



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

March 11, 2019

Col Paul Gourley, Chair
USAF Radioisotope Committee
AFMSA/SG3PB
7700 Arlington Blvd., Suite 5151
Falls Church, VA 22042

SUBJECT: REVIEW OF UNRESOLVED ITEM FROM NRC INSPECTION
REPORT 030-28641/2017-006

Dear Colonel Gourley:

This letter refers to the Unresolved Item that was identified by the U.S. Nuclear Regulatory Commission (NRC) during the October 31-November 2, 2017, biennial inspection as documented in NRC Inspection Report 030-28641/2017-006 dated December 12, 2017 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML17341B626). The Unresolved Item involves a potential discrepancy between your use of possession-only licenses and the NRC's Timeliness Rule requirements for decommissioning. An Unresolved Item is an issue about which more information is required to determine if it is acceptable, or if it constitutes a deviation or violation of NRC requirements.

The Region IV staff consulted with the NRC's Office of Nuclear Material Safety and Safeguards to determine the actions necessary to satisfactorily close the Unresolved Item. An evaluation of the Unresolved Item is provided in the enclosure to this letter. In summary, you must implement current NRC guidance and regulatory requirements. In particular, any possession-only permits issued under your Master Material License should have expiration dates of two years or less to comply with current NRC guidance; otherwise, alternate decommissioning schedules should be submitted to the NRC to comply with Timeliness Rule requirements.

As noted in the enclosure to this letter, the NRC concluded that the Air Force's issuance of possession-only licenses with expiration dates greater than two years was not a violation of the Timeliness Rule requirements based on the specifics of the six permits in question. However, Unresolved Item 030-28641/1706-01 will remain open until the NRC has reviewed your corrective actions, including program changes, to ensure compliance with current NRC guidance and regulatory requirements.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter, its enclosure, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy or proprietary information so that it can be made available to the Public without redaction.

If you have any questions concerning this matter, please contact Dr. Robert Evans at 817-200-1234, or the undersigned at 817-200-1455.

Sincerely,

/RA/

Patricia A. Silva, Chief
Materials Licensing and Inspection Branch
Division of Nuclear Materials Safety

Docket No.: 030-28641
License No.: 42-23539-01AF

Enclosure:
Technical Evaluation Report for
Unresolved Item 030-28641/1706-01

cc:
Lt Col A. Hale

Technical Evaluation Report for Unresolved Item 030-28641/1706-01

The U.S. Nuclear Regulatory Commission (NRC) issued a Master Materials License (MML) to the Department of the Air Force (licensee) in 1985. Under the MML, the licensee is allowed to issue permits to various Air Force facilities for possession and use of radioactive material. Master Materials License 42-23539-01AF, Condition 20.S, references the Understandings between the United States Air Force and the United States Nuclear Regulatory Commission dated September 19, 2014 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML14262A340). Paragraph 9 of the Understandings states, in part, that the Radioisotope Committee will implement the MML in a manner that is consistent with NRC guidelines, policies, and procedures.

During the 2017 biennial inspection of the licensee's MML, documented in NRC Inspection Report 030-28641/2017-006 dated December 12, 2017 (ADAMS Accession No. ML17341B626), an Unresolved Item was identified involving a potential discrepancy between the licensee's use of possession-only permits and the NRC's Decommissioning Timeliness Rule. During the inspection, the NRC identified six variously worded possession-only permits that were issued for time periods of greater than two years. The inspection team questioned whether the licensee was in compliance with the NRC's Decommissioning Timeliness Rule requirements by issuing possession-only permits for time periods greater than two years.

As noted above, the licensee is required by the license to implement the MML in a manner which is consistent with NRC guidelines, policies, and procedures. The licensee's apparent issuance of possession-only permits for time periods greater than two years conflicted with the guidance provided in the NRC's Policy and Guidance Directive 1-27 (P&G 1-27), "Reviewing Requests to Convert Active Licenses to Possession-Only Licenses," approved on February 22, 2000 (ADAMS Accession No. ML003685598), which limits possession-only licenses to two-year expiration dates that may be renewed if the licensee continues to demonstrate that it cannot divest itself of the radioactive material. In addition, Section 4.6.3 of NUREG-1556, Volume 20, Consolidated Guidance About Materials Licenses: Guidance About Administrative Licensing Procedures, states that possession-only licenses will be renewed every two years for a two-year term, and decommissioning issues will be addressed at the time of renewal.

