site,
- f. The nature of the license or licenses applicable to such conversion or disposal, and
- g. Please identify any documents concerning or reflecting the development of LES's strategy for conversion or disposal, including but not limited to documents considering the environmental impacts of such strategy or alternative strategies.

11. With regard to the conversion (or "deconversion") of DU from the NEF from DUF_6 to another form for purposes of disposal (including costs of disposal of any waste other than DU waste), please state the cost of LES's strategy as to conversion of DU waste (so far as possible stated in 2004 dollars per kg of uranium), including:

- a. The capital costs of each capital investment and the manner in which such costs were derived and may be allocated in calculating unit costs,

- b. The operating cost and the manner in which such costs were derived and may be allocated in calculating unit costs,
 - c. Any other cost elements and the manner in which such costs were derived and may be allocated in calculating unit costs,
 - d. Please identify any documents concerning or reflecting such costs, and
 - e. Please identify each person undertaking to calculate such costs.
12. With regard to the disposal of DU from the NEF, please state the substance of the strategy of LES as to disposal of DU, including:
- a. The planned location or locations for such disposal,
 - b. The quantity of DU to be disposed at each such site and the rate of disposal,
 - c. The nature of the disposal system, including the waste concentration, waste treatment, grouting or cementation, other materials emplaced with the waste, depth of burial, dimensions of disposal zone, nature of any engineered barriers, cover structure design, markers or monuments, and nature of the surrounding geology,
 - d. The owner and operator of the disposal site,
 - e. The nature of the license or licenses applicable to such disposal, and
 - f. Please identify any documents concerning or reflecting the development of LES's strategy for disposal, including but not limited to documents considering the environmental impacts of such strategy or alternative strategies.
13. With regard to the disposal of DU from the NEF, please state the cost of LES's strategy as to such disposal (so far as possible stated in 2004 dollars per kg of uranium), including:

- a. The capital costs of each capital investment and the manner in which such costs were derived and may be allocated in calculating unit costs,
- b. The operating cost and the manner in which such costs were derived and may be allocated in calculating unit costs,
- c. Any other cost elements and the manner in which such costs were derived and may be allocated in calculating unit costs,
- d. Please identify each person undertaking to calculate such costs, and
- e. Please identify any documents concerning or reflecting such costs.

14. With regard to the data reflecting analysis of disposal of DU contained in the Final Environmental Impact Statement ("FEIS"), Table 4-19, please state:

- a. The identity of each document concerning or reflecting such analysis,
- b. Each parameter used in modeling that gave rise to such results,
- c. The value (or range and distribution of values) assigned to each parameter in the modeling reported,
- d. The time spans used in analysis,
- e. The quantities of radioactivity measured as a release or dose, as applicable,
- f. The identity of each model used in such analyses, including the author and publication date, and
- g. Identify each individual responsible for or participating in such analyses.

15. Please identify each analysis, carried out in fulfillment of the requirements of the National Environmental Policy Act, of the environmental impacts of disposal of DU waste from the National Enrichment Facility, either in the manner proposed for disposal as LES's strategy or as an appropriate alternative. As to each such analysis, state:

- a. The planned location or locations for such disposal,
- b. The quantity of DU to be disposed at each such site,
- c. The nature of the disposal system, including the waste concentration, waste treatment, grouting or cementation, other materials emplaced with the waste, depth of burial, dimensions of disposal zone, nature of any engineered barriers, cover structure design, markers or monuments, and nature of the surrounding geology,
- d. The owner and operator of the disposal site,
- e. The nature of the license or licenses applicable to such disposal, and
- f. Please identify any documents concerning or reflecting such disposal.

16. As to any site that you contend has been the subject of analysis in fulfillment of the requirements of the National Environmental Policy Act as a disposal site for DU from the NEF, please state whether there has been any modeling of the performance of such disposal site, and if so please state:

- a. The identity of each document concerning or reflecting such analysis,
- b. Each parameter used in modeling the performance of the site,
- c. The value (or range and distribution of values) assigned to each parameter in the modeling reported,
- d. The time spans used in analysis,
- e. The quantities of radioactivity measured as a release or dose, as applicable,
- f. The identity of each model used in such analyses, including the author and publication date, and
- g. Identify each individual responsible for or participating in such analyses.

17. With regard to the possible disposal of DU from the NEF at the site managed by Waste Control Specialists ("WCS"), please state what investigations you have conducted concerning the capabilities, training, and experience of management or consultants of WCS, describe the results of such investigation, and identify any documents concerning or reflecting such analyses.
18. With regard to the application now pending on behalf of WCS with the Texas Commission on Environmental Quality ("TCEQ") for one or more licenses to dispose of low-level radioactive waste (the "WCS Application"), please state whether LES has reviewed some or all of such application, identify any person who has conducted such review on behalf of LES, state the results of such review, and identify any document concerning or reflecting such review.
19. With regard to the WCS Application, please state whether LES has reviewed any data in the WCS Application concerning the proposed waste inventory, including, for example, the proposed radionuclide inventory for the Federal Waste Facility ("FWF"). If LES has done so, please state the identity of the person carrying out such review on behalf of LES, state the results of such review, and identify any documents concerning or reflecting such review.
20. With regard to the possible disposal of DU from the NEF at the site managed by Envirocare, Inc. ("Envirocare"), please state what investigations you have conducted concerning the application of any terms or conditions of any license or permit held by Envirocare, or of any Utah state law or regulation, upon the feasibility of disposal of DU at a site managed by Envirocare, describe the results of such investigation, and identify any documents concerning or reflecting such analyses.

