NIRS/PC Prefiled Exhibit 250
Docketed 09/23/2005

NATIONAL ENRICHMENT FACILITY

10 CFR 2.390
10 CFR 30.6
10 CFR 40.5
10 CFR 70.5

February 11, 2005

NEF#05-004

ATTN: Document Control Desk
Director
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Louisiana Energy Services, L. P.
National Enrichment Facility
NRC Docket No. 70-3103

Subject: Response to NRC Request for Additional Information Related to Preparation of the Final Environmental Impact Statement for the National Enrichment Facility

References:

1. Letter NEF#03-003 dated December 12, 2003, from E. J. Ferland (Louisiana Energy Services, L. P.) to Directors, Office of Nuclear Material Safety and Safeguards and the Division of Facilities and Security (NRC) regarding "Applications for a Material License Under 10 CFR 70, Domestic licensing of special nuclear material, 10 CFR 40, Domestic licensing of source material, and 10 CFR 30, Rules of general applicability to domestic licensing of byproduct material, and for a Facility Clearance Under 10 CFR 95, Facility security clearance and safeguarding of national security information and restricted data"

2. Letter NEF#04-002 dated February 27, 2004, from R. M. Krich (Louisiana Energy Services, L. P.) to Director, Office of Nuclear Material Safety and Safeguards (NRC) regarding "Revision 1 to Applications for a Material License Under 10 CFR 70, "Domestic licensing of special nuclear material," 10 CFR 40, "Domestic licensing of source material," and 10 CFR 30, "Rules of general applicability to domestic licensing of byproduct material"

3. Letter NEF#04-029 dated July 30, 2004, from R. M. Krich (Louisiana Energy Services, L. P.) to Director, Office of Nuclear Material Safety and Safeguards (NRC) regarding "Revision to Applications for a Material License Under 10 CFR 70, "Domestic licensing of special nuclear material," 10 CFR 40, "Domestic licensing of source material," and 10 CFR 30, "Rules of general applicability to domestic licensing of byproduct material"

EXHIBIT 18
PENGAD 800-631-6989

4. Letter NEF#04-037 dated September 30, 2004, from R. M. Krich (Louisiana Energy Services, L. P.) to Director, Office of Nuclear Material Safety and Safeguards (NRC) regarding "Revision to Applications for a Material License Under 10 CFR 70, "Domestic licensing of special nuclear material," 10 CFR 40, "Domestic licensing of source material," and 10 CFR 30, "Rules of general applicability to domestic licensing of byproduct material"

5. Letter dated January 28, 2005, from M. Wong (NRC) to R. Krich (Louisiana Energy Services) regarding "Request for Additional Information Related to the Preparation of a Final Environmental Impact Statement for the Louisiana Energy Services Proposed National Enrichment Facility"

By letter dated December 12, 2003 (Reference 1), E. J. Ferland of Louisiana Energy Services (LES), L. P., submitted to the NRC applications for the licenses necessary to authorize construction and operation of a gas centrifuge uranium enrichment facility. Revision 1 to these applications was submitted to the NRC by letter dated February 27, 2004 (Reference 2). Subsequent revisions (i.e., revision 2 and revision 3) to these applications were submitted to the NRC by letters dated July 30, 2004 (Reference 3) and September 30, 2004 (Reference 4), respectively. By letter dated January 28, 2005 (Reference 5), the NRC requested that additional information and clarifications, needed to support preparation of the final environmental impact statement for the National Enrichment Facility (NEF), be provided by no later than February 11, 2005.

The Reference 5 letter includes the NRC Request for Additional Information (RAI) related to the preparation of the NEF final environmental impact statement. This letter transmits the LES responses to these requests. One of these responses contains information that LES considers to proprietary in accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding," paragraph (d)(1). Accordingly, we request that the response that contains proprietary information be withheld from public disclosure.

Enclosure 1 provides the proprietary version of the LES responses to the RAI. The proprietary information is located in the response to RAI 4-1 A. Enclosure 2 provides the non-proprietary version of the LES responses to the RAI. In the proprietary version, i.e., Enclosure 1, the page that contains proprietary information includes the marking "Proprietary Information" consistent with 10 CFR 2.390 (d)(1) and the information that is proprietary is contained in brackets. In the non-proprietary version, i.e., Enclosure 2, the proprietary information is deleted and only the brackets remain (the information that was contained within the brackets in the proprietary version has been deleted).

If you have any questions or need additional information, please contact me at 630-657-2813.

Respectfully,

Daniel G. Green for

R. M. Krich
Vice President – Licensing, Safety, and Nuclear Engineering

Enclosures:
1. LES Responses to January 28, 2005, Request for Additional Information (Proprietary Version)
2. LES Responses to January 28, 2005, Request for Additional Information (Non-Proprietary Version)

cc: T.C. Johnson, NRC Project Manager (w/o Enclosures)
M.C. Wong, NRC Environmental Project Manager

# ENCLOSURE 2

Louisiana Energy Services
Response to January 28, 2005
Request for Additional Information

(Non-Proprietary Version)

1-1 Applicable Regulatory Requirements:

B. Indicate whether permits would be required from the New Mexico Office of the State Engineer for installation of monitoring wells. If so, identify the associated regulations and provide the permitting status.

**LES Response:**

B. The relevant information provided by the New Mexico Office of the State Engineer, including draft New Mexico regulation 19.27.2 NMAC, has been reviewed. LES will consult with the Office of the State Engineer prior to installation of future site ground water monitoring wells and obtain any required permits.

1-1 Applicable Regulatory Requirements:

C. State whether construction permits for satisfying the requirements of 20.2.72 New Mexico Administrative Code (NMAC) are required and, if so, discuss the status of the permit process.

