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LES-12-00003-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 Number: 70-3103

Subject: Reply to Notice of Violation 70-3103/2011-009

Reference: 1. Letter from S. Freeman (NRC) to J. Laughlin (UUSA) NRC Inspection Report No. 70-3103/2011-009 and Notice of Violation, dated December 8, 2011

NRC Notice of Violation 70-3103/2011-009 (Notice), Ref. 1, was received by Louisiana Energy Services, LLC (dba "UUSA") on December 12, 2011. On January 9, 2012, in a telecommunication between J. Calle (NRC) and Z. Rad (UUSA), verbal authorization was granted to extend the due date of the Reply to the Notice from January 9, 2012 to January 10, 2012. In response to the Notice URENCO USA (UUSA) herewith provides the enclosed Reply (Enclosure). The Reply addresses Violation A of the Notice as it relates to Section 16 (Corrective Action); and Violation B of the Notice as it relates to Section 3 (Design Control) of the UUSA Quality Assurance Program Description (QAPD), respectively.

Pursuant to the provisions of 10 CFR 2.201(a) and the NRC's corresponding instructions specified in the Notice, the Enclosure addresses for each of the Examples of Violations A and B: 1) the reason for the violation; 2) the corrective steps that have been taken and the results achieved; 3) the corrective steps that will be taken; and 4) the date when full compliance will be achieved.

Should there be any questions regarding this submittal, please contact Zackary Rad, UUSA Licensing Manager, at 575.394.6689.

Respectfully

Zackary Rad for Perry Robinson Vice President of Regulatory Affairs and General Counsel

Enclosure: Reply to Notice of Violation 70-3103/2011-009 CC:

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ENCLOSURE

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REPLY TO NOTICE OF VIOLATION (NOTICE) 70-3103/2011-009

Restatement of Violation:

During a Nuclear Regulatory Commission (NRC) inspection conducted onsite September 26-30, 201 1, and in the NRC Region II office September 26 to October 7, 2011 and October 31 to November 4, 2011, violations of NRC requirements were identified.

In accordance with the NRC Enforcement Policy, the violations are listed below:

A. Special Nuclear Material License No. 2010 requires, in part, that the licensee shall conduct authorized activities at the Louisiana Energy Services, L.L.C., National Enrichment Facility (LES NEF) in accordance with statements, representations, and conditions in the approved Quality Assurance Program Description (QAPD), dated April 9, 2004, and supplements thereto.

Section 16, Corrective Action, of the QAPD states, in part, that conditions adverse to quality including activities and services shall be identified promptly and corrected as soon as practical.

Contrary to the above, a condition adverse to quality associated with an NRC violation was not corrected as documented in the licensee's corrective action program. By removing fixing plates from the latest revision of the commercial grade dedication plan for Cascade 1.5 upper steel, without creating another plan, the licensee reversed a corrective action on which the NRC had based closure of a previous violation.

This is a Severity Level IV violation (Enforcement Policy 6.5.d)

B. Special Nuclear Material License No. 2010 requires, in part, that the licensee shall conduct authorized activities at the LES NEF in accordance with statements, representations, and conditions in the approved QAPD, dated April 9, 2004, and supplements thereto.

Section 3, Design Control, of the QAPD states, in part, that design changes are governed by control measures commensurate with those applied to the original design. Section 3 further states, in part, that changes from approved design inputs and reasons for the changes shall be identified, approved, documented and controlled.

Contrary to the above, changes made to critical characteristics and key attributes associated with the commercial grade dedication of components associated with Items Relied On for Safety (IROFS) 41 were not controlled commensurate with those applied to the original design, and the reasons for changes to critical characteristics and key attributes were not identified, approved, documented and controlled. The licensee removed material hardness as a critical characteristic without identifying, approving, documenting and controlling the reason for the change, as required by the QAPD. The minimum bolt pretension value for structural steel bolts was changed and the technical justification for this change failed to evaluate whether the reduced allowable preload would still conform to the minimum required bolt preload.

This is a Severity Level IV violation (Enforcement Policy 6.5.d)

UUSA Reply to Violation A

1. <u>The Reason For Violation A</u>

This violation is associated with the response to a previous NRC PI&R inspection issue for which the Commercial Grade Dedication Plan (CGDP) CGDP 041-0003 was revised (Rev. 1) to include the dedication of the Fixing Plates material to meet IROFS 41 requirements.

However, several months later, CGDP 041-0003 was revised again (Rev. 3) to address CR 2011-1617. During the revision the Commercial Graded Dedication (CGD) Engineer received the response to EG-TQ-2011-025. This TQ provided a justification to remove hardness testing of Fixing Plates. At the time of this revision, the assigned Commercial Grade Dedication (CGD) Engineer decided that it would be beneficial to separate the Fixing Plate verification from the rest of the upper steel verification. However, the CGD Engineer did not remember that further action was needed to generate the separate CGDP for Fixing Plates. This omission was a human performance error.

Human Performance Fundamentals Training for the CGD Engineer was verified as being current at the time of the event. The individual was aware that human performance tools for the error precursors were available but did not use them.

The cause of this violation was determined to be a failure to apply human performance tools while performing CGD activities.

2. <u>Corrective Steps That Have Been Taken And Results Achieved</u>

- 2.1 Dedicated the Fixing Plates in Cascade 1.5 using CGD Plan CGDP 041-0034 and the data collected in Work Plan 1001-CIVIL-823-059. Action completed 10/20/11. (CR 2011-3219 Action 1)
- 2.2 Provided training/coaching to the current CGD staff on the failure to generate the Fixing Plates CGDP as appropriate to prevent recurrences of this type of condition in the future. Action completed 10/20/11. (CR 2011-3219 Action 2)
- 2.3 Added a step in the CGD Procedure EG-3-2100-05 to state, "Prior to removal of Commercial Grade Items (CGI) from dedication plans an action tracking CR must be written to ensure that the CGI are captured in another dedication plan or if permanently removed, provide adequate technical justification as to why the need to dedicate the items are no longer required in the CGD Plan." Action Completed 12/15/11. (CR 2011-3219 Action 3)

3. <u>The Corrective Steps That Will Be Taken</u>

- 3.1 Implement a CGDP checklist for generation of new CGD plans or revision of existing CGD plans. (CR 2011-4066 Action 1)
- 3.2 Provide coaching to CGD Engineers regarding use of human performance tools when performing CGD activities. (CR 2011-4066 Action 2)

4. The Date When Full Compliance Will Be Achieved

Compliance was achieved upon completion of action 2.1 on 10/20/2011.

UUSA Reply to Violation B

1. The Reason For Violation B

Review of the circumstances associated with this violation found that ETC QA managed the Key Attributes (KA) process and did not recognize their outputs to be design information. The control of KA was not evaluated by UUSA Quality Assurance when auditing ETC's Design functions for qualifying ETC as the NQA-1 Design Engineer of Record for cascade components. Since ETC's Design organization was not controlling the KA reports, associated activities were not scoped into the UUSA Audit Checklist (reference Audit 2010-A-04-009).

In addition, UUSA Engineering was unaware that design inputs (KA) for defining basic component critical characteristics were being approved outside of their Design Control processes. During that period of time, there were three separate engineering entities (Core, CGD, and Project Design Engineering) interfacing with the ETC Design Agency.

Also, UUSA personnel had approved KA report revisions outside of any established process, yet did not identify the need for controlling quality-affecting documentation and approval thereof under a formal process.

Three apparent causes were identified for this violation. One cause was determined to be organizational misalignment – ETC KA Reports were not controlled by ETC Engineering. The ETC Key Attributes procedure, owned by ETC QA, does not direct the use of the design controls within those reference procedures for managing Key Attribute changes, nor did it specifically require detailed technical justifications to be included in the KA Reports to support substantive changes. The fact that the generation of Key Attributes records and changes thereto are the responsibility of ETC QA, and not that of ETC Engineering indicates that ETC likely did not at that time, consider the Key Attributes records as 'Design' inputs or outputs that required formal design control under ETC Engineering processes. In addition since ETCs Design organization was not controlling the KA reports, associated activities were not scoped into the USA Audit checklist (reference Audit 2010-A-009)

The second identified cause was determined to be inadequate procedures for controlling Key Attribute and Critical Characteristic design information. The fundamental error was in not recognizing the KA Reports as supporting design information, and as such, not evoking a formal process for review and acceptance.

The third identified cause was that standards and criteria for Owner Acceptance Reviews (OAR) Of KA Reports were not defined. The UUSA Owner Acceptance Reviews of KA report revisions (performed in August 2011 in response to CR 2011-2298) and the UUSA OARs of the ETC supplied Technical Justification documents were not adequate to identify missing or inadequate justifications for the KA changes. Since there are no specific criteria within the OAR procedure for reviews of KA reports and revisions thereto, the ETC documents were accepted based on individually derived independent reviewers' standards for completeness and accuracy. This resulted in insufficient technical rigor being applied to the KA OAR reviews.

Corrective Steps That Have Been Taken And Results Achieved

Revised UUSA Procedure EG-3-2100-05 requiring explanation of changes to CGD Plans. (CR-2011-3234, Action 2.) Complete

3. <u>The Corrective Steps That Will Be Taken</u>

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- 3.1 Track the formal transfer by ETC of Key Attribute controls from QA to Plant Design Organization. (CR-2011-4047- Action 1)
- 3.2 QA to add Control of Key Attributes Records to the Audit Checklist for Future ETC Design Audits. (CR 2011-4047 Action 2)
- 3.3. Revise UUSA Procedure EG-3-2100-02, OAR of Design Deliverables, to scope in ETC Key Attribute Records. (CR-2011-4047- Action 3)
- 3.4 Re-perform OARs on ETC KA Technical Justification documents (ETC4196237 and ETC4196072). Using the OAR comment resolution process, ensure that ETC technical justifications are revised to address shortfalls noted by NRC inspectors in IR 070-03103/2011009. (CR-2011-4047- Action 4)
- 3.5 Revise UUSA Procedure EG-3-2100-02, OAR of Design Deliverables, Section 5.2.4, to include reference to criteria to be used for performing acceptance reviews of Key Attribute Reports. As necessary, create a new Engineering procedure governing the Control of Key Attributes and Critical Characteristics. (CR-2011-4047- Action 5)
- 3.6 Conduct Engineering briefing with Project Engineering to reinforce management expectations for completeness and accuracy of technical justifications for products produced by UUSA Engineering and non-UUSA engineering entities. Review planned/completed changes to EG-3-2100-02 and EG-3-2100-05 related to technical justification adequacy. (CR-2011-4047-Action 6)
- 3.7 Re-perform the OARs for the TC21 KA Reports QSC/Kar/10/033 and QSC/Kar/10/012. (CR-2011-4047- Action 7)

4. The Date When Full Compliance Will Be Achieved

Full compliance will be achieved upon completion of items 3.3 thru 3.5 above.