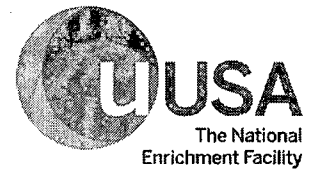


LES-21-161-NRC



11/11/21

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

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

Subject: Semi-Annual Safety Analysis Report (SAR) Update

In accordance with Materials License SNM-2010, Condition 30, Louisiana Energy Services (LES), dba Urenco USA (UUSA) herewith submits changes made under UUSA's own authority to the Safety Analysis Report (SAR) for the semi-annual period of May, 2021 through October, 2021.

Enclosure 1 contains the marked up pages to the Safety Analysis Report for revision 48a. A description of each change is provided in the revision history. Revision bars, strikethroughs and underlines were utilized.

If you have any questions concerning this submittal, please contact Barry Love, Licensing Specialist at 575.394.4482.

Respectfully,

Wyatt  
Padgett

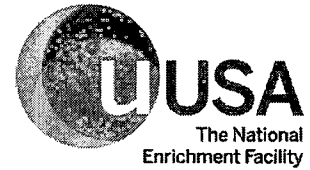
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Padgett  
Date: 2021.11.11 10:31:49  
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Wyatt Padgett  
Compliance and Licensing Manager

Enclosure: 1) Marked up pages of the Safety Analysis Report.

NMSS20  
NMSS

LES-21-161-NRC



CC: via email

Matt Bartlett, Project Manager – UUSA  
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**Enclosure 1**  
**Marked up pages of the Safety Analysis Report**  
(revision bars, strikethroughs and underlines utilized)

# **SAFETY ANALYSIS REPORT**

## **Revision 48a**

# Table of Contents

Summary of Changes Rev <u>48a</u> 48		
Issue / Date	Change	Description of Change
Rev 48	LBD CR-21-002	<u>Added 30wt%</u> to the missing section <del>10wt%</del> and $\leq 30wt\%$ under interaction
	LBD CR-21-003	<del>Editorial Changes the SAR removed engineering degree requirement for Security &amp; Safeguards Manager</del> <del>CC-SY-2020-0003</del>
<u>Rev 48a</u>		<u>Organizational change removed ECP responsibilities from the Quality Assurance Manager (GCP-023).</u>

## 2.1 Organizational Structure

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### 2.1 Organizational Structure

The LES organizational structure is described in the following sections. The organizational structure indicates the lines of communication and management control of activities associated with the design, construction, operation, and decommissioning of the facility.

#### 2.1.1 Corporate Functions, Responsibilities, and Authorities

LES is a registered limited liability company formed solely to provide uranium enrichment services for commercial nuclear power plants. The LES company organization and management structure is described in Chapter 1, Section 1.2, Institutional Information.

Lea County, New Mexico has accepted the LES proposal to develop URENCO USA (UUSA). Lea County has issued Industrial Revenue Bond (National Enrichment Facility Project) Series 2004, as amended, in the maximum aggregate principal amount of \$400,000,000, as well as Series 2015 in the maximum aggregate principal amount of \$1,400,000, both to accomplish the acquisition, construction and installation of the project pursuant to the County Industrial Revenue Bond Act, Chapter 4, Article 59 NMSA 1978 Compilation, as amended. The Project is comprised of the land, buildings, and equipment.

Under the Act, Lea County is authorized to acquire industrial revenue projects to be located within Lea County but outside the boundaries of any incorporated municipality for the purpose of promoting industry and trade by inducing manufacturing, industrial and commercial enterprises to locate or expand in the State of New Mexico, and for promoting a sound and proper balance in the State of New Mexico between agriculture, commerce, and industry. Lea County will lease the project to LES, and LES will be responsible for the construction and operation of the facility. Upon expiration of the Bond after 30 years, LES will purchase the project.

The County has no power under the Act to operate the project as a business or otherwise or to use or acquire the project property for any purpose, except as lessor thereof under the terms of the lease.

In the exercise of any remedies provided in the lease, the County shall not take any action at law or in equity that could result in the Issuer obtaining possession of the project property or operating the project as a business or otherwise.

LES is responsible for the design, quality assurance, construction, operation, and decommissioning of the enrichment facility. The President and Chief Executive Officer of LES reports to the LES Board of Managers as described in Section 1.2.