**LES Response:**

C. By letter dated May 27, 2004, the New Mexico Air Quality Board (AQB) notified LES of its determination that an air quality permit under 20.2.72 NMAC is not required. The determination was based on information provided by LES in its Notice of Intent application to the AQB dated April 20, 2004.

1-1 Applicable Regulatory Requirements:

D. Indicate whether any actions under 20.2.73 NMAC (Notice of Intent and Emission Inventory Requirements) are required and, if so, discuss the status of any such actions.

**LES Response:**

D. By letter dated May 27, 2004, the New Mexico Air Quality Board (AQB) notified LES that the NEF is subject to 20.2.73 NMAC, and that the application submitted by LES on April 20, 2004, will serve as the Notice of Intent in accordance with 20.2.73 NMAC. The AQB also stated that the two emergency diesel generators and surface coating activities are exempt, provided all requirements specified in 20.2.72.202.B (3) and 20.2.202.B (6) NMAC, respectively, are met.

## SECTION 2 – ALTERNATIVES

2-1 Facility Description:

A. Clarify the disposition of any structures remaining on the proposed NEF site after completion of decontamination and decommissioning.

> LES comment 57 (see LES letter #04-045, dated November 5, 2004) states that LES does not currently plan to return structures and components to Lea County at the end of facility operation. However, the ER indicates that the retention/detention basins would remain at the end of decontamination and decommissioning and could be turned over to Lea County.

**LES Response:**

A. While the structures and components, including the retention/detention basins, could be turned over to Lea County since they will be decontaminated to acceptable levels for unrestricted use, LES does not currently have plans to turn structures and components, including the retention/detention basins, over to the State of New Mexico or Lea County after decommissioning is complete. In addition, as indicated in the LES Ground Water Discharge Permit Application (previously provided to the NRC in letter NEF#04-026 dated June 29, 2004), the closure plan for the three basins at the end of facility operation is as follows.

<u>Treated Effluent Evaporative Basin</u>
The Treated Effluent Evaporative Basin is expected to contain residue from the effluent treatment systems. The sediment and soil over the top of the uppermost liner and the liner itself will be disposed of, if required, at a low-level waste facility. The leak detection components will also be removed and disposed of appropriately. Excavations and berms will be leveled to restore the land to a natural contour.

<u>Uranium Byproduct Cylinder (UBC) Storage Pad Storm Water Retention Basin</u>
The UBC Storage Pad Storm Water Retention Basin is not expected to contain any contaminants from the plant. The sediment and soil over the top of the liner and the liner itself will be tested and disposed of, as appropriate. Any components found containing contamination from the plant will be handled and disposed of in accordance with pertinent regulations. Excavations and berms will be leveled to restore the land to a natural contour.

<u>Site Storm Water Detention Basin</u>
The Site Storm Water Detention Basin sediment will be sampled and tested and removed for proper disposal as needed. Excavations and berms will be leveled to restore the land to a natural contour.

## SECTION 3 – AFFECTED ENVIRONMENT

3-1 Ground Water Quality:

A. Revise ER Table 3.4-3, page 1 of 3 or explain why the sum of the chloride and sulfate concentrations measured in the "NEF Sample" exceed the total dissolved solids (TDS) concentration in that same sample.

The sum of the chloride and sulfate concentrations exceed the TDS concentration where the sum should be equal to or less than the TDS concentration.

**LES Response:**

A. The value reported for Total Dissolved Solids (TDS) in the NEF ER Table 3.4-3 from the initial sampling event of an NEF site well, which occurred on October 14, 2003, was 2500 mg/L. As shown in the table below, the reported TDS value is less than the sum of chloride and sulfate ions in that analysis, and thus appears to be inaccurate. The likelihood of inaccuracy was confirmed by LES through discussions with the analytical laboratory.

| Sampling Date | TDS (mg/L) | Sulfate (mg/L) | Chloride (mg/L) | Sulfate + Chloride (mg/L) |
|---|---|---|---|---|
| October 14, 2003 | 2500 | 2200 | 1600 | 3800 |
| November 11, 2003 | 6000 | 2400 | 1800 | 4200 |
| March 29, 2004 | 6300 | 2400 | 1700 | 4100 |
| August 17, 2004 | 6400 | 2500 | 1800 | 4300 |

The three subsequent sampling events have produced TDS values from 6000 mg/L to 6400 mg/L. These subsequent TDS values are consistent with each other and exceed the sum of the associated sulfate and chloride values. The TDS values reported for these three most recent analyses appear to better represent the actual level of TDS in the sampled well. As a result, no additional sampling is planned at this time by LES.

ER Table 3.4-3 will be revised to mark the TDS value, from the October 14, 2003, sampling event, as likely inaccurate.

PROPRIETARY INFORMATION

## SECTION 4 – ENVIRONMENTAL IMPACTS

4-1 Land Use:

A. Provide a description and necessary figures showing the routing of new natural gas lines.

LES comment 38 (see LES letter NEF#04-045 dated November 5, 2004) states that the installation of the natural gas supply piping should also be addressed. However, only the following statement can be found in the ER on page 4.1-2 of Rev 3: "The natural gas line feeding the site will connect to an existing, nearby line. This will minimize impacts of short-term disturbances related to the placement of the tie-in line." Further details are necessary to properly address the comment.

**LES Response:**

[ Information withheld in accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding," paragraph (d)(1). ]

4-2 Water Resources:

A. Verify (or update) the estimated water usage during construction.

This information is needed to update page 4-11, line 25 of the DEIS.

**LES Response:**

A. The value for estimated annual water usage during construction reflected in the NEF Draft Environmental Impact Statement, i.e., 7570 cubic meters (2 million gallons), is applicable to construction of NEF since the value is consistent with annual water usage during construction at similar sized sites with arid conditions.