In response to this inspection finding, the NRC Region IV Office consulted with the NRC's Office of Nuclear Material Safety and Safeguards. The NRC's analysis and conclusion regarding the Unresolved Item are presented below.

Discussion

The NRC's "Timeliness in Decommissioning of Materials Facilities" rule (known hereafter as the Decommissioning Timeliness Rule), was issued in 1994 (see *Federal Register* Notice 59 FR 36026 dated July 15, 1994). This rule amended Title 10 to the *Code of Federal Regulations* (10 CFR) Parts 2, 30, 40, 70, and 72 to establish definitive criteria for timely decommissioning of unused portions of operating sites and of entire sites upon termination of operations. The Decommissioning Timeliness Rule established requirements for notifying the NRC of cessation of principal activities, submittal of decommissioning plans (DPs), and initiation and completion of decommissioning activities. The rule also allows licensees to request, and the NRC to grant relief from, the timing requirements, if certain criteria are met.

The NRC issued a byproduct materials license to the Department of the Air Force under the provisions of 10 CFR Part 30. The regulations in 10 CFR 30.36(d) state that:

Enclosure

Within 60 days of the occurrence of any of the following, consistent with the administrative directions in 10 CFR 30.6, each licensee shall provide notification to the NRC in writing of such occurrence, and either begin decommissioning its site, or any separate building or outdoor area that contains residual radioactivity so that the building or outdoor area is suitable for release in accordance with NRC requirements, or submit within 12 months of notification a decommissioning plan, if required by paragraph (g)(1) of this section, and begin decommissioning upon approval of that plan if—

- (1) The license has expired pursuant to paragraph (a) or (b) of this section; or
- (2) The licensee has decided to permanently cease principal activities, as defined in this part, at the entire site or in any separate building or outdoor area that contains residual radioactivity such that the building or outdoor area is unsuitable for release in accordance with NRC requirements; or
- (3) No principal activities under the license have been conducted for a period of 24 months; or
- (4) No principal activities have been conducted for a period of 24 months in any separate building or outdoor area that contains residual radioactivity such that the building or outdoor area is unsuitable for release in accordance with NRC requirements.

Similar regulations are provided in 10 CFR 40.42 for source material licenses and 10 CFR 70.38 for special nuclear material licenses.

Three key timeframes are provided in the Decommissioning Timeliness Rule:

- Within 60 days of any of the triggering events listed in 10 CFR 30.36(d), the licensee must provide notice to the NRC and, for licensees that are not required to submit a DP, initiate decommissioning
- For licensees required to submit a DP, submit the DP within 12 months of the notification and initiate decommissioning upon approval of the DP
- Complete decommissioning within 24 months of initiating decommissioning

Several provisions in 10 CFR 30.36 provide relief from these timeframes. Specifically, 10 CFR 30.36(f) provides that the NRC may approve an extension of the date by which to initiate decommissioning. Similarly, 10 CFR 30.36(g)(2) provides that the NRC may approve an alternate schedule for submittal of a DP. Finally, 10 CFR 30.36(i) provides that the NRC may approve an alternate schedule for completion of decommissioning.

The six Department of the Air Force MML permittees that were the subject of the Unresolved Item have not initiated NRC's decommissioning process or submitted DPs. Therefore, the timeframes and associated extension provisions that are pertinent to the Unresolved Item are those for initiation of decommissioning and potential extension of this deadline (10 CFR 30.36(d) and 30.36(f)) and for submittal of a DP and a potential alternate schedule for submittal of a DP after notification (10 CFR 30.36(d) and 30.36(g)(2)).

Compliance Review

With regards to the six Department of the Air Force MML permittees discussed in NRC Inspection Report 030-28641/2017-006, the question is whether the licensee improperly issued possession-only permits for terms greater than two years without seeking relief from the NRC from the Decommissioning Timeliness Rule requirements specified in 10 CFR 30.36 and 10 CFR 40.42. To determine whether the licensee was in compliance with NRC regulatory requirements, the NRC considered three questions:

- (1) If the expiration dates for possession-only licenses/permits are extended beyond two years, how do licensees ensure compliance with Decommissioning Timeliness Rule requirements?

