LES-23-044-NRC

July 6, 2023

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

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

Subject: Request for Exemption from 24-Hour Reporting Requirement of 10 CFR 70.50(b)(1) - LAR 23-04

Reference: 1). Letter from Nima Ashkeboussi, (Nuclear Energy Institute), to Aaron Szabo (NRC), "Industry Comments on the Information Collection for Domestic Licensing of Special Nuclear Material (Docket ID: NRC-2017-0048)", October 27, 2017 (Accession ML17304B308)

In accordance with 10 CFR 70.17, Louisiana Energy Services (LES), dba URENCO USA (UUSA) is requesting an exemption from the 24-hour reporting requirement in 10 CFR 70.50(b)(1) for situations that require the imposition of additional radiological controls for greater than 24 hours due to an unplanned contamination event inside an established controlled area.

The attachment to this letter provides UUSA's justification and evaluation criteria for the exemption pursuant to 10 CFR 70.17.

If you have any questions, please contact Chris Schwarz, Licensing and Performance Assessment Manager at 575-394-5783.

Respectfully,

Digitally signed by P. Paul Lorskulsint
Date: 2023.07.06 14:57:31 -06'00'

Paul Lorskulsint
Chief Nuclear Officer

Attachment: Technical Justification for 10 CFR 70.50(b)(1) Exemption Request

LES-23-044-NRC

CC:

Samantha Lav, NMSS, Chief Fuel Facility Licensing Branch
U.S. Nuclear Regulatory Commission
samantha.lav@nrc.gov

Jonathan Rowley, Project Manager
U.S. Nuclear Regulatory Commission
Jonathan.Rowley@nrc.gov

Robert Mathis Projects Branch 1, Chief (Acting)
U.S. Nuclear Regulatory Commission
Robert.Mathis@nrc.gov

Tim Sippel, Region II, Fuel Facility Inspector
U.S. Nuclear Regulatory Commission
Timothy.Sippel@nrc.gov

Attachment

Technical Justification for 10 CFR 70.50(b)(1) Exemption Request

Exemption Request

Louisiana Energy Services (LES), dba URENCO USA (UUSA) is the holder of NRC License SNM 2010 for the enrichment facility in Eunice, NM. UUSA is requesting an exemption from the 24-hour reporting 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 imposing additional radiological controls or by prohibiting entry into the area.

It should be noted that UUSA is not seeking an exemption that would alter the reporting requirements of 10 CFR 70.50(b)(1) for situations due to unplanned contamination events outside of the established RMA of any building. 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 or rooms, rooftops and outdoor areas. The exemption would not preclude reporting of 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).

Basis for Exemption

Licensed activities at the UUSA fuel enrichment facility include the establishment of areas identified as Radiological Controlled Areas or Contaminated Areas within the UUSA RMA described in the NRC approved license. The function of the RMAs located within buildings is to control process and enrichment areas where uranic solutions or uranium hexafluoride is routinely handled or processed. These areas are designed to safely contain and control releases of radioactive material that may occur as the result of operations or maintenance activities. Inherent in the design of these areas is the continued protection of the health and safety of occupational workers, members of the public and the environment.

As minor contamination in established RMAs within buildings can be anticipated, established radiological control methods are utilized to minimize worker exposures, which include engineered controls, ventilation, access controls, protective clothing, respiratory protection, routine contamination surveys, airborne monitoring, RMA exit monitoring, and if necessary, area access restrictions. Adjustments to controls are made as necessary, depending on airborne or contamination levels encountered during normal operations (i.e. production and planned maintenance). and abnormal conditions.

Technical Justification

UUSA currently implements the following six criteria and provides a technical justification describing how each criterion will be met.

1) Established and posted RMAs located within buildings that may require additional controls, reside within the UUSA licensed Controlled Access Area (CAA) which is not accessible to the public.

   The UUSA RMAs are clearly posted and reside inside buildings that are within the fenced enclosure of the site designated as the UUSA CAA which provides restricted access. The UUSA CAA is maintained in accordance with applicable NRC security requirements of 10 CFR 73 and the site Physical Security Plan. The UUSA CAA is also controlled as a Restricted Area as defined in 10 CFR 20.1003. 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. It should also be noted that access to the subject buildings are further controlled under 10 CFR 95 as classified areas in accordance with the UUSA Standard Practices Procedure Plan (SPPP) for the Protection of Classified Matter.