4-3 Ecology:

A. Provide updated information and details concerning the installation of netting or other suitable material for the TEEB. Also clarify whether netting (other suitable material) or other mitigation actions for managing wildlife would be used in the other two basins.

LES comments 47 and 48 (see LES letter NEF#04-045 dated November 5, 2004) request a change in wording. Other public comments have also requested further actions to minimize the impacts to wildlife from all onsite basins. To properly address these comments, the latest designs for protective barriers need to be provided.

**LES Response:**

A. No additional information is available beyond that already provided for the use of netting or other suitable material for the Treated Effluent Evaporative Basin (TEEB). The other two basins are not anticipated to pose a risk for birds and will not include netting or other material.

A site perimeter animal-friendly fence will be used to exclude livestock and large game animals from the site and all on-site basins. Each basin will also be enclosed by its own fencing to restrict entry by animals. The design of the fences will consider appropriate recommendations from the New Mexico Department of Game and Fish.

LES will consult with appropriate state and federal agencies including the U.S. Fish and Wildlife Service (USFWS) and the New Mexico Department of Game and Fish during detailed design of mitigating features and incorporate appropriate recommendations that will limit or prevent wildlife access to on-site basins (See ER sections 4.5.12, 4.5.13, and 5.2.5). LES will also monitor the basin waters during plant operations to ensure the risk to birds and wildlife is minimized.

4-3 Ecology:

B. Provide information on how wildlife would be handled that are able to bypass the barriers or are potentially trapped inside the barriers for the site and the basins.

The FEIS should provide comprehensive information on proposed wildlife barriers. Public comments have expressed concern that wildlife could become trapped on the land enclosed by the barriers that will be erected to exclude wildlife from the site and the basins.

**LES Response:**

B. As part of the NEF environmental monitoring program, LES will monitor basin waters and the site property during construction and plant operations for entrapped wildlife. The fence barriers are not expected to offer a preferential direction to movement for those animals able to cross the boundary. If needed, measures will be taken to release trapped wildlife. The monitoring program will assess the effectiveness of the entry barriers and release features to ensure the risk to wildlife is minimized.

LES will consult with and consider recommendations of the New Mexico Department of Game and Fish to incorporate mitigation features that will minimize the risk to trapped wildlife.

4-4 Socioeconomics:

A. Provide documentation of any partnerships or discussions with local colleges, school districts, and schools for developing a pool of employees from the surrounding area. Also provide information on the training programs for newly hired employees to provide additional technical training that could not be provided by local colleges.

Several commenters noted that the New Mexico Junior College has had discussions with LES on the college's curriculum, and that LES has provided funding of several scholarships to local students. This information needs to be documented in the FEIS.

Public comments have questioned whether the highly skilled positions could be filled by hiring in the local communities due to the need for further training on a technology with security implications.

**LES Response:**

A. Discussions and planning with leaders of the public and higher education institutions in Eunice and Hobbs have been going on during the course of 2004 and are continuing into 2005. Specifically, partnering between LES and the New Mexico Junior College (NMJC) that will lead to the development of technical and other (e.g., General Employee Training) programs at the NMJC are summarized in the attached letter from the president of the NMJC (Attachment 4-4 A.1). Also, the Eunice public school system is implementing a science curriculum as described in the attached letter from the superintendent (Attachment 4-4 A.2). A similar curriculum is being considered by the Hobbs public school superintendent. LES also sponsors scholarships for NMJC students that pay for one semester of enrollment and books if there are remaining funds.

4-4 Socioeconomics:

B. Describe the education prerequisites for the job types the proposed NEF is expected to create during construction and operation. Provide the estimated number of jobs by position that are expected to be filled both locally and from outside the area of the proposed NEF.

Several comments request detailed information describing the positions to be filled locally and the positions to be filled with LES partner employees or other employees from outside the region of influence. The FEIS discussion of socioeconomic impacts should include this information.

**LES Response:**

B. The education requirements for permanent positions at the NEF are currently under development. While selected positions will be filled by personnel from Urenco facilities in Europe during the startup phase of the NEF, all NEF positions will be open to qualified individuals, with particular emphasis on local candidates, once the startup phase is completed. As discussed in the response to Item 4-4 A above, selected training programs will be available to local residents.

4-5 Temporary Onsite Storage:

A. Provide the status of any negotiations with the State of New Mexico and any revisions from the information in the ER concerning the time of temporary storage of UBCs onsite during the operation of the proposed NEF.

The FEIS should include new details or changes to plans concerning UBC storage onsite. Several comments highlighted the applicant's public commitment to have the UBCs removed from the proposed NEF site in a timely manner outside of the State of New Mexico.

**LES Response:**

A. LES is continuing to address issues raised by the State of New Mexico. As committed to in the license application, LES's objective is to limit the time that UBCs are stored on site by aggressively pursing a privately operated deconversion facility to process the depleted uranium byproduct. To that end, LES announced on February 3, 2005, the signing of a Memorandum of Agreement with Areva Group to work together on a deconversion facility near the NEF. The press release is attached (Attachment 4-5 A.1).

4-6 Waste Management:

A. Provide an update on enacting a disposal strategy for the $DUF_6$. Include a discussion of a conversion facility, management of conversion byproducts (especially hydrofluoric acid), disposal at a licensed facility, and disposition of empty cylinders.

The status of all discussions for the waste management of $DUF_6$ and conversion byproducts needs to be presented in the FEIS. Public comments express concern about the disposition of $DUF_6$.

