LES

urenco

NOV 17 2009

NEF-09-00213-NRC

Attn: Document Control Desk
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: LAR-09-34, Changes to LES Fundamental Nuclear Material Control Plan

Reference: 1) NEF-09-00004-NRC, LAR-09-01, License Amendment Request for the Fundamental Nuclear Material Control Plan, Revision 7, dated January 9, 2009

Pursuant to 10 CFR 70.34, Louisiana Energy Services, LLC (LES) herewith submits a license amendment request (LAR-09-34) for changes to its Fundamental Nuclear Material Control Plan (FNMCP). LES proposes that these changes be incorporated following the NRC's approval of LAR-09-01 (Ref.1). The changes entail revisions to the Plan that are needed prior to completion of the NRC Operational Readiness Review. Enclosure 1 provides a description and justification for the proposed changes. Enclosure 2 provides changes to the FNMCP.

Enclosure 2 contains security-related information and disclosure to unauthorized individuals could present security vulnerabilities. Therefore, LES requests that this enclosure be withheld from public disclosure in accordance with 10 CFR 2.390.

Should there be any questions concerning this submittal, please contact Mr. Stephen Cowne, LES Director, Quality and Regulatory Affairs, at 575.394.5253.

Respectively,

Gregory OD Smith
Chief Operating Officer and Chief Nuclear Officer

Enclosures: 1) Background, Proposed Change, Basis for Change
2) Page Changes to the FNMCP

NMSS01

cc:

Tyrone D. Naquin, Program Manager
Two White Flint North
Mail Stop EBB2-C40M
11545 Rockville Pike
Rockville, MD 20852-2738

Deborah A. Seymour
Chief, Construction Projects Branch 1
U.S. Nuclear Regulatory Commission Region II
Sam Nunn Atlanta Federal Center, 23 T85
61 Forsyth Street, SW
Atlanta, GA 30303-8931

Enclosure 1

National Enrichment Facility, LAR-09-34

Background, Proposed Change, Basis for Change

Background

On March 4, 2008, LES approved changes to the FNMCP in accordance with 10 CFR 70.32(c)(1)(iii). LES submitted those changes to the NRC within six months on September 4, 2008 as required by 10 CFR 70.32(c)(2)(ii). In addition, LES submitted other changes which were approved locally between March 4, 2008 and September 4, 2008 to reduce the number of submittals that LES provides to the NRC. These changes collectively were reflected as Revision 7.

On January 7, 2009, LES received a letter from the NRC stating that the changes submitted under 10 CFR 70.32(c) were determined by the NRC to decrease the effectiveness of the overall material control and accounting program and thus should be submitted in accordance with 10 CFR 70.34 as an amendment to the LES License.

On January 9, 2009, LES submitted a License Amendment Request (LAR-09-01) to the NRC requesting approval of the changes which were previously made under Revision 7 of the FNMCP. This LAR is still under NRC review.

The changes in this submittal are based upon the changes submitted in LAR-09-01 and therefore contingent upon the approval of LAR-09-01. The changes are needed to show an effective program for the NRC Operational Readiness Review (ORR). Therefore, LES is requesting approval of the changes in LAR-09-34 and LAR-09-01 prior to the NRC finalizing its ORR for the Material Control and Accountability (MC&A) Program.

In addition and after NRC approval of LAR-09-01, LES will be making changes to the FNMCP under LES approval authority. These changes will be processed with the LES configuration change process and adequate approval authority will be determined prior to implementing the changes. LES will submit these changes to the NRC in accordance with 10 CFR 70.32(c)(2)(ii) prior to the NRC completing its ORR of the MC&A Program.

Proposed Change & Basis for Change

The changes proposed to the FNMCP and basis for the changes are listed in the table on the following page:

Safety Significance

There is no safety significance associated with the proposed amendment since the changes do not impact any hazards evaluations or accident analyses previously dispositioned.

Environmental Considerations

There are no environmental impacts associated with the changes proposed in this License Amendment Request. The proposed changes do not meet the criteria specified in 10 CFR 51.60(b)(2) since they do not involve an expansion of the site, a change in the types of effluents, an increase in the amounts of effluents, an increase in individual or cumulative occupational radiation exposure, or an increase in potential for or consequences from radiological accidents. Consequently, a separate supplement to the Environmental Report is not being submitted.