The President and Chief Executive Officer receives policy direction from the LES Board of Managers. Reporting to the President and Chief Executive Officer is the Compliance Manager, Chief Nuclear Officer, the Operations Manager, the Engineering and Projects Manager, the Maintenance Manager, the Decommissioning, Decontamination and Recycling Manager, Logistics Manager, the Safety and Emergency Response Manager, the Site Controller, and the Human Resources Manager. The Quality Assurance (QA) and ~~Employee Concerns Program~~ Manager reports to the Compliance Manager for functional day to day activities and has a direct line of communication to the Chief Nuclear Officer and President and Chief Executive Officer for

## 11.1 Configuration Management (CM)

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### 11.1 Configuration Management (CM)

This section describes the configuration management program for the UUSA. Configuration management (CM) for UUSA is implemented through the requirements of the UUSA QAPD. Configuration Management is a core Administrative Control implementing Management Measures at UUSA.

The LES President is the executive responsible for quality assurance and is the highest level of management responsible for LES's QA policies, goals, and objectives. The President and Chief Executive Officer receives policy direction from the LES Board of Managers. The LES organization construction and operation phases, is presented in Chapter 2, Organization and Administration. This organizational structure is implemented for the design, construction and operation of the NEF. Implementation of QA requirements is directed by the UUSA Quality Assurance and Employee Concerns Manager.

#### 11.1.1 Configuration Management Policy

CM for UUSA is established in accordance with the requirements of 10 CFR 70.72 and 10 CFR 70.62(d).

Configuration management is maintained throughout facility design, construction, testing, and operation of UUSA. Configuration management is an administrative management measure that establishes and maintains UUSA's safety bases by maintaining a technical baseline for the facilities, processes and procedures utilized at UUSA. The level of rigor for CM is established based on risk to the public, worker and environment and is implemented by the QAPD which prescribes Quality Assurance Levels commensurate with risk(s). The QAPD categorizes the safety significance of structures, systems and components (SSCs) as Quality Assurance (QA) Level 1, QA Level 1 Graded, QA Level 2AC, QA Level 2 and QA Level 3.

During design and construction, Project Engineering has responsibility for configuration management through established design control processes. Documentation for Items Relied On For Safety (IROFS), including the Integrated Safety Analysis (ISA), is controlled under the configuration management system which implements the procedures associated with design control, document control, and records management, etc. Design changes undergo formal review, including interdisciplinary reviews as appropriate, in accordance with these procedures. Interdisciplinary reviews include as a minimum, a review for ISA impacts.

Configuration management provides the means to establish and maintain the essential features of the design basis of Item Relied On For Safety IROFS, including the ISA. As the project progresses from design and construction to operation, configuration management is maintained by the Engineering organization. Responsibility for CM activities is clearly defined for SSCs throughout their life cycle.

Integrated Safety Analysis Summary Section 4.0, Phased Operation, described ongoing construction activities during the operations phase. In addition to the Configuration Management controls specified above for the construction phase, these activities will be reviewed to identify and minimize any adverse effect upon plant operation.

## 11.5 Audits and Assessments

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### 11.5.2 AUDITS

Audits of the QA Level 1, QA Level 1 Graded, and QA Level 1-Fire Protection (QI-1F) work activities are performed in accordance with the QAPD. The audit scope will include those activities associated with IROFS and any items that are essential to the function of the IROFS and items required to satisfy regulatory requirements for which QA Level 1, QA Level 1 Graded, and QI-1F requirements are applied will be the responsibility of the QA Department. Audits are focused on verifying compliance with regulatory and procedural requirements and licensing commitments.

Audits are performed to assure that facility activities are conducted in accordance with the written procedures and that the processes reviewed are effective. As a minimum, they shall assess activities related to radiation protection, criticality safety control, hazardous chemical safety, industrial safety including fire protection, and environmental protection.

Audits shall be performed routinely by qualified staff personnel that are not directly responsible for production activities. Deficiencies identified during the audits requiring corrective action shall be forwarded to the responsible manager of the applicable area or function for action in accordance with the CAP procedure. Future audits shall include a review to evaluate if corrective actions have been effective.

The Quality Assurance Department shall be responsible for performing the audits. Audits shall be performed in accordance QAPD requirements. The Audit Team members shall not have direct responsibility for the function and area being audited. Team members shall have technical expertise or experience in the area being audited and shall be indoctrinated in audit techniques. For Construction Phase activities, audits shall be conducted on an annual basis as described in the QAPD. For Operations Phase activities, audits shall be conducted on a biennial basis as described in the QAPD. The frequency of audits is based upon the status and safety importance of the activities being performed and upon work history. The audit schedule is reviewed periodically and revised as necessary to ensure coverage commensurate with current and planned activities. All aspects of the Nuclear Criticality Safety Program will be audited at least every two years.