**LES Response:**

A. As discussed in response to Item 4-5 A, a Memorandum of Agreement between LES and Areva concerning the eventual construction of a deconversion facility to be located near the NEF, but outside the state of New Mexico, is described in the attached press release (Attachment 4-5 A.1). It is LES's intent to use such a facility to deconvert the depleted uranium byproduct to $U_3O_8$, dispose of it at a low-level radioactive waste repository, and to neutralize the deconversion byproduct of aqueous hydrogen fluoride (HF) to calcium fluoride ($CaF_2$) so that it can be disposed of in an industrial landfill. To that end, the two processes that are offered by Areva are the Cogema process which has been in use at Cogema's W Plant in Pierrelatte, France, for 20 years and the Framatome process that will be used by Uranium Disposition Services (UDS) at the plants that are to built at Paducah, KY and Portsmouth, OH. Both processes produce aqueous HF containing only trace amount uranium which can then be neutralized to $CaF_2$ and then disposed of as industrial waste. An information sheet is attached (Attachment 4-6 A.1). Accordingly, LES will not pursue a facility that employs a deconversion process that results in anhydrous HF and will revise the license application to reflect this decision in the next revision of the application. LES intends to reuse the empty UBCs to the maximum extent possible.

## SECTION 5 - MITIGATION MEASURES

5-1 Mitigation Measures Proposed by LES:

A. Provide a copy of best management practices that have been developed to date, such as the Storm Water Pollution Prevention Plan, Spill Prevention Control and Countermeasures plan, and waste minimization and recycling plans. If these plans are yet to be developed, identify the elements or scope of the plans.

Pursuant to 10 CFR 51.45(c), alternatives available for reducing or avoiding adverse environmental effects should be identified in the FEIS. Members of the public have requested more details of these mitigative measures for the protection of human health and the environment.

**LES Response:**

A. The Storm Water Pollution Prevention Plan (SWPPP), Spill Prevention Control and Countermeasure (SPCC) Plan, and waste minimization and recycling plans have yet to be developed. The SWPPP and SPCCC plans scope and elements when developed will follow regulatory guidelines. For example, the SWPPP framework is described in the US EPA Construction General Permit (CGP), Section 3, which states that the SWPPP must identify all potential sources of pollution that may reasonably be expected to affect the quality of storm water discharge from the site; describe the practices used to reduce pollutants in storm water; and assure compliance with the terms and conditions of the CGP. Contents of the SWPPP are detailed in Section 3.3 of the CGP. Similarly, the SPCC Plan will meet the requirements of 40 CFR 112, Oil Pollution Prevention. As a minimum, the SPCC Plan will contain the information outlined in ER Section 4.13.4.1.3, Prevention and Control of Oil Spills. The waste minimization and recycling plans when developed will meet the measures described in ER Section 5.2.13, Waste Management.

5-1 Mitigation Measures Proposed by LES:

B. Provide a copy of the Best Available Control Measures (BACM) or discuss how LES would minimize dust and particulate emissions from site construction and operation activities.

NMED is currently developing a Natural Events Action Plan (NEAP) for Lea County. The NEAP will require LES to implement BACMs. The FEIS needs to address how LES would implement BACMs, which would be required by the NEAP.

**LES Response:**

B. LES has contacted NMED and reviewed the current version of the Natural Events Action Plan (NEAP) for Lea County. Best Available Control Measures (BACM) for Lea County NEAP are still under development. LES will review Lea County BACMs as they become available and implement those that are applicable for the NEF facility during construction and operation to minimize dust and particulate emissions.

Current NEF mitigation methods to minimize dust and particulate emissions during construction and operation activities (See ER sections 4.1.1, 4.2.5, and 4.6.5) are as follows:

- Minimization of the construction footprint
- Use of water in the control of dust
- Use of adequate containment methods during excavation and other similar operations
- Use of covers over load beds of open-bodied trucks
- Prompt removal of earthen material on paved roads
- Prompt stabilization or covering of bare areas once earthmoving activities are completed

5-2 Mitigation Measures Proposed by Commenters:

Some commenters suggested a range of mitigation measures, as referenced below. After reviewing the referenced letters, indicate whether LES plans to incorporate any of the mitigation recommendations into its planning for the NEF. This information is needed to maintain a current discussion in the FEIS of planned mitigation.

1. Letter from Lisa Kirkpatrick, New Mexico Department of Game & Fish, dated November 1, 2004. This letter can be obtained from NRC's Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS) at ML043130370.

2. Letter from Stephen Spencer, U.S. Department of the Interior, dated November 5, 2004. This letter can be obtained from the Public Document Room or from ADAMS at ML043150201.

**LES Response:**

Tables 5-2.1 and 5-2.2 summarize mitigation recommendations detailed by the New Mexico Department of Game and Fish (NMGF) and the U.S Department of Interior (USDI) in their comments on the DEIS (References 1 and 2 above), along with the LES response to each recommendation.