21. With regard to the possible disposal of some or all of the DU expected to be generated by the NEF, please state whether you have carried out any generic or site-specific calculations of future doses or releases of radioactivity from such disposal, including but not limited to disposal at a site controlled by WCS or Envirocare, and if so,

- a. Identify the site under analysis and parameters and the values assigned in such analysis,
- b. State the time span of the analysis,
- c. Identify the models used in analysis,
- d. State the results of the analysis, including the quantities of radioactivity released to the biosphere or received as a dose, as the case may be,
- e. Identify each person responsible for or participating in such analysis, and
- f. Identify any documents concerning or reflecting such analysis.

22. With regard to possible disposal of DU from the NEF at the WCS site or the Envirocare site, please state whether any person acting on behalf of LES has analyzed prospective erosion of the cover or surface at such site, including but not limited to the action of water, wind, animals, humans, or equipment, and the impacts of any such processes upon soil, rock, vegetation, or engineered components, and if so:

- a. Identify the person undertaking such analysis,
- b. State the time span of the analysis,
- c. Identify the models used in analysis,
- d. State the substance of the analysis and its conclusions, and
- e. Identify any documents concerning or reflecting such analysis.

23. With regard to possible disposal of DU from the NEF at the WCS site or the Envirocare site, please state whether any person acting on behalf of LES has analyzed prospective performance of any engineered barriers, vault, disposal trench, or cover system at such site, and if so:

- a. Identify the person undertaking such analysis,
- b. State the time span of the analysis,
- c. Identify the models used in analysis,
- d. State the substance of the analysis and its conclusions, and
- e. Identify any documents concerning or reflecting such analysis.

24. With regard to possible disposal of DU from the NEF at the WCS site or the Envirocare site, please state whether any person acting on behalf of LES has analyzed prospective infiltration of surface or ground water into the disposal zone at such site, and if so:

- a. Identify the person undertaking such analysis,
- b. State the time span of the analysis,
- c. Identify the models used in analysis,
- d. State the substance of the analysis and its conclusions, and
- e. Identify any documents concerning or reflecting such analysis.

25. With regard to possible disposal of DU from the NEF at the WCS site or the Envirocare site, please state whether any person acting on behalf of LES has analyzed prospective flow or seepage of water from the disposal zone at such site, including but not limited to the conductivity or transmissivity of rock bodies in the subsurface, and if so:

- a. Identify the person undertaking such analysis,
- b. State the time span of the analysis,

- c. Identify the models used in analysis,
- d. State the substance of the analysis and its conclusions, and
- e. Identify any documents concerning or reflecting such analysis.

26. With regard to possible disposal of DU from the NEF at the WCS site or the Envirocare site, please state whether any person acting on behalf of LES has analyzed possible human intrusion through or into the disposal zone at such site, including but not limited to the measurement of releases or doses of radionuclides in the course of drilling for natural resources, drilling for water, drilling injection wells, mining, solution mining, or excavation for construction purposes, and if so:

- a. Identify the person undertaking such analysis,
- b. State the time span of the analysis,
- c. Identify the models used in analysis,
- d. State the substance of the analysis and its conclusions, and
- e. Identify any documents concerning or reflecting such analysis.

27. With regard to possible disposal of DU from the NEF at the WCS site or the Envirocare site, please state whether any person acting on behalf of LES has analyzed possible future seismicity at such site, including but not limited to artificially induced seismicity, and if so:

- a. Identify the person undertaking such analysis,
- b. State the time span of the analysis,
- c. Identify the models used in analysis,
- d. State the substance of the analysis and its conclusions, and
- e. Identify any documents concerning or reflecting such analysis.

28. With regard to possible disposal of DU from the NEF at the WCS site or the Envirocare site, please state whether any person acting on behalf of LES has analyzed the solubility of waste components or radionuclides at such site, and if so:

- a. Identify the person undertaking such analysis,
- b. State the time span of the analysis,
- c. Identify the models used in analysis,
- d. State the substance of the analysis and its conclusions, and
- e. Identify any documents concerning or reflecting such analysis.

29. With regard to possible disposal of DU from the NEF at the WCS site or the Envirocare site, please state whether any person acting on behalf of LES has analyzed the transport of radionuclides in subsurface water at such site, including but not limited to studies of partition coefficients (K_d s) and if so:

- a. Identify the person undertaking such analysis,
- b. State the time span of the analysis,
- c. Identify the models used in analysis,
- d. State the substance of the analysis and its conclusions, and
- e. Identify any documents concerning or reflecting such analysis.

Document request

Please provide all documents identified or described in response to any of the foregoing interrogatories.

Respectfully submitted,

Lindsay A. Lovejoy, Jr.

Lindsay A. Lovejoy, Jr.

DW

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July 8, 2005

CERTIFICATE OF SERVICE

Pursuant to 10 CFR § 2.305 the undersigned attorney of record certifies that on July 8, 2005, the foregoing Second Supplemental Interrogatories and Document Request on Behalf of Intervenors Nuclear Information and Resource Service and Public Citizen to Applicant Louisiana Energy Services, L.P. was served by electronic mail and by first class mail upon the following:

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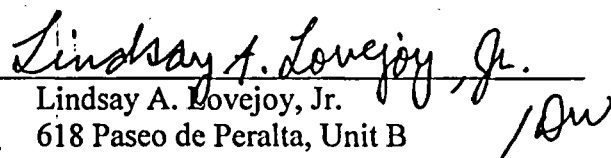
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