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SEP 16 2009

NEF-09-00175-NRC

Attn: Document Control Desk
Director
Office of Nuclear Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

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

Subject: Response to Request for Additional Information on LAR-09-09

Reference:
1) Letter from LES to NRC, NEF-09-00104-NRC, License Amendment Request to add sole IROFS for an unanalyzed accident involving the Assay Sampling Rig (LAR-09-09), June 11, 2009
2) Letter from NRC to LES, LES Request for Additional Information for LAR for the NEF to add sole IROFS for an Unanalyzed Accident involving the Assay Sampling Rig (LAR-09-09), August 17, 2009.

On June 11, 2009 LES submitted a License Amendment Request to authorize the design modification and revisions of Items Relied on for Safety (IROFS) to control chemical releases for the Assay Sampling Rig (Ref. 1). On August 17, 2009, the NRC provided a Request for Additional Information on the subject LAR (Ref. 2),

Attached as Enclosure 2 are responses to the RAIs. The consequence calculation ETC4058167 which was requested in RAI #1 will be sent under separate cover letter either directly from the ET-UK offices or under LES cover letter once they have been provided to or appropriately marked for LES use.

Enclosure 1 provides an affidavit whereby LES considers the information provided in the Enclosure 2 to be proprietary Commercial in Confidence (CIC) and requests the information be withheld from public disclosure in accordance with 10 CFR § 2.390(a)(4). Enclosure 3 is the portion marked (Redacted) version of Enclosure 2. Enclosure 3 to this letter may be publicly disclosed.

LES appreciates the efforts of the NRC staff in supporting the review and approval of this License Amendment Request in a timely manner. Should there be any questions, please contact Stephen Cowne, LES Director, Quality and Regulatory Affairs at 575.394.5253.

Respectfully,

Gregory OD Smith
Chief Operating Officer and Chief Nuclear Officer

Enclosures: Enclosure 1 – Affidavit
Enclosure 2 – RAI Response
Enclosure 3 – RAI Response (Redacted Version)

cc:

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Enclosure 3
Redacted version of Enclosure 2 to NEF-09-00175-NRC, Enclosure 2
Response to Request for Additional Information to add sole IROFS for an Unanalyzed Accident Involving the Assay Sampling Rig (LAR-09-09)

1. Page 16, Section 6.0

Provide the technical basis used in the consequence analysis to determine that the mitigated consequences of accident sequence PT5-1 (IROFSC21 Success) is low. The mitigative function of this items relied on for safety (IROFSC21) is to reduce the amount of material released in the event to a level such that the consequences to the worker from inhalation of uranic material and Hydrogen Fluoride are low. A comparison of uranium hexafluoride mass flow rates without IROFSC21 (unmitigated) and with IROFSC21 (mitigated) should be provided. Title 10 of the Code of Federal Regulations 10 CFR 70.62(c)(1)(v) requires the licensee conduct and maintain an integrated safety analysis, that is of appropriate detail for the complexity of the process, that identifies the consequence and likelihood of occurrence of each potential accident sequence identified.

LES Response:

The IROFSC21 Consequence Calculation for System 426, Assay Sampling Vacuum Pump/Trap Set (PT5-1) passive engineered flow restriction is ETC4058167, *Assay Sampling Rig Consequence Calculation.* ETC4058167 consequence calculation is currently designated for ETC use only and is located in Document Control in Capenhurst, United Kingdom, ET-UK offices. This calculation will be sent under separate cover letter either directly from the ET-UK offices or under LES cover letter once they have been provided to or appropriately marked for LES use.

ETC4058167 was produced to determine the size of the orifice required [redacted] if the new PT5-1 accident scenario were initiated. The unmitigated scenario was assumed to result in consequences exceeding the low threshold and therefore the maximum achievable mass flow rate is not in the calculation. The IROFSC21 flow restriction ensures consequences are maintained below 10 CFR 70.61 performance requirements [redacted] as described in ETC4058167. A [redacted] is the maximum allowable for maintaining low consequences. An orifice [redacted] as calculated in ETC4058167 [redacted] for maintaining low consequences.

2. Page 18, Section 6.2

Describe the management measures that will be applied to IROFSC21 to ensure that it will be available and reliable to perform its safety function when needed, thus

justifying the IROFS failure probability index value of (-3). Table 3.7-2 in Enclosure 3 to LAR-09-09 states that, "A failure probability index of (-3) was selected for IROFSC21. This corresponds to a single passive engineered IROFS per NUREG-1520." However, the guidance provided in NUREG-1520 also indicates that a failure probability index of (-3) applies to "..a single passive-engineered IROFS, functionally tested on a regular basis..." The licensee states in Section 6.2 of Enclosure 2 to LAR-09-09, "The new passive engineered control IROFSC21 is a Quality Level-1 control with required management measures." However, no specific management measures, nor any specific reference to the management measures in the Integrated Analyses (ISA) Summary, are provided. 10 CFR 70.65(b)(4) requires the ISA Summary to contain a description of the management measures.

LES Response:

Management Measures will ensure compliance with the performance requirements and provide reasonable assurance of the availability and reliability of IROFS and include: Configuration Management, Maintenance, Training and Qualification, Procedures, Audits and Assessments, Incident Investigations, and Records Management as identified in ISA Summary Section 3.1.8.3, *Management Measures* and Safety Analysis Report Chapter 11, *Management Measures*. Relative to IROFSC21, Management Measures shall be applied to the design, analysis, testing, installation and maintenance of the flow restriction orifice that is installed to perform this function. This includes validation to confirm the orifice specifications prior to operation. Personnel performing these activities are properly trained to follow necessary procedures.

URENCO has many years of experience using flow restriction or orifices in UF6 applications. The materials of construction are chosen as they have been observed to not corrode or erode with the use of UF6. With the use of an orifice, any material build up during operations will increase the safety margin by further restricting flow. When the orifice is removed from service and cleaned, measurements will be performed to confirm the device remains within design requirements to meet its IROFS performance requirements.

IROFSC21 Management Measures will be compliant with 10 CFR 70.65(b)(4) and NUREG-1520, Section 3.4.3.2, as identified in the NEF ISA Summary, Section 3.0.1, *Regulatory Requirements/Guidance,* table.