Table 5-2.1 (Page 1 of 1)
Mitigation Recommendations from NMGF

| Agency (NMGF) Recommendation | Reference 1 | LES Response |
|---|---|---|
| 1. The same wildlife protection practices as planned for on-site trenching should be followed when constructing (a) the 25 miles of new water supply pipe, and (b) the 1.5 miles of relocated carbon dioxide line on-site. | Page 1, 2nd paragraph, 5th line | (a) LES will consult with the water supply utility responsible for the new water line to address as applicable NMGF guidance for the protection of wildlife during trenching operations.<br>(b) LES will direct that all trenching work on-site follow the mitigation measures discussed in the ER. |
| 2. NMGF guidelines for power lines that minimize harm to perching birds are recommended to be followed in construction of the 8 miles of new overhead power lines.. | Page 1, 2nd paragraph, 7th line | LES will consult with the electric utility responsible for the new transmission line to address as applicable the guidance from NMGF for the protection of birds in the design and construction of the power lines. |
| 3. NMGF recommends the down-shielding of security lights to minimize interference with avian navigation be used. | Page 1, 2nd paragraph, 9th line | The down-shielding of security lights will be considered where compatible with security plan requirements. |
| 4. Fencing used on-site should focus on limiting access of reptiles, amphibians, and small mammals. | Page 2, 5th paragraph, 4th line | LES will consult with NMGF and incorporate appropriate recommendations for the design of fencing to limit access of reptiles, amphibians, and small mammals. |
| 5. Fence material should have (a) limited permeability, such as silt fence or fine gauge welded or woven wire mesh, (b) bottom edge turned outward 90 degrees, and (c) buried below the ground surface (d) should not be constructed of nylon monofilament. | Page 2, 5th paragraph, 5th line | LES will consult with NMGF and incorporate appropriate recommendations for the design of fencing to protect wildlife. |
| 6. Netting should not be constructed of nylon monofilament. | Page 2, 5th paragraph, 7th line | LES will consult with NMGF and incorporate appropriate recommendations for the design of netting to protect birds. |

Table 5-2.2 (Page 1 of 2)
Mitigation Recommendations from USDI

| Agency (USDI) Recommendation | Reference 2 | LES Response |
|---|---|---|
| A. USDI is concerned with ponded wastewater in on-site basins which may pose a risk to wildlife health and the environment due to potential contaminants such as salts and brine, trace elements, nutrients, heavy metals, organic chemicals, petroleum, solvents, pesticides, or pathogenic microorganisms. They note that potential mitigating actions can include the following: | Page 2, 1st paragraph, 1st line | See the following responses to each individual recommendation: |
| 1. Storm water and Waste water management (e.g., treatment, recycling or reuse). | Page 2, 3rd paragraph, 1st line | Liquid effluent discharges from plant operations are treated and monitored prior to discharge to the TEEB to ensure that all discharge water quality requirements are meet. There is no recycling or reuse of storm water or waste water discharged to any of the on-site basins. The NEF environmental monitoring program will periodically sample and test water quality and soils from the basins to evaluate the potential buildup of trace contaminants. |
| 2. Storm water basin design that discourages wildlife visitation (i.e., more rectangular and narrow shapes rather than oval, playa-like shapes | Page 2, 3rd paragraph, 2nd line | The TEEB is designed as a rectangular basin. Due to the basin size needed to accommodate the storm water run-off (and cooling tower blowdown), it is not practical to limit the two storm water basins to narrow, rectangular shapes. |
| 3. Wildlife exclusion technologies (e.g., netting, amphibian and reptile barriers). | Page 2, 3rd paragraph, 3rd line | LES has committed to netting or other suitable material over the TEEB to discourage birds. Animal-friendly fencing around the site parameter will be used to exclude livestock and large game animals from the site. Each basin will also be enclosed by its own fencing to restrict entry by animals. LES will consult with New Mexico Department of Game and Fish on the design of fences which will best exclude wildlife, including amphibians and reptiles, from the site and basins. |
| 4. Mosquito management programs (e.g., integrated pest management, predators). | Page 2, 3rd paragraph, 4th line | LES does not anticipate the need for a formal mosquito management program, but will take appropriate actions to implement pest management controls for mosquitoes if a significant population were to develop. |
| 5. Engineering solutions to keep water moving (e.g., aerators or aerating fountains). | Page 2, 3rd paragraph, 5th line | Liquid effluent from the process system and cooling tower blowdown are discharged to two of the basins on a periodic basis for the purpose of evaporation. Basin designs do not include the use of aerators due to their expected changing depth as water is introduced and evaporated. |

Table 5-2.2 (Page 2 of 2)
Mitigation Recommendations from USDI

| Agency (USDI) Recommendation | Reference 2 | LES Response |
|---|---|---|
| B. USDI notes the need for new overhead transmission lines and support structures that are required for NEF. They indicate that new or modified electric distribution lines should be designed and constructed to prevent the electrocution of raptors by using the following guidance and techniques, as necessary: | Page 2, 4th paragraph, 12th line. | See the following responses to each individual recommendation: |
| 1. Use the guidance in the reference: "Suggested Practices for Raptor Protection on Power Lines: The State of the Art 1996", by the Avian Power Line Interaction Committee. | Page 2, 4th paragraph, 13th line. | LES will consult with the electric utility responsible for the new transmission line to address as applicable this guidance for the protection of birds in the design and construction of the power lines. |
| 2. Electric line design should include adequate separation of energized hardware or insulation of wires where sufficient separation cannot be attained. | Page 2, 4th paragraph, 14th line. | LES will consult with the electric utility responsible for the new transmission line to address as applicable the separation of energized hardware or insulation of wires where sufficient separation cannot be attained in order to minimize the potential of electrocution of raptors. |
| 3. Closely spaced transformer jumper wires, bushing covers, protective cutouts, or surge arresters can be made safe for raptors by the use of special insulating materials. | Page 2, 4th paragraph, 15th line. | LES will consult with the electric utility responsible for the new transmission line to address as applicable the use of special insulting materials for closely spaced transformer jumper wires, bushing covers, protective cutouts, or surge arresters to improve their safety to raptors. |
| 4. The use of grounded steel cross arm braces should be avoided. | Page 2, 4th paragraph, 17th line. | LES will consult with the electric utility responsible for the new transmission line to avoid the use of grounded steel cross arm braces where practical. |
| C. USDI suggests that weed monitoring and control be considered in keeping with native habitat enhancement. | Page 3, 4th paragraph, 7th line. | LES has committed in ER section 4.1.1 to the stabilization of the disturbed site soils after construction with natural, low-water maintenance landscaping in keeping with the native habitat. The need for additional non-native weed monitoring and control is not anticipated at this time. LES will take appropriate actions to implement weed controls if a significant intrusion were to develop. |

