

March 24, 2005

NEF#05-013

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: Clarifying Information Related to Items Relied On For Safety Boundary Definition and Integrated Safety Analysis Summary Sequence FF7-1 (Cylinder Transporters/Movers)

- 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"

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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"

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.

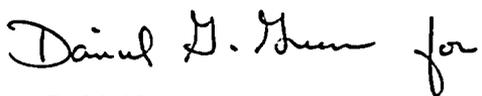
In conference calls between LES and NRC representatives, held on March 16, 2005, the NRC requested that clarification be provided concerning the use of the LES Items Relied On For Safety (IROFS) boundary definition procedure and the Integrated Safety Analysis (ISA) Summary Sequence FF7-1 (Cylinder Transporters/Movers). This information is provided in the form of revised License Application and ISA Summary pages. The updated ISA Summary page contains information that LES considers to be proprietary in accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding," paragraph (d)(1). Accordingly, we request that the updated page that contains proprietary information be withheld from public disclosure.

Enclosure 1 provides the proprietary version of the updated License Application and ISA Summary pages. The proprietary information is located on ISA Summary Table 3.7-4, Page 18 of 35. Enclosure 2 provides the non-proprietary version of the updated License Application and ISA Summary pages. 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). In the non-proprietary version, i.e., Enclosure 2, the page that contains proprietary information is withheld.

These updated pages will be formally incorporated into the applicable License Application and ISA Summary sections in a future revision.

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

Respectfully,



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

March 24, 2005

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Enclosures:

1. Clarifying Information Related to IROFS Boundary Definition and ISA Summary Sequence FF7-1 (Cylinder Transporters/Movers) (Proprietary Version)
2. Clarifying Information Related to IROFS Boundary Definition and ISA Summary Sequence FF7-1 (Cylinder Transporters/Movers) (Non-Proprietary Version)

cc: T.C. Johnson, NRC Project Manager

ENCLOSURE 1

**Clarifying Information Related to
IROFS Boundary Definition
and
ISA Summary Sequence FF7-1 (Cylinder Transporters/Movers)
(Proprietary Version)
(Includes Page that Contains Proprietary Information)**

3.3.5 For IROFS and IROFS with Enhanced Failure Probability Index Numbers (i.e., enhanced IROFS) that require "independent verification" of a safety function, the independent verification shall be independent with respect to personnel and personnel interface. Specifically, a second qualified individual, operating independently (e.g., not at the same time or not at the same location) of the individual assigned the responsibility to perform the required task, shall, as applicable, verify that the required task (i.e., safety function) has been performed correctly (e.g., verify a condition), or re-perform the task (i.e., safety function), and confirm acceptable results before additional action(s) can be taken which potentially negatively impact the safety function of the IROFS. The required task and independent verification shall be implemented by procedure and documented by initials or signatures of the individuals responsible for each task. In addition, the individuals performing the tasks shall be qualified to perform, for the particular system or process (as applicable) involved, the tasks required and shall possess operating knowledge of the particular system or process (as applicable) involved and its relationship to facility safety. The requirements for independent verification are consistent with the applicable guidance provided in ANSI/ANS-3.2-1994, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants.

3.3.6 Upon completion of the design of IROFS, the IROFS boundaries will be defined. In defining the boundaries for each IROFS, Louisiana Energy Services procedure DP-ISA-1.1, "IROFS Boundary Definition," will be used. This procedure requires the identification of each support system and component necessary to ensure the IROFS is capable of performing its specified safety function.

PROPRIETARY INFORMATION

Table 3.7-4 External Events and Fire Accident Descriptions

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Accident Identifier: FF7-1 (Cylinder Transporters/Movers)

The frequency index number for the initiating event was determined to be (-2). The NUREG-1520 criteria – no failures of this type in this facility in 30 yrs – applies. (See FF1-1 for justification.)

The uranium inventory would be one UF₆ cylinder (a 48X, 48Y, or a 30B) in transit.

The uncontrolled event is a fire involving excessive combustibles on any onsite cylinder transporter/mover that could result in a release of the UF₆ inventory (failure of IROFS36c: administratively limit onsite UF₆ cylinder transporters/movers to ensure only use of electric drive or diesel powered with a fuel capacity of less than 280 L (74 gal). This event was assumed to have a high consequence.