Enclosure 1
National Enrichment Facility, LAR-09-34
Background, Proposed Change, Basis for Change

Proposed Change & Basis for Change

Citation	Previous Wording	Proposed Change	Change Justification
1.3.3 Material Control Specialist, Pg 24, former first bullet	Oversight of receipts, shipments, and material handling	Delete text	This statement moves to logistics instead of under the Material Control Specialist (MCS) responsibilities. Shipments, receipts, and material movements for MC&A fall under the Implementation of the item control program (bullet 3). This would include a flow down procedure to delineate MC&A tasks related to shipment, receipts and transfers. These tasks may be performed by the MCS, Logistics, or Operations. The oversight of receipts, shipments, and material handling belongs in Logistics since these activities involve more activities than MC&A, such as hazardous materials transport, dangerous goods transport, etc…
2.1.1 Measurement Considerations, Pg 56	Final accountability values for feed, product, tails and feed purification cylinders are established based on weight measurements using the cylinder weighing system. Each cylinder is weighed twice with the cylinder rotated 180 degrees around the vertical axis between measurements. The final cylinder weight is the average of the two readings. This requirement applies to all filled and emptied feed, product, tails and feed purification cylinders.	Final accountability values for feed, product, tails and feed purification cylinders are established based on weight measurements using the cylinder weighing system.	This particular technique will no longer be used by LES. Instead a gyroscopic scale will be used. Detailed technique content is located in flow down measurement program procedures, referenced in section 1.4 *MC&A Procedures.*

Enclosure 1
National Enrichment Facility, LAR-09-34
Background, Proposed Change, Basis for Change

Citation	Previous Wording	Proposed Change	Change Justification
2.1.6.7 HF Correction Value, Pg 62;	2.1.6.7 HF Correction Value - Volatile impurities contained in feed cylinders are removed from the cylinder during the purification cycle and are collected in chemical traps. These non-Uranic compounds consist mostly of HF with small quantities of air. The mass of HF collected on chemical traps is continuously monitored using a weighing system on each trap. The mass of HF collected in chemical traps is subtracted from the mass of UF6 feed material introduced to the enrichment process to correct for the initial assumption of 100% purity.	Deleted text	This method is no longer needed due to the use of NDA to quantify the traps. Removed systems description in 2.1.6.7. Removed citation in formula in section 5.2.1, also removed the explanation of the term in the equation in 5.2.1.2.
5.2.1 Inventory Difference Determination, Pg 138;	5.2.1 A_{HF} as listed in the ATI equation A_{HF} = Correction to account for HF in feed material		
5.2.1.2 Additions to Inventory, Pg 139	5.2.1.2.... The mass of HF collected in the chemical traps is subtracted from the additions since it is assumed to be UF6 until it is recovered and measured.		
2.2.3.2. Gaseous UF_6 Sampling, Pg 73, second paragraph	All assay gas sample points have tamper-indicating seals and all header gas sample points are secured with locks in accordance with LES UF_6 Gas Sampling procedures.	Access to gas sample points will be restricted by physical barriers, e.g., doors, locks.	Specifics regarding the physical protection and access controls related to the gas sample points are covered in detail in the Physical Security Plan. TIDs/seals will not be used on gas sample points as part of the MC&A program.
3.2.1. Calibration Standards, Pg 92, first paragraph, seventh sentence	Biannual...	Biennial...	Typing mistake in the original FNMCP. Rule only requires re-certification every two years.

Enclosure 1
National Enrichment Facility, LAR-09-34
Background, Proposed Change, Basis for Change

Citation	Previous Wording	Proposed Change	Change Justification
3.4.1.1. Weighing Systems, Pgs 103-104	Weighing systems are non-sampling measurement systems. Therefore the random error consists of analytical random error only. Production weight measurements using the cylinder weighing systems are made twice and averaged. The second weighing is made after the component is removed from the weighing system and rotated 180 degrees around the vertical axis. The average of the two values is used as the official weight. Replicate measurements are based on the average of two additional weighings. The difference between the two averages must be less than $\pm 3\sigma$ (where σ is the relative standard deviation for historical paired differences) or the values are rejected and another set of measurements made. Replicate measurements of process cylinders and traps are not performed for these load cell systems because it would be impractical during production operations. The analytical random error is determined 1) at the time the load cells are calibrated by performing multiple measurements of calibration standards, 2) when statistical comparison is made between the process measured value of an item versus the value determined using an appropriate weighing system that is in statistical control (see 3.3.1.1) and, 3) from data generated from periodic measurement of control standards.	Weighing systems are non-sampling measurement systems. Therefore the random error consists of analytical random error only. The analytical random error is determined 1) at the time the load cells are calibrated by performing multiple measurements of calibration standards, 2) when statistical comparison is made between the process measured value of an item versus the value determined using an appropriate weighing system that is in statistical control (see 3.3.1.1) and, 3) from data generated from periodic measurement of control standards.	More detail regarding random error determination is added. Specifics regarding the techniques have been removed and will be detailed in flow down procedures, referenced in section 1.4 *MC&A Procedures*.