The regulations offer licensees with a process for the Commission to grant alternate schedules for decommissioning. Consistent with 10 CFR 30.36(f), and as further clarified in NRC's Regulatory Issue Summary RIS 2015-19, "Decommissioning Timeliness Rule Implementation and Associated Regulatory Relief," licensees must submit a request to delay initiation of decommissioning to NRC staff no later than 30 days prior to the 10 CFR 30.36(d) notification deadline. Title 10 CFR 30.36(f) is an appropriate mechanism to request to extend the time periods for decommissioning, if it is not detrimental to the public health and safety and is otherwise in the public interest.

The criteria in 10 CFR 30.36(f) are also substantially similar to the criteria that licensees must satisfy to obtain a specific exemption pursuant to 10 CFR 30.11(a), 10 CFR 40.14(a), or 10 CFR 70.17(a). In other words, in order to support issuance of a possession-only license for a term longer than two years, the NRC would make the same findings that it must make to support approval of a 10 CFR 30.36(f) request to delay initiation of decommissioning or a 10 CFR 30.11(a) request for an exemption from the Decommissioning Timeliness Rule. In turn, an MML may issue a possession-only permit for a term longer than two years, subject to these same criteria.

The NRC staff would consider imposing license conditions similar to the requirements of the Decommissioning Timeliness Rule that are specifically tailored to account for the continued military use of the site.

- (2) Do licensees/permittees have to submit alternate schedules for initiation of decommissioning to the NRC for licenses and permits that exceed the two year expiration interval?

Yes, a licensee or permittee may choose to either follow 10 CFR 30.36(g)(2) for an alternate schedule request to submit a DP (if notification has occurred under 10 CFR 30.36(d)), or may request to extend the timeframes associated with initiating decommissioning (including submitting a DP) per 10 CFR 30.36(f) if notification has not already occurred.

- (3) Did the licensee comply with 10 CFR 30.36(f) requirements when it failed to submit alternate schedules for decommissioning to the NRC for any possession-only permit that exceeded two years?

Current NRC guidance provides for the issuance of a possession-only permit for a period of two years. Outside of this time frame, the NRC applies the Decommissioning Timeliness Rule. The NRC Inspection Report 030-28641/2017-006 identified six possession-only permits that have been issued for time periods of greater than two years. These six sites include the two

McClellan Air Force Base (AFB), California, permits for radium-226; Nellis AFB, Nevada, permit for an active range; Davis-Monthan AFB, Arizona, permits for an aircraft “boneyard;” Elmendorf AFB, Alaska, permit for radium-226; and Hill AFB, Utah, permit for radium-226.

The NRC staff reviewed the information provided by the licensee by email dated May 31, 2018, regarding the last use of Atomic Energy Act (AEA) material at the six sites. At both McClellan and Hill AFBs, the last use of radium-226 was during the 1960s. At Elmendorf AFB, radium-226 was identified at the site in 2007. The licensee continues to possess and use depleted uranium at Nellis AFB. Finally, at Davis-Monthan AFB, radium dials were removed in 2018 from aircraft stored at the base.

In summary, four of the six permits are managed under the Department of Defense (DoD) NRC Memorandum of Understanding (MOU) dated April 2016 (ADAMS Accession No. ML16092A294), and not the MML. Thus, the NRC’s Decommissioning Timeliness Rule requirements are not applicable for these four permits: two permits at McClellan AFB; Elmendorf AFB; and Hill AFB. The remaining two permits (Nellis and Davis-Monthan AFBs) are managed under the MML. A detailed analysis of each of the six permits is provided below.

As discussed in Commission Paper SECY-11-0023, Enclosure 3 (ADAMS Accession No. ML110110317), the U.S. Environmental Protection Agency (EPA) provides oversight of the McClellan AFB site and its two permits. Under the NRC-DoD MOU, NRC’s role is not to license, or for the licensee to permit it pursuant to its MML, but to rely on existing EPA oversight to avoid dual regulation. The Commission approved this approach in Staff Requirements Memorandum SRM-SECY-11-0023 (ADAMS Accession No. ML110830952).