# ATTACHMENT 4-4 A.1

New Mexico Junior College Letter

# NEW MEXICO JUNIOR COLLEGE

Office of the President

February 8, 2005

R. M. Krich
Vice President-Licensing, Safety, and Nuclear Engineering Louisiana Energy Services
2600 Virginia Avenue, NW, Suite 610
Washington, DC 20037

Dear Rod:

The purpose of this letter is to summarize the interactions and planning that have transpired between Louisiana Energy Services (LES) and New Mexico Junior College (NMJC) concerning partnering on technical and non-technical training programs. By way of background, you and others from LES and Urenco have toured the training facilities at NMJC, and we have been in contact with LES on multiple occasions in regard to training. As well, Professor Olav Amundsen recently toured the Urenco enrichment facility at Almelo, and he gained additional insight to the training needs of a National Enrichment Facility.

Your recent discussions with Mary Jane Ward, Dean of Business and Technology, provided impetus for the following activities: Professor Amundsen, who leads our radiation protection training and curriculum, has prepared and sent to you a preliminary outline of a training program for radiation protection technicians; Professor David Moghaddam is preparing an outline of a welding training program based on the requirements you provided and those given in the license application; Dean Ward will pursue non-technical training courses that NMJC can provide, such as segments of the general employee training and diversity/harassment training; and we agreed to pursue the possibility of setting up a "hands-on" training facility on our campus.

I look forward to partnering with LES to establish training programs that will result in candidates that are qualified for many of the construction and permanent positions at the Nation Enrichment Facility.

Sincerely,

Steve McCleery

Steve McCleery, Ed.D.
President

5317 LOVINGTON HIGHWAY • HOBBS, NEW MEXICO 88240 • (505) 392-5018 • fax 392-2526

# ATTACHMENT 4-4 A.2

Eunice Public School System Letter

# Eunice Public Schools

TONI NOLAN TRUJILLO
SUPERINTENDENT
(505) 394-2524

P.O. BOX 129
EUNICE, NM 88231
FAX (505) 394-3006

February 7, 2005

Rod Krich, Vice President
Licensing, Safety & Nuclear Engineering
4300 Winfield Road
Warrenville, Illinois 60555

Dear Mr. Krich:

It is my pleasure to provide a written update of the educational partnerships that *have* developed between the National Enrichment Facility and the Eunice Public Schools. Even at this early stage of our collegial relationship, *your* company has positively impacted our schools.

Through discussions with your company and members of *the* New Mexico Junior College staff, we took a critical look at our course offerings – both in content and variety. Our first step was to review and modify the Algebra curricula for school year 04-05. Since Eunice High School is a small high school with limited instructional resources, any course additions or changes are significant. This year with your assistance, the high school introduced two new courses, namely a hands-on 'applied physics class' and an internet class entitled "Introduction to Nuclear Energy." These additions signal the district's long-term commitment to *our* children and parents to provide quality and relevant programs.

Of course, these activities are just the beginning of a new direction for the district *in* the area of workforce development. Starting with school year 05-06, the district will begin to develop a comprehensive career and trades curriculum, including revised curriculum, new courses, career pathways, workforce counseling, and renovation of needed facilities.

As always, your staff members have been eager to explore educational partnerships that will enhance the educational and workforce opportunities for our children. We thank *you* for your continuing interest and support in our schools.

Sincerely,

Toni Nolan Trujillo

Toni Nolan Trujillo

## ATTACHMENT 4-5 A.1

LES and AREVA Group Press Release

AREVA

NATIONAL ENRICHMENT FACILITY

**FOR IMMEDIATE RELEASE**

**Contact: LES: Marshall Cohen – 505-417-2395**
**April Wade – 505-440-9441**
**AREVA: Nancy Lang – 301-652- 5652**

# LES and AREVA Sign Memorandum of Understanding for Deconversion Facility near the National Enrichment Facility

**February 3, 2005 Albuquerque –** Louisiana Energy Services (LES) and the nuclear energy services company AREVA Inc., a subsidiary of the AREVA Group, have signed a Memorandum of Understanding that could lead to the construction of a private uranium hexafluoride deconversion plant to support the proposed National Enrichment Facility (NEF) outside Eunice, New Mexico.

Since coming to New Mexico LES has stated, and committed to New Mexico Governor Bill Richardson, Attorney General Patricia Madrid, and the citizens, their intent to pursue construction of a private deconversion facility outside of New Mexico to deconvert the NEF byproduct to uranium oxide that can be disposed of safely. The oxide would then be sent to low-level radioactive waste facilities outside the State of New Mexico for storage and/or disposal.

"LES has committed that we will not store waste for more than a few years, and we will dispose of byproducts out of state," said LES President Jim Ferland. "AREVA is the world expert in deconversion and they have been doing it for over 20 years, with over 300,000 tons of uranium hexafluoride having been processed. We are delighted that their technology will be available to us to achieve this goal."

"We look forward to working with LES and bringing AREVA's global technical expertise in uranium materials management to the project," said Mike McMurphy, President of AREVA, Inc.

While today's agreement marks significant progress toward a long-term deconversion and disposal path, Ferland noted it is important to understand this is just one step in a lengthy process.

"Although in most cases we would not be making deconversion plans so early in the process of developing an enrichment facility, Governor Richardson and Attorney General Madrid have pressed for this kind of commitment by LES toward out-of-state deconversion and disposal. A deconversion facility to support our enrichment plant is not necessary for a number of years yet, as there will not be any material to deconvert for some time. However, now that an agreement has been reached, important site selection, licensing and other activities must take place to identify a location that is suitable, convenient to the labor force, acceptable to regulators, and near the NEF," Ferland said. "Our agreement with AREVA provides a timeline for expected activities and operations.