2) Controls are imposed as necessary to keep radiation exposures and releases as low as reasonably achievable.

   UUSA maintains and implements an effective Radiation Protection Program to keep worker exposures As Low as Reasonably Achievable (ALARA). These radiation protection principles are necessary to implement NRC ALARA requirements in 10 CFR 20.1101 *"Radiation protection programs"* and include engineering and other exposure control practices such as action levels to protect workers described in approved standard operating procedures. These principles are an integral part of the overall UUSA Radiation Protection Program that is routinely inspected by the NRC. 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. Operations are conducted in accordance with approved procedures and Radiation Work Permits for routine work or access to RMA s that provide flexibility for addressing controls in response to changing radiological conditions.

3) Radiation protection personnel are trained and qualified in contamination control and are readily available.

   UUSA provides sufficient Radiation Protection Task Qualified Individuals (RPTQI) or Operators on each work shift to respond to radiological conditions in an RMA to and 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.

   The RPTQIs or Operators must successfully complete a rigorous training and qualification program prior to performing unsupervised activities and complete periodic refresher training to continue unsupervised work. In addition, UUSA employs a staff of Radiation Protection Technicians (RPTs) trained in accordance with ANSI 3.1

"Selection, Qualification, and Training of Personnel for Nuclear Power Plants" and Regulatory Guide 8.24 "Health Physics Surveys During Enriched Uranium-235 Processing and Fuel Fabrication." The Chemistry and Radiation Protection Manager has the responsibility for implementation of the Radiation Protection program. This position ensures proper contamination control. These duties include the training of personnel in use of equipment, control of radiation exposure of personnel, and determination of the radiological status of the facility.

4) Equipment and facilities that may be needed for contamination control are readily available.

   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. The air and any gasses from uranium hexafluoride processes areas are exhausted as appropriate through filter media prior to being recirculated back into work areas or exhausted to the environment. Routine engineered and facility control adjustments to minimize exposures and the extent of a release include shutting down equipment, adding localized exhaust ventilation and closing or reducing containment hood openings.

   Activities and process equipment that could potentially release uranic solutions are designed with curbs or containment areas to contain potential contaminated liquid spills. These areas are periodically monitored. Any liquid from these areas are promptly roped off and signage posted. Activities to cleanup or retain the spill are planned as appropriate and initiated.

   Activities and process equipment that could potentially release uranium hexafluoride are similarly recessed or demarcated and are actively monitored when work activities such as connects / disconnects or manipulations are being performed.

5) Radiation and contamination surveys of unplanned contamination events inside of RMAs located within buildings are performed and are available for NRC inspection upon request.

   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. Survey records for contamination events are documented pursuant to 10 CFR 20.2103 and are available for review.

6) Unescorted workers in the UUSA RMAs are trained on methods to reduce radiation exposures including contamination controls and response actions for abnormal or upset conditions.

   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. Training policy requires that workers must complete nuclear safety training prior to unescorted access within RMAs. The training is typically provided using computer-based training but may be performed by authorized instructors. Previously trained workers who are allowed unescorted access into RMAs are retrained at least every two years. The effectiveness of the training program is evaluated by either initial training exam or re-training exam.

10 CFR 70.17 Evaluation Criteria

Pursuant to 10 CFR 70.17(a), the NRC may grant an exemption from the requirements of 10 CFR Part 70 if the staff determines 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.

UUSA has determined that granting the proposed exemption will not result in a violation of the Atomic Energy Act of 1954, as amended, other laws, or the Commission's regulations. Therefore, the requested exemption is authorized by law.

UUSA has also determined that an exemption from the requirement to report within 24 hours a situation due to an unplanned contamination event inside an RMA within a building that requires worker access to the contaminated area to be restricted for more than 24 hours by imposing additional radiological controls or by prohibiting entry into the area will not endanger life or property or the common defense and security. As described above, UUSA has established RMAs within buildings that are designed to safely contain releases of radioactive material that may occur as a result of operations or maintenance activities that are within a restricted area with no unescorted public access. In addition, UUSA uses trained and qualified radiation protection personnel or operators who have appropriate equipment readily available. And while the exemption request would eliminate the 24-hour reporting requirement for unplanned contamination events inside established RMAs within buildings, UUSA will continue to report situations due to an unplanned contamination event outside of established RMAs within buildings, maintain records of these events, and would provide this information to NRC for inspection upon request.

