

SAFETY EVALUATION REPORT

DOCKET NO: 40-3392
LICENSE NO: SUB-526
LICENSEE: Honeywell Metropolis Works, Metropolis, Illinois
SUBJECT: REQUEST FOR EXEMPTION FROM 24-HOUR REPORTING
REQUIREMENT - ENTERPRISE PROJECT IDENTIFIER (EPID)
L-2021-LLA-0081

BACKGROUND

In a letter dated April 30, 2021, Honeywell International (Honeywell) 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 40.60(b)(1). The letter is available in the Agencywide Documents Access and Management System (ADAMS) at Accession No. ML21126A182. By electronic communication dated May 21, 2021, the U.S. Nuclear Regulatory Commission (NRC) staff accepted Honeywell's request (ADAMS Accession No. ML21144A026).

DISCUSSION

The application requested an exemption from the 24-hour reporting requirement in 10 CFR 40.60(b)(1). The relevant provisions of 10 CFR 40.60(b)(1) state 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.

The exemption would not alter reporting requirements for unplanned contamination events through 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." The licensee would continue to notify the NRC of an unplanned contamination event outside the restricted area (RA) that requires worker access to an area to be restricted for more than 24 hours by imposing additional radiological controls or by prohibiting entry into the area.

The licensee provided the following technical justification:

1. The established RA is clearly posted and resides within a fenced enclosure of the site which provides for restricted access. Access to the RA is restricted to individuals that have completed site-specific training requirements or individuals that are formally escorted. At no time can members of the public access the RA without being escorted or trained.
2. The licensee 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 the RA as needed.

3. During normal operations the licensee provides sufficient health physics technician (HPT) staffing on each production shift to support and respond to radiological conditions in the RA. The HPT staff is trained in contamination control procedures and techniques required for responding to a contamination event, and are readily available to respond as needed. The HPTs must successfully complete a rigorous training and qualification program prior to performing unsupervised activities. In addition, the licensee employs a health physics supervisor to provide guidance and technical radiation safety expertise to the HPTs.
4. The RA is designed to control contamination in process areas at the facility where unencapsulated uranium is routinely handled. These controls include engineered features such as ventilated areas designed to provide air flow to minimize potential contamination. Activities and processing equipment that could potentially generate airborne uranium are designed with ventilated containment enclosures, hoods, dust capturing exhaust ports, local exhaust systems and other devices to minimize the release of uranium in work areas. The air and gasses from the UF₆ production processes are exhausted as appropriate through baghouses and scrubbers, and then 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.
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. Survey results are compared to specified action guides, and when 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. Formal nuclear safety training is required for unescorted workers entering the RA. Visitors to the RA 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 to the licensee any condition which may lead to or cause a violation of NRC regulations and 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 materials. The training policy requires that workers must complete nuclear safety training prior to unescorted access in the RA. The training is typically provided using computer-based training but may be performed by authorized instructors. The effectiveness of the training program is evaluated by an initial training exam. Training is maintained via monthly safety meetings designated as B-Council meetings. These meetings include special radioactive safety training each month.

The licensee estimated the resource expenditures associated with timely evaluation and reporting of an unplanned contamination event, develop the event report write-up, and follow-up reports average to about \$42,000 per event report. The licensee estimates the frequency of

contamination events within the RA that meet the NRC criteria of a potentially reportable unplanned contamination event to be 15 events per year, for a total cost of such reporting to be \$630,000 each year.

With regard to the level of transparency to the public of unplanned contamination events should the exemption be granted by the NRC, the licensee stated in its April 30, 2021 letter that it will commit to performing radiation surveys of unplanned contamination events in the RA, and make these available for NRC staff inspection upon request. In its letter, the licensee also provided draft license condition language to require documenting the unplanned contamination events in its corrective action program (CAP). The CAP is reviewed by the NRC staff during inspections. The results of the NRC staff inspections are documented and publicly available in ADAMS.

Regulatory requirements

Section 40.14(a) 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 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 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.

While 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 under control and no contamination has spread outside the RA. Furthermore, the NRC determined that, in order 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 CAP. Accordingly, the exemption is limited to the following safety conditions:

38. Notwithstanding the requirements of 10 CFR 40.60(b)(1), the licensee is granted an exemption from the requirement to report unplanned contamination events when the following conditions are met:
1. The event occurs in the restricted area in a building which is maintained inaccessible to the public by multiple access controls,
 2. The area was controlled for contamination before the event occurred, the release of radioactive material is under control, and no contamination has spread outside the area,
 3. Radiation safety personnel 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 the licensee 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 under control and no contamination has spread outside the controlled area. 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 to 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. The NRC staff recommends approving the exemption.

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