AREVA

NATIONAL ENRICHMENT FACILITY

LES has made a strong commitment to the citizens and officials of New Mexico that there will be no long-term or indefinite storage of our byproduct in New Mexico. "As there are no ultimate disposal options in New Mexico," Ferland said. "We believe it makes the most sense to look outside New Mexico to site the deconversion facility. Thus we are looking at site options in Texas, near the NEF where disposal of the deconverted uranium oxide could be handled by a Texas low-level waste repository, should one be licensed by the State of Texas. This would bring economic development benefits there as well. It is also possible however, for the uranium oxide to be disposed of in several other licensed facilities in the United States.

Ferland added, "This agreement on deconversion goes beyond the requirements of the Nuclear Regulatory Commission (NRC) and affirms our company's commitment that we will remove and dispose of wastes and not store them indefinitely in New Mexico."

The NRC recently reaffirmed the plausibility of the LES backup option to transfer the depleted uranium hexafluoride to the Department of Energy (DOE) for disposition if for some reason a private deconversion facility is unavailable.

AREVA currently uses two proven technologies that will reduce the uranium by-product to a stable oxide form - which is recommended by the NRC for easiest long-term disposal.

AREVA's subsidiary, COGEMA is currently operating a large-scale deconversion plant in Pierrelatte, France. Another AREVA subsidiary, Framatome-ANP, operates a deconversion facility that supports a fuel fabrication plant in Washington State which will be the model process used for future DOE deconversion plants in Portsmouth, Ohio, and Paducah, Kentucky.

Within the U.S., AREVA has 41 offices and over 7000 employees. AREVA is also already part of the New Mexico business community. AREVA is a major supplier to U.S. utilities for uranium, conversion and enrichment services, fuel fabrication, reactor engineering, components and services, and spent fuel management solutions. Among other holdings, AREVA owns Canberra Aquila, Inc., an Albuquerque based company that is the recognized industry leader in the manufacture of surveillance systems; review stations; and electronic seals and tags for the worldwide nuclear safeguards community.

The NEF will provide more than 200 permanent jobs and more than 400 multi-year construction jobs in southeast New Mexico. It will use a proven technology that has operated safely in Europe for 30 years.

When the license application is approved, the NEF will introduce the world's most advanced uranium enrichment technology into the U.S. and provide an alternative, domestic enrichment supply source to U.S. nuclear energy companies.

LES is a partnership of major nuclear energy companies. Partners include Urenco, Westinghouse and U.S. energy companies Duke Power, Entergy and Exelon.

AREVA

NATIONAL ENRICHMENT FACILITY

With manufacturing facilities in over 40 countries and a sales network in over 100, AREVA offers its clients technological solutions for nuclear energy and electrical transmission and distribution. The group also provides interconnect systems to the telecommunications, computer and automotive markets. These businesses engage AREVA's 70,000 employees in the 21st century's greatest challenges: making energy and communication resources available to all, protecting the planet and acting responsibly towards future generations. AREVA, Inc. is headquartered in Bethesda, Md, with AREVA corporate headquarters in Paris, France.

# ATTACHMENT 4-6 A.1

AREVA Fact Sheet
Deconversion Technologies

AREVA Fact Sheet

Deconversion Technologies

The AREVA Group offers two deconversion technologies for defluorination of depleted uranium hexafluoride ($DUF_6$). Both processes are being considered for a private deconversion plant to support the National Enrichment Facility (NEF) outside Eunice, New Mexico.

## Rotary Kiln Technology

The W deconversion plant, operated by AREVA, located in Pierrelatte, France deconverts depleted uranium hexafluoride ($DUF_6$) into a stable, fluorine free uranium oxide and aqueous hydrofluoric acid. Some basic information and operational figures about the facility are provided below:

- In 1984, upon completion of the five year pilot test program, AREVA placed a first deconversion unit in service, so called W1.
- In 1993 a second unit, W2, came on line to double the capacity. Development of the W2 process included design improvements based on the lessons learned from 10 years of operations.
- The full W plant today allows processing of 20,000 metric tons (Mt) of DUF6 per year.
- AREVA has operated the W plant according to the highest Environmental, Safety and Health (ES&H) standards throughout its 20 years of deconversion operations.
- By end of 2004, the W plant has deconverted more than 300,000 tons of depleted UF6

Deconversion of $DUF_6$ is based on its reactivity to steam. The W plant technology utilizes two reactions performed in a continuous process inside a rotary kiln. The first is an exothermic hydrolysis reaction which produces an intermediate compound ($UO_2F_2$). The second is an exothermic reaction that creates the $U_3O_8$ and HF co-products. The HF passes through two filtration stages and a condenser to ensure purity.

This deconversion technology is considered a "dry" process because no liquid "process" effluents are generated. The majority of the operating waste generated from this facility is from personnel protective gear (booties and gloves). Some small amounts of waste are also generated during maintenance activities.

## Fluidized Bed Technology

AREVA Group offers another dry deconversion technology that was developed in the 1990's and is in use at the Richland, Washington, fuel fabrication facility. AREVA is currently designing/building two large facilities based on this technology with planned capacities of 15,000 metric tons per year of $DUF_6$ in Portsmouth, Ohio, and 20,000 metric tons per year of $DUF_6$ in Paducah, Kentucky, for the Department of Energy (DOE) as part of a consortium called Uranium Disposition Services (UDS). Final Environmental Impact Statements for the DOE facilities have been issued and are available through the DOE website.

This technology is a continuous process in which $DUF_6$ is vaporized and converted to uranium oxide by reaction with steam and hydrogen in a fluidized-bed conversion unit. HF is also produced from this reaction.