The elimination of the 24-hour reporting requirement also does not involve information or activities that could potentially impact the common defense and security of the United States. The requested exemption is administrative in nature and would reduce the number of licensee actions triggered by events that imposes additional radiological controls or by prohibiting entry

into an area. Based on its review of this information, UUSA concludes that granting this exemption request would not endanger life or property or the common defense and security.

Finally, granting this exemption request is otherwise in the public interest because it promotes regulatory efficiency by relieving UUSA from a reporting requirement that is of low safety significance given the site-specific conditions, design of the UUSA facility itself and programs described above. The exemption would allow the use of UUSA limited resources to be focused on other activities of higher significance or implications at UUSA. The exemption would relieve UUSA from generating initial notification reports within 24 hours and written follow-up reports within 30 days of certain contamination events and would also relieve the NRC staff from needing to process these reports, thereby allowing resources to be focused on other activities of higher significance or consequence. The specific events noted in this exemption request are located within established RMAs inside of buildings and pose no public health and safety or environmental risk.

Contamination events are documented accordance with UUSA's accredited Corrective Action Program and are available for NRC inspection. NRC inspectors have full access to the UUSA corrective action program where such events are documented and inspectors are able to review the items in the corrective action program during each of their inspections including specific inspection of the UUSA radiological program. The results of these inspections are documented in NRC inspection reports which are publicly available in the Agency Document Administration and Management System (ADAMS).

UUSA may commit, on average, in excess of 24 hours in generating the initial notification. Estimates include the time and resources required to evaluate unplanned contamination events to determine reportability in a timely fashion per 10 CFR 70.50(b)(1). This typically involves gathering a team of technicians, maintenance staff, engineers, Licensing Specialist and senior level managers. If the event is determined to be reportable, the team develops, reviews and approves the initial 24 hour event report. UUSA Licensing personnel then notifies the NRC Operations Center, NRC Regional staff, State and Local authorities.

UUSA then perform additional detailed event investigations by senior level managers and staff that would not otherwise occur had the event not been reported and then plan and develop corrective actions with the accredited Corrective Action Program with management reviews of the planned actions. In addition, operations, management, licensing and clerical support is needed to develop, review, approve and document the written 30-day follow-up report. Reporting estimates are consistent with those previously provided by the Nuclear Energy Institute (NEI) on behalf of its fuel cycle facility members (Reference 1).

In addition, unplanned contamination events are also routinely evaluated by UUSA that may not meet the 10 CFR 70.50(b)(1) reporting criteria. Based on the circumstances, this also typically involves gathering a team of staff and senior level managers per the UUSA notification and event classification procedure. The frequency of evaluations is estimated to range, on average, between one (1) and four (4) times per year since 2016.

Finally, it should be noted that the nuclear power reactors, research and test reactors, and independent spent fuel storage installations are not subject to similar reporting requirements for unplanned contamination events. There are approximately 93 operating nuclear power reactors, 20 power reactors undergoing decommissioning, 30 research and test reactors and 24 site-specific and standalone independent spent fuel storage installations who are not subject to a

similar reporting requirement for unplanned contamination events in their respective licensing chapters of 10 CFR.

UUSA believes granting an exemption request to a small number of facilities processing unirradiated uranium is consistent with NRC's principles of good regulation and is otherwise in the public interest because it provides clarity, reliability and regulatory reporting consistency to licensees with similar radiological contamination control programs.

Conclusion:

Based on the above, UUSA has concluded that the activity to be authorized by the issuance of the proposed exemption is in compliance with the law and will not endanger life or property or the common defense or security. UUSA also concludes that granting the exemption is in the public interest.

Accordingly, UUSA requests an exemption from the 24-hour reporting requirement in 10 CFR 70.50(b)(1) for situations due to an unplanned contamination event inside established RMAs located within buildings that requires worker access to the contaminated area to be restricted for more than 24 hours by imposing additional radiological controls or by prohibiting entry into the area.

UUSA proposes new License Condition 40 be issued to reflect the exemption from reporting as follows:

40 Notwithstanding the requirements of 10 CFR 70.50(b)(1), 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 RMA within a building before the event occurred, the release of radioactive material is under control, and no contamination has spread outside the area,
3. Radiation Protection Task Qualified Individuals (RPTQI) / 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.