Corrective actions following issuance of the audit report require compliance with the applicable CAP procedures. Audit reports are required to contain an effectiveness evaluation and statement for each of the applicable QA program elements reviewed during the audit. The audit is closed with the proper documentation as required by the applicable audit procedure. The QA organization will conduct follow-up audits to verify that corrective actions were taken in a timely manner. In addition, future audits will include a review to evaluate if corrective actions have been effective.

The Quality Assurance and Employee Concerns Manager initiates audits. The responsible Lead Auditor and Quality Assurance and Employee Concerns Manager determine the scope of each audit and may initiate special audits or expand the scope of scheduled audits. The Lead Auditor directs the audit team in developing checklists, instructions, or plans and performance of the audit in accordance with the QAPD.

The results of the audits shall be provided in a written report in a timely manner to the Operations Manager, Engineering and Projects Manager, Maintenance Manager, or



## 11.5 Audits and Assessments

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Compliance Manager as appropriate, and the Chief Nuclear Officer, the Safety Review Committee (SRC), and the Managers responsible for the activities audited. Any deficiencies noted in the audits shall be entered into the CAP, responded to promptly by the responsible Managers or designees, and tracked to completion and re-examined during future audits to ensure completion of corrective actions.

Auditors and lead auditors are responsible for performing audits in accordance with the applicable QA procedures. Auditors and lead auditors hold certifications as required by the QAPD. Certification of auditors and lead auditors is based on the QA and Employee Concerns Program Manager's evaluation of education, experience, professional qualifications, leadership, sound judgment, maturity, analytical ability, tenacity, and past performance and completion of QA training courses. A lead auditor must also have participated in a minimum of five QA audits or audit equivalent within a period of time not to exceed three years prior to the date of certification. Audit equivalents include assessments, pre-award evaluations or comprehensive surveillances (provided the prospective lead auditor took part in the planning, checklist development, performance, and reporting of the audit equivalent activities). One audit must be a nuclear-related QA audit or audit equivalent within the year prior to certification.

QAPD, Section 18 "Audits" provides additional details regarding the QA Audit program requirements.

Records of the instructions and procedures, persons conducting the audits or assessments, and identified violations of license conditions and corrective actions taken shall be maintained.

## 11.8 Other QA Elements

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- Interconnecting Corridor (ICC) superstructure. The ICC slab on grade is designated QL-3.

### QA Level 1-Fire Protection (QL-1F Requirements)

QA Level 1-Fire Protection Program shall conform to applicable portions of 10 CFR 50, Appendix B (CFR, 2003b) and shall be met by commitments to follow the guidelines as specified in the QA Program Description. The graded QL-1F Program shall be applied exclusively to those fire protection features designated as IROFS. Such IROFS designated fire protection features are those whose failure has been analyzed to result in consequences that exceed the 10 CFR 70.61 performance requirements. The QL-1F program is applied to design, procurement, and other activities as described in Section 23 of the QAPD.

### QA Level 2AC Requirements

QA Level 2AC is applied to certain Support Equipment for Administrative Control IROFS. The QA Level 2AC Support Equipment activities shall be identified in applicable QA procedures, implementing documents, and documents specifying quality requirements or prescribing activities affecting quality. These requirements are implemented by LES and LES contractors through the use of approved QA programs and procedures.

Any removal of the management measure designed to provide assurance of the Support Equipment relied upon by the worker, or removal of the Support Equipment quality requirements from the Administrative Control IROFS Boundary, would be considered a reduction in commitment and require regulatory approval prior to implementation.

### QA Level 2 Requirements

The QA Level 2 program is an owner defined QA program that uses the ASME NQA 1. General QA Level 2 requirements are described in Section 20, "Quality Assurance Program for QA Level 2 Activities". For contractors, the QA Level 2 program shall be described in documents that must be approved by LES. The QA Level 2 program shall be applied to Owner designated structures, systems, components, and activities. An International Organization for Standardization (ISO) 9000 series QA program may be acceptable for QA Level 2 applications provided it complies with UUSA Quality Assurance Program Description requirements. The QA program manual must be reviewed and accepted by the UUSA QA and Employee Concerns Manager.

### QA Level 3 Requirements

The QA Level 3 program is defined as standard commercial practice. A documented QA Level 3 program is not required. QA Level 3 governs all activities not designated as QA Level 1, QA Level 1 Graded, QA Level 2AC or QA Level 2. Any removal of the management measures designed to provide assurance of other equipment attributes, identified in Table 3.4-1 of the SAR, that are used by the worker would be considered a reduction in commitment and require regulatory approval prior to implementation.

UUSA Quality Assurance Program Description provides additional details and commitments to other QA elements that will be implemented to support the Management Measures described in this chapter.