LES-22-089-NRC

7/7/2022

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

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

Subject: 10 CFR 70.50(c)(2), 30 Day Report

On June 7th, 2022, Louisiana Energy Services (LES), dba Urenco USA (UUSA), made Event Notification to the Nuclear Regulatory Commission (NRC) Operations Center in accordance with 10 CFR 70.50(b)(1). This notification reported an unplanned contamination event in the 3LS1 Autoclave. Event Notification 55932 details this occurrence.

As required by 10 CFR 70.50(c)(2), *Twenty-four Hour Reports* will be supplemented within 30 days with the information of 10 CFR 70.50(c)(1), Enclosure 1 provides the written follow-up report within 30 days of the initial report.

Should there be any questions concerning this submittal, please contact Chris Schwarz, Licensing and Performance Assessment Manager, at 575-394-5783.

Respectfully,

Wyatt Padgett
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Date: 2022.07.07 15:54:19 -06'00'

Wyatt Padgett
Compliance Manager

Enclosure: 10 CFR 70.50(c)(2) 30 Day Report

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Enclosure 1

10 CFR 70.50 (c)(2) 30 Day Report

10 CFR 70.50(c)(1)

(i) Caller's name, position title, and call-back telephone number;

- The individual who facilitated Event Notification (EN) 55932 was Barry Love, Licensing Specialist. The call-back telephone number for Barry Love is 575-394-4482.

(ii) Date, time, and exact location of the event;

- The NRC Event Notification was submitted on June 8th, 2022 at 1203 ET. The contamination event reported in EN 55932 was identified at approximately 0003 MST on June 7th, 2022. The location of this event was at Urenco USA in Eunice, New Mexico (Lea County). The affected area was within the UUSA facility in the SBM 1003 Handling Area Autoclave #3 (3LS1). This event was reported based on an unplanned contamination event that requires access to the contaminated area, by workers or the public, to be restricted for more than 24 hours by imposing additional radiological controls or by prohibiting entry into the area.

(iii) Description of the event:

- On June 7, 2022, while performing a disconnect on the 3LS1 autoclave, an Operator noticed an white/yellowish film on the hex nut of the manifold and the upper portion of the cylinder valve. The Operator surveyed the film and found 4,000 to 6,000 dpm alpha and beta contamination.

- The 3LS1 autoclave was posted as a Contamination Area at 1:52 AM on June 7th. Surveys of the cylinder and manifold were 1,500 dpm alpha and 3,000 dpm beta/gamma after the disconnect. Decontamination efforts continued throughout the day. The area was still posted as a contamination area on the morning of June 8th. UUSA is reporting this event per 10 CFR 70.50.(b)(1).

(A) Radiological or chemical hazards involved, including isotopes, quantities, and chemical and physical form of any material released;

- The radiological hazard was confined to #3 Autoclave. The spill has been cleaned up and decontaminated.

- There were no chemical hazards involved and no release occurred from the site.

(B) Actual or potential health and safety consequences to the workers, the public, and the environment, including relevant chemical and radiation data for actual personnel exposures to radiation or radioactive materials or hazardous chemicals produced from licensed materials (e.g., level of radiation exposure, concentration of chemicals, and duration of exposure);

- The Operators were wearing Portable Air Monitors during the opening disconnect and decontamination of the autoclave. There were no elevated levels of airborne contamination detected.

- The autoclave is monitored for HF during the disconnect, no elevated HF levels were detected during the disconnect.

- There were no actual or potential health or safety consequences to workers, the public, or the environment. No unexpected exposure to radioactive materials or hazardous chemicals produced from licensed materials occurred. During the time period in which the contamination was found inside the autoclave, no personnel contamination events were reported, no airborne alarms were received and no excess radiation exposures occurred.

(C) The sequence of occurrences leading to the event, including degradation or failure of structures, systems, equipment, components, and activities of personnel relied on to prevent potential accidents or mitigate their consequences; and

- Autoclave #3 was connected and then placed into the heating and sampling sequence.

- During the sampling process, in which the entire autoclave is tilted, the manifold shifted which in turn loosened the connection between the cylinder and manifold and allowed a small amount of UF6 to leak past the connection. This leak left a residue on the cylinder valve and manifold connection nut. This residue was discovered during the autoclave disconnection procedure. The Senior Operator was contacted prior to opening the autoclave door and additional attention was focused on the HF readings from inside the autoclave.

- The autoclave was promptly roped off and signage posted. All personnel near the autoclave were wearing portable air samplers and the operators that performed the disconnect supplied bioassay samples after the event. The air samples did not have elevated readings and the bioassay results did not indicate uranium uptake. The operators wore appropriate PPE and readings in the area were taken and found to be less than background. The autoclave and affected cylinder were decontaminated and released.

(D) Whether the remaining structures, systems, equipment, components, and activities of personnel relied on to prevent potential accidents or mitigate their consequences are available and reliable to perform their function;

- The structures, systems, equipment, components, and activities in the unaffected areas remain available and reliable to perform their function. Air monitoring and contamination monitoring were available during the spill and the decontamination. No personnel were contaminated and no contamination was released into the environment.

(iv) External conditions affecting the event;

- No external conditions affected this event.

(v) Additional actions taken by the licensee in response to the event;

- The condition has been entered into UUSA's accredited Corrective Action Program as EV 151830. A causal analysis is being conducted in accordance with UUSA's accredited Corrective Action Program.

(vi) Status of the event (e.g., whether the event is on-going or was terminated);

- The event is not considered to be on-going as the spill has been cleaned up and postings removed.

(vii) Current and planned site status, including any declared emergency class;

- No change in site emergency status occurred or will occur in response to this event.

(viii) Notifications, related to the event, that were made or are planned to any local, State, or other Federal agencies;

- No notifications to local, State, or Federal agencies occurred or are planned for this event.

(ix) Status of any press releases, related to the event, that were made or are planned.

- No press releases occurred or are planned for this event.

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(ii) The probable cause of the event, including all factors that contributed to the event and the manufacturer and model number (if applicable) of any equipment that failed or malfunctioned;

- The probable cause of the event is that excess material was left in the manifold after the sampling sequence. The heating and cooling cycles of the autoclave can cause a loosening of the connection between the manifold and cylinder valve. This cooling cycle caused the connection to be loose enough that the excess material present in the manifold leaked out and around the connection.

(iii) Corrective actions taken or planned to prevent occurrence of similar or identical events in the future and the results of any evaluations or assessments; and

- Immediate compensatory actions were taken to:
  - Stopping any current autoclave connections
  - Performance of a visual inspection of autoclaves in sequence every 3 hour using the viewport, looking for signs of UF6 leakage
  - Control Room Operator set a screen dedicated to monitoring the pressure and temperature of autoclaves in sequence monitoring for abnormal trends
- Decontamination occurred for the cylinder and all accessible portions of the autoclave. After decontamination occurred, the autoclave fans were

run in an attempt to get all loose contamination out of the non-accessible areas and the interior of the autoclave was decontaminated once more.
- The affected cylinder valve will be pressure tested.
- The affected manifold has been decontaminated and will be cleaned and inspected prior to returning to service.
- UUSA is currently tracking this issue as EV 151830 in the Corrective Action Program.

(iv) For licensees subject to Subpart H of this part, whether the event was identified and evaluated in the Integrated Safety Analysis.

- 51-2400533-02-LES, Blending and Liquid Sampling HAZOP evaluated an event in which a worker was exposed to a chemical consequence by opening the door of an autoclave that experienced a product cylinder or manifold leak. This event was determined to not be credible.