March 15, 2005

MEMORANDUM TO: Joseph G. Giitter, Chief
Special Projects Branch
Division of Fuel Cycle Safety
and Safeguards

THRU: Brian W. Smith, Chief /RA/
Gas Centrifuge Facility Licensing Section
Special Projects Branch, FCSS

FROM: Timothy C. Johnson, Project Manager /RA/
Gas Centrifuge Facility Licensing Section
Special Projects Branch, FCSS

SUBJECT: MARCH 2, 2005, TELEPHONE SUMMARY: LOUISIANA ENERGY SERVICES DISCUSSIONS ON DECOMMISSIONING FUNDING

On March 2, 2005, the U.S. Nuclear Regulatory Commission (NRC) staff held a telephone conference call with staff from Louisiana Energy Services (LES) to discuss decommissioning funding issues related to the LES uranium enrichment plant proposed to be built in Eunice, New Mexico. I am attaching the telephone summary for your use. No classified or proprietary information was discussed.

Docket: 70-3103

Attachment: Louisiana Energy Services
Telephone Summary

cc: William Szymanski/DOE
Monty Newman/Hobbs
Peter Miner/USEC
Glen Hackler/Andrews
James Brown/Eunice
Jerry Clift/Hartsville
Derrith Watchman-Moore/NMED
Tannis Fox/NMED
Lindsay Lovejoy/NIRS
Claydean Claiborne/Jal
James Curtiss/W&S
Betty Richman/Tatum
Lue Ethridge/Lea Cty
Richard Ratliff/Texas
Carol O'Claire/Ohio
Joseph Malherek/PC
Patricia Madrid/NMAG
Rod Krich/LES
Troy Harris/Lovington
James Ferland/LES
John Parker/NMED
Michael Marriotte/NIRS
Lee Cheney/CNIC
Ron Curry/NMED
Glenn Smith/NMAG

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FROM: Timothy C. Johnson, Project Manager /RA
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|---|---|---|---|---|---|---|
| NAME | TJohnson:bkh1 | | LMarshall | | TFredrichs | BSmith |
| DATE | 3/14/05 | | 3/15/05 | | 3/15/05 | 3/15/05 |

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**Telephone Conference Call Summary**

**Decommissioning Funding**

Date and Time: 2:30 PM; March 2, 2005

| Call Participants: | | |
|---|---|---|
| | C. Dean/ICF | J. Mayer/ICF |
| | E. Gormsen/ICF | T. Fredrichs/NRC |
| | T.C. Johnson/NRC | J. Klein/NRC |
| | L. Clark/NRC | R. Krich/LES |
| | D. Green/Excel | J. Kay/L&G |

On March 2, 2005, a conference call between U.S. Nuclear Regulatory Commission (NRC) and Louisiana Energy Services (LES) staffs was held to discuss decommissioning funding issues related to LES' application for a uranium enrichment facility proposed to be located in Eunice, New Mexico.

Discussion:

Prior to transmitting responses to NRC's clarifying questions discussed with LES on January 27, 2005, LES staff wished to discuss the information it planned to provide.

LES staff indicated that it would update Table 10.1-14 to include a revised escalation factor consistent with the ICF recommendations. LES staff also said it would clarify in a footnote that the $320,000 for sampling labor is included in the $1.4 million sampling costs in Table 10.1-5.

LES staff developed unit decommissioning costs by component and compared these values with information in NUREG/CR-6477, "Revised Analyses of Decommissioning Reference Non-Fuel-Cycle Facilities." The most applicable information in NUREG/CR-6477 was for the tritium and $C^{14}$ facilities. In general, the unit costs were similar to the information in NUREG/CR-6477. LES staff indicated that where the LES units costs are less than the NUREG/CR-6477 values, the differences are primarily due to the actual Urenco experience where rigorous housekeeping practices are used and contamination is maintained at low levels throughout the plant operations. These housekeeping practices result in reduced effort in decontamination operations needed at the time of decommissioning.

LES staff explained their approach for addressing third-party contractors performing the decommissioning work. A 110 percent overhead rate was added on direct staff labor costs and a 15 percent profit allowance was added to the total cost, which also included an activity-based estimate for restoration of facility grounds, based on NRC's STP-04-003, "Financial Analysis Methodology" of January 2004.

LES staff also clarified that the labor hours in Table 10.1-7 in the decommissioning or dismantling task include the separations modules.

LES staff stated that the basis for the disposal, conversion, and transportation costs would be provided. They said that this information had been previously provided in discovery and included an estimate from Transport Logistics International for transportation and a letter from Waste Control Specialists for disposal. LES staff indicated that it would also provide a letter

from the U.S. Department of Energy that includes a breakout of conversion, transportation, and disposal costs.

ICF and NRC staff indicated that the information discussed is what is needed to complete the review.

April 11, 2005

MEMORANDUM TO: Joseph G. Giitter, Chief
Special Projects Branch
Division of Fuel Cycle Safety
and Safeguards

THRU: Brian W. Smith, Chief. /RA/
Gas Centrifuge Facility Licensing Section
Special Projects Branch, FCSS

FROM: Timothy C. Johnson, Project Manager /RA/
Gas Centrifuge Facility Licensing Section
Special Projects Branch, FCSS

SUBJECT: MARCH 17, 2005, TELEPHONE SUMMARY: LOUISIANA ENERGY SERVICES DISCUSSIONS ON DECOMMISSIONING FUNDING

On March 17, 2005, the U.S. Nuclear Regulatory Commission (NRC) staff held a telephone conference call with staff from Louisiana Energy Services (LES) to discuss decommissioning funding issues related to the LES uranium enrichment plant proposed to be built in Eunice, New Mexico. I am attaching the telephone summary for your use. No classified information was discussed.

Docket: 70-3103

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