Section 14 of the NRC-DoD MOU stipulates that DoD will provide an annual inventory of sites where response actions are being conducted under the Defense Environmental Restoration Program. The NRC will either monitor or stay informed of activities in progress at these sites. The most recent annual site inventory from the licensee dated September 2018 indicates that the activities involving radium-226 at McClellan and Elmendorf AFBs are managed under the NRC-DoD MOU. Therefore, remediation activities at these sites are under EPA oversight. The NRC’s role is to stay informed of site activities for these three permits.

Hill AFB is permitted for possession, characterization, and decontamination of residual radium-226 contamination. By email dated January 16, 2019 (ADAMS Accession No. ML19064A779), the licensee acknowledged that the radium-226 at Hill AFB was permitted in error under the MML prior to the finalization of the MOU. As discussed in SECY-14-0082 (ADAMS Accession No. 14097A040), DoD’s position, prior to MOU finalization, was that the NRC did not have the jurisdiction to license military possession of radium-226. It was not until the MOU was finalized and RIS-2016-06 was finalized that NRC’s jurisdiction over military possession of radium was resolved. In accordance with Section 10 of the MOU, the licensee planned to suspend the Hill AFB permit and submit an updated annual site inventory to the NRC at a later date. The NRC staff agreed that Hill AFB should be managed under the MOU and not the MML. The NRC’s future role will be to stay informed of site activities, similar to the McClellan and Elmendorf AFB sites, depending on the level of EPA involvement at the Hill AFB site.

In accordance with the licensee’s email dated May 31, 2018, Nellis AFB is actively using AEA material. According to the permit, the authorized uses include training, tactical employment, and storage of depleted uranium. Because the licensee is using the radioactive material

consistent with its authorized uses, the licensee is in compliance with the Decommissioning Timeliness Rule.

Davis-Montham AFB has been issued a permit for removal, reinstallation, possession, storage, and transfer of radioactive material, including radium-226, for the purposes of recovery, recycling, and disposal. As noted in the licensee's May 31, 2018, email, the licensee continues to use radioactive material, most recently by removing a radium gauge from an aircraft in 2018. This appears consistent with its permit for authorized use as an aircraft boneyard. In this example, the licensee is in compliance with the Decommissioning Timeliness Rule.

Based on information gained during a telephone call held with the licensee on January 16, 2019 (ADAMS Accession No. ML19064A779), the NRC staff understands that the licensee will submit an amendment to its Letter of Understanding, referenced in License Condition 20.S, to describe how the licensee will manage the two types of sites (DoD MOU versus MML). This future amendment request is expected to clarify the licensee's policy of ensuring that sites managed under the MOU and sites managed under the MML do not overlap. During the telephone call, the licensee's representatives stated that it needed to revise an internal radiation protection program procedure referenced in the license before it can update the MOU. After the internal procedure is updated, the licensee plans to submit an amendment request to the NRC to update License Condition 20.S.

Conclusion

In summary, based on the specifics of each of the six possession-only permits, it appears that the licensee did not violate the Decommissioning Timeliness Rule. The licensee must implement current NRC guidance and regulatory requirements. In particular, possession-only permits should have expiration dates of two years or less to comply with current NRC guidance; otherwise, alternate decommissioning schedules should be submitted to the NRC to comply with the Decommissioning Timeliness Rule.

Additionally, the licensee should consider revising the six permits, as needed, to clarify the authorized uses. Any of the six permits listed above that do not meet the criteria for possession-only permits should be amended, or suspended, to update the authorized uses under that particular permit.

Finally, the NRC understands that the licensee's proposed amendment request to update its Letter of Understanding will resolve this potential dual oversight concern related to Comprehensive Environmental Response, Compensation, and Liability Act of 1980/Defense Environmental Restoration Program response actions and NRC licensing requirements.

Unresolved Item 030-28641/1706-01 will remain open until the NRC has reviewed the licensee's corrective actions, including program changes, to ensure compliance with current