

SAFETY EVALUATION REPORT

DOCKET NO.: 70-3103
LICENSE: SNM-2010
LICENSEE: Louisiana Energy Services, LLC
SUBJECT: REQUEST FOR EXEMPTION FROM 24-HOUR REPORTING
REQUIREMENT OF 10 CFR 70.50(b)(1)

BACKGROUND

In a letter dated July 6, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23188A093), Louisiana Energy Services (LES), dba URENCO USA (UUSA) submitted a request for exemption from the reporting requirement for unplanned contamination events in Title 10 of the *Code of Federal Regulations* (10 CFR), Paragraph 70.50(b)(1). By email dated August 2, 2023 (ML23220A340), the U.S. Nuclear Regulatory Commission (NRC) staff accepted the request. In a letter dated September 25, 2023 (ML23263A265), the NRC staff provided UUSA requests for additional information (RAIs). By letter dated October 25, 2023 (ML23298A145), UUSA responded to the RAIs.

DISCUSSION

Section 10 CFR 70.50(b)(1)(i) provides that a licensee shall notify the NRC within 24 hours after the discovery of 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. In its submittal, UUSA requested an exemption from this requirement in 10 CFR 70.50(b)(1) for situations due to an unplanned contamination event within the UUSA Radioactive Materials Areas (RMAs), located within buildings that require worker access be restricted for more than 24 hours by the imposition of additional radiological controls or by prohibiting entry into the area.

UUSA is not seeking an exemption that would alter reporting requirements in 10 CFR 70.50(b)(1) for situations due to an unplanned contamination event outside of the established RMA of any building. The RMAs are designed to safely contain and control radioactive releases that may result from normal operations or maintenance activities. The design protects the health and safety of workers, public, and the environment. UUSA will continue to notify the NRC of an unplanned contamination event outside of established RMAs located within buildings that require worker access be restricted for more than 24 hours by imposing additional radiological controls or by prohibiting entry into the area. This includes non-controlled areas such as adjacent hallways, rooms, rooftops, and outdoor areas. The exemption would not preclude reporting unplanned contamination events by other NRC requirements such as 10 CFR 20.2202 "Notification of incidents", 10 CFR 20.2203 "Reports of exposures, radiation levels, and concentrations of radioactive material exceeding the constraints or limits," and Appendix A to Part 70 "Reportable Safety Events" that result in a failure to meet the performance criteria of 10 CFR 70.61 (i.e., high or intermediate consequence event).

UUSA provided the following technical justification:

1. The UUSA RMAs are clearly posted and reside inside buildings that are within the fenced enclosure of the site designated as the UUSA controlled access area (CAA) which provides restricted access. Access to the UUSA CAA is restricted to individuals that have completed site-specific training requirements or to individuals that are formally escorted. At no time can members of the public gain access to the UUSA CAA without proper authorization by being escorted or trained.
2. UUSA maintains and implements an effective Radiation Protection Program to keep worker exposures As Low as Reasonably Achievable (ALARA). Routine control adjustments to minimize exposures include modifications to protective clothing, adding respiratory protective equipment or restricting access to portions of an RMA and are anticipated, allowed, and at times prudent.
3. UUSA provides sufficient Radiation Protection Task Qualified Individuals (RPTQI) or Operators on each work shift to respond to radiological conditions in an RMA to ensure that appropriate and timely actions are taken. The RPTQIs or Operators are trained in contamination-control procedures and techniques required for responding to a contamination event and are readily available to respond as needed.
4. The RMAs located within buildings are designed to control contamination in the process and enrichment areas at the facility where uranic solutions or uranium hexafluoride is routinely handled or processed. These controls include engineered features such as ventilated areas designed to provide air flow from areas of lesser potential contamination to areas of higher potential contamination and curbs or containment areas to contain potential contaminated liquid spills. Activities and process equipment that could potentially release uranium hexafluoride are designed with ventilated containment enclosures, hoods, dust capturing exhaust ports, local exhaust systems and other devices to minimize the release in work areas.
5. Appropriate radiation surveys are performed by qualified personnel during or after an unplanned contamination event as necessary to assess radiological conditions and provide the appropriate response. The type of survey is determined by Radiation Protection Program staff as described in accordance with approved procedures. Survey results are compared to specified action guides and if contamination levels in excess of action levels are found, appropriate actions are taken, and the affected area is decontaminated in a safe and timely manner.
6. Formal nuclear safety training is required for unescorted workers entering the RMAs. Visitors in the RMAs are escorted by trained personnel. The training includes information about radiation and radioactive materials, precautions or procedures to minimize exposure, the purposes and functions of protective devices employed; and their responsibility to report promptly conditions which may lead to or cause a violation of NRC regulations and UUSA licenses or unnecessary exposure to radiation and/or radioactive material. The training also includes the appropriate response to warnings made in the event of any unusual occurrence or malfunction that may involve exposure to radiation and/or radioactive material and nuclear criticality safety principles.

A significant amount of UUSA resources are required for timely evaluation and preparing the initial event notification to the NRC per 10 CFR 70.50(b)(1) and follow-up written reports per 10 CFR 70.50(c)(2), including 65 hours per single unplanned contamination event inside an established controlled area to perform the initial evaluation, initial investigation, generate the initial notification, and generate the follow-up reports. The frequency of these events is on average from 2 to 4 times per year.

Should the exemption be granted by the NRC, UUSA stated that unplanned contamination events are documented in the UUSA accredited Corrective Action Program. UUSA noted that the NRC inspectors review and reference the items in the corrective action program during NRC inspections and are available upon request. The results of these inspections are documented in quarterly inspection reports and publicly available in ADAMS.

Regulatory Requirements

Section 70.17 of 10 CFR states that the Commission may, upon application of any interested person or upon its own initiative, grant such exemptions from the requirements of the regulations in this part as it determines are authorized by law, and will not endanger life or property or the common defense and security, and are otherwise in the public interest.

The exemption is otherwise authorized by law

The NRC staff has determined that granting the licensee's proposed exemption will not result in a violation of the Atomic Energy Act of 1954, as amended, or other laws and therefore is otherwise authorized by law.

The exemption will not endanger life or property or the common defense and security

During its independent evaluation of the exemption, the NRC staff considered the justification provided by the licensee and reviewed the requirements in the radiation safety program required under the license. The radiation safety program requires: (a) written radiation protection procedures and radiation work permits, (b) the use of ventilation systems, containment systems, and respirators to control exposure to airborne radioactive material, (c) the use of protective clothing to prevent the spread of surface contamination, (d) the use of surveys and monitoring programs to document contamination levels and exposures to workers, and (e) identification of items relied on for safety and management measures to maintain those items available and reliable. In addition, the NRC staff determined that the licensee has personnel adequately trained and qualified in contamination control who would be readily available, as needed. The NRC staff also determined that the licensee has readily available equipment and facilities to control contamination.

The proposed exemption would be limited to areas controlled for contamination where multiple controls are in place to limit access to qualified individuals. The NRC staff determined that additional limitations were necessary to ensure protection of the public health and safety. Specifically, the NRC staff determined that exemption should be limited to contamination events where the release of radioactive material is contained to access restricted RMAs and where no contamination has spread outside the controlled area. Furthermore, the NRC determined that, to ensure access to operational data and information related to contaminated events, the exemption should be limited to contamination events that are documented in the licensee's

Corrective Action Program. Accordingly, the exemption is limited to the following safety condition:

- 40 Notwithstanding the requirements of 10 CFR 70.50(b)(1), as requested in the license amendment request dated July 6, 2023 (ML23188A093), the licensee is exempted from the requirement to report unplanned contamination events when the following conditions are met:
1. The event occurs in a restricted area in a building which is maintained inaccessible to the public by multiple access controls,
 2. The area was controlled as a Radioactive Materials Area within a building before the event occurred, the release of radioactive material is contained within the Radioactive Materials Area, and no contamination has spread outside the Radioactive Materials Area,
 3. Radiation Protection Task Qualified Individuals/Operators trained in contamination control are readily available,
 4. Equipment and facilities that may be needed for contamination control are readily available, and
 5. The otherwise reportable unplanned contamination event is documented in the licensee's Corrective Action Program.

Based on the limited scope of the exemption, and the access and contamination controls, training, radiation surveys and other ALARA measures described in the application, the NRC staff has determined that granting the exemption as stated above will not endanger life or property. In addition, the NRC staff has determined that the exemption does not involve information or activities that could impact the common defense and security.

The exemption is otherwise in the public interest

The NRC staff has determined that granting this exemption request is otherwise in the public interest because it promotes regulatory efficiency. The exemption relieves UUSA from a reporting requirement for unplanned contamination events that do not present a risk to public health and safety given the site-specific conditions and programs described above. Specifically, the exemption would relieve the licensee from generating reports of contamination events in controlled areas where the release of radioactive material is contained to the RMA and no contamination has spread outside the RMA. The RMAs are designed to safely contain and control radioactive releases that may result from normal operations or maintenance activities. Granting the exemption will allow the licensee to focus the resources required to fulfill the reporting requirement on other activities. In addition, it would relieve the NRC staff from receiving and processing reports which do not present a risk to public health and safety.

ENVIRONMENTAL REVIEW

The NRC approval of this exemption request is categorically excluded under 10 CFR 51.22(c)(25)(vi)(B). The NRC staff has determined that the exemption involves reporting requirements and satisfies the following criteria:

- a. There is no significant hazards consideration.
- b. There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite.
- c. There is no significant increase in individual or cumulative public or occupational radiation exposure.
- d. There is no significant construction impact, and
- e. There is no significant increase in the potential for, or consequences from, radiological accidents.

There is no significant hazards consideration because the proposed exemption involves contamination events in areas controlled for contamination. There is no significant change in effluents or public radiation exposure because the exemption is limited to events where contamination has not spread outside of controlled areas. There is no significant increase in occupational radiation exposure because the licensee will continue to monitor and control worker exposures. There is no significant construction impact because the exemption does not relate to construction. Nor is there any significant increase in the potential for or consequences from radiological accidents because the exemption will not alter any of the assumptions or limits in the facility licensee's safety analysis. Therefore, in accordance with 10 CFR 51.22(c)(25), neither an environment assessment nor an environmental impact statement need be prepared in connection with the approval of this exemption request.

CONCLUSION

Based on its review above, the NRC staff concludes that the exemption is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest. Therefore, the NRC staff finds that UUSA's request meets NRC exemption requirements.

PRINCIPAL CONTRIBUTOR:

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