For the controlled event, a fire considering expected in-situ and transient combustibles would be a low consequence event. The UF₆ inventory was discounted as not being released during a fire due to insufficient combustibles being present to cause failure of a cylinder. Cylinder transporter/mover design will be limited to be either electric drive or diesel drive with a fuel capacity of less than 280 L (74 gallons). Diesel driven onsite UF₆ cylinder transporters/movers are not used for cylinder transport inside NEF buildings. Since filled 30B cylinders are stored inside the NEF buildings, only electric driven onsite UF₆ cylinder transporters/movers are used for transport of filled 30B product cylinders inside NEF buildings. When filled 30B product cylinders are transported outside of NEF buildings, they are in DOT required overpacks as described in accident sequence FF5-2. Empty 30B cylinders may be stored outside NEF buildings and, as a result, may be transported by diesel driven onsite UF₆ cylinder transporters/movers. The preventive measure is to administratively limit onsite UF₆ cylinder transporters/movers to ensure only use of electric drive or diesel powered with a fuel capacity of less than 280 L (74 gal) (IROFS36c).

The failure probability index for administrative controls/procedures of IROFS36c was determined to be (-3). The NUREG-1520 criteria – a routine administrative IROFS - applies. The IROFS justification for enhanced administrative control is discussed in Section 3.8.3.

Accident Identifier: FF8-1 (Cascade Hall Inside Assay Thermal Enclosure - typical for 6 halls)

The frequency index number for the initiating event was determined to be (-2). The NUREG-1520 criteria – no failures of this type in this facility in 30 yrs – applies. (See FF1-1 for justification.)

The uranium inventory consists of UF₆ in piping and centrifuges. The inventory in an assay (8 cascades) is 128 kg (282 lb).

The uncontrolled event is fire propagating into this area from other areas that could result in a release of the UF₆ inventory (failure of IROFS35: automatic closure of fire-rated barrier opening protectives (e.g., doors, dampers, penetration seals) to ensure the integrity of area fire barriers prevents fire from propagating into areas containing uranic material). This event was assumed to have a high consequence.

For the controlled event, fire would not propagate into the area due to automatic closure of fire-rated barrier opening protectives (e.g., doors, dampers, penetration seals) to ensure the integrity of area fire barriers prevents fire from propagating into areas containing uranic material (IROFS35).

The failure probability index for fire barriers was determined to be (-3). This corresponds to an active engineered IROFS per NUREG-1520. The IROFS justification for high availability is discussed in Section 3.8.3.

Type of Accident – T for Chemical
CR for Criticality

ENCLOSURE 2

**Clarifying Information Related to
IROFS Boundary Definition
and
ISA Summary Sequence FF7-1 (Cylinder Transporters/Movers)
(Non-Proprietary Version)
(Page Containing Proprietary Information Has Been Withheld)**

- 3.3.5 For IROFS and IROFS with Enhanced Failure Probability Index Numbers (i.e., enhanced IROFS) that require independent verification of a safety function, the independent verification shall be independent with respect to personnel and personnel interface. Specifically, a second qualified individual, operating independently (e.g., not at the same time or not at the same location) of the individual assigned the responsibility to perform the required task, shall, as applicable, verify that the required task (i.e., safety function) has been performed correctly (e.g., verify a condition), or re-perform the task (i.e., safety function), and confirm acceptable results before additional action(s) can be taken which potentially negatively impact the safety function of the IROFS. The required task and independent verification shall be implemented by procedure and documented by initials or signatures of the individuals responsible for each task. In addition, the individuals performing the tasks shall be qualified to perform, for the particular system or process (as applicable) involved, the tasks required and shall possess operating knowledge of the particular system or process (as applicable) involved and its relationship to facility safety. The requirements for independent verification are consistent with the applicable guidance provided in ANSI/ANS-3.2-1994, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants.
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The following page, in its entirety, contains proprietary information in accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding," paragraph (d)(1) and has been withheld.

NEF ISA Summary – Revision 4

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Table 3.7-4

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