

MAY 10 2018



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: Response to an Apparent Violation in NRC Inspection Report (70-31032018-002); EA-18-023

Reference: 1. Letter from M. Lesser (NRC) to S. Cowne (UUSA), U.S. Nuclear Regulatory Commission Inspection Report No. 70-3103/2018-002, dated April 12, 2018 – ML18102B168

Pursuant to Reference 1, UUSA herewith provides the response to the Notice of Violation. This reply addresses the violation as it relates to 10 CFR 70.62(d).

Pursuant to the provisions of 10 CFR 2.201(a) and the NRC's corresponding instructions specified in Reference 1, the Enclosure addresses 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 Wyatt Padgett, UUSA Manager of Licensing and Performance Assessment, at 575.394.5257.

Respectfully,

Stephen R. Cowne
Chief Nuclear Officer and Compliance Manager

Enclosure: Response to Apparent Violation 70-3103/2018-002; EA-18-023

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ENCLOSURE
RESPONSE TO APPARENT VIOLATION 70-3103/2018-002; EA-18-023

Background to the Violation

On October 31, 2017, UUSA submitted EN 53046 describing an event involving a heeled cylinder that was inadvertently introduced into the product filling process as a new/clean cylinder. The discrepancy resulted in the completion of the incorrect IROFS for moderator control prior to connecting the cylinder to the filling process. On November 2, 2017, UUSA submitted an update to EN 53046 to address the likelihood of a criticality event based on the liquid sample results for the UF₆ product in the affected cylinder. On December 27, 2017, UUSA submitted a written follow-up report for EN 53046 in accordance with 10 CFR 70.74 (ADAMS ML 17363A223), which was identified in NRC Inspection Report 70-3103/2017-005 as event report LER 2017002 for tracking purposes (ADAMS ML 18029A107). The written follow-up report included a detailed risk assessment of the event based on the approved ISA methodology of the facility. Items LER 2017002 and EN 53046 remained open in NRC Inspection Report 70-3103/2017-005 pending the NRC's review of final documentation submitted by the licensee. During the inspection period of January 1 to March 31, 2018, the inspectors performed an in-office review of the UUSA's cause evaluation and associated documents to identify the circumstances leading to the event and determine whether a violation of NRC requirements occurred and its significance.

The inspectors identified an Apparent Violation (AV) of 10 CFR 70.62(d), "Management Measures," for the licensee's failure to implement the appropriate IROFS controls for a credible high-consequence accident sequence included in the ISA Summary document of the facility, which resulted in the apparent failure to meet the performance requirements in 10 CFR 70.61(b).

UUSA performed an evaluation of estimated moderator amount based on liquid sample results for the affected cylinder. The following data provides reasonable assurance that there was no moderator in the cylinder in question. This data also supported exiting the anomalous condition:

- 1) Sample results showed normal for contaminants boron, technetium, and silica. Sample testing for purity showed acceptable results per ASTM C996: >99.5% UF₆.
- 2) Chemical analysis showed the assay of the cylinder was below 4.95 wt.%, therefore below the license limit.

With the documented cylinder results, UUSA treated the cylinder like any other filled product cylinder and released for processing.

UUSA Reply to the Violation

1. The Reason for the Violation

On September 7, 2017, UUSA Shift Operators filled a heeled 30B cylinder with enriched UF₆ product under the assumption that it was a new/clean cylinder. Prior to filling the 30B cylinder, operators failed to verify that the cylinder was a heeled cylinder and performed incorrect IROFS activities that corresponded to a new/clean cylinder. Specifically, operators performed a vapor pressure check required by IROFS16a for a new/clean cylinder, instead of a vapor pressure check and independent heel weight checks required by IROFS16e and IROFS16f for a heeled cylinder.

The reported condition was identified by UUSA during an extent of condition review for another heeled 30B cylinder that was incorrectly classified as new/clean, but was never filled with

product. For the 30B cylinder addressed in EN 53046, UUSA's causal analysis determined that the primary cause was lack of proper verification of IROFS information. Contributing causes were determined to be: (a) lack of communication of changes to the process orders for IROFS16a/16e/16f on the UUSA's official software for cylinder logistic operations (Systems, Applications, and Products or SAP), and (b) use of a non-controlled tool for verification of regulatory/IROFS information. Operators were supposed to rely on SAP to confirm the type of cylinder being processed, However, the operating procedure for the implementation of IROFS16a, IROFS16e, and IROFS16f, Procedure OP-3-0420-01, "Product System," did not include specific guidance for using SAP to validate cylinder information.

2. Corrective Steps That Have Been Taken and Results Achieved

UUSA documented the following corrective actions for the event in our Corrective Action Program:

- (a) Revisions of the product connect Procedure (OP-3-0420-01) and SAP desktop guide were made to provide more detailed guidance to positively identify the pedigree of the cylinder and require additional verification by qualified individuals. The Procedure and Desktop Guide were revised on December 21, 2017 to include desired changes.
- (b) Shift Operations conducted just-in- time training for all qualified operators of multiple methods of verification based on changes in SAP. This training was developed after discovery of the initial event which prompted the extent of condition. This action was completed in September 2017 via on-shift training using screenshot instructions that were developed by the SAP Subject Matter Expert (SME).
- (c) Logistics department provided additional training regarding IROFS-related SAP Purchase Order changes to applicable personnel. IROFS16a, IROFS16e, and IROFS16f familiarization training was provided to the Logistics team on December 19, 2017.
- (d) UUSA provided a read and sign training and followed up with an email with confirmation receipt from all Shift Operators to emphasize the use of a non-controlled tool for information only and not for official verification. This training was completed on November 24, 2017.
- (e) Shift Operations provided further SAP knowledge training to understand the "why" behind routine SAP transactions. Training support material generated covered SAP overview, definitions, cylinder and process order overviews, common transactions, determining cylinder pedigree, and errors and resolutions. This training was completed on March 9, 2018.

3. The Corrective Steps That Will Be Taken

None. UUSA has completed all corrective actions associated with this event.

4. The Date When Full Compliance Will Be Achieved

Full compliance was achieved on 11/02/2017 when it was determined that no other cylinder had the incorrect IROFS surveillances performed on them per the ACE for EV 120386. NCSI-17-0044 is the exiting of an Anomalous Condition walkthrough for NCS-ACCA-11022017. No issues were identified during the walkthrough, so the Anomalous Condition was exited on 11/2/2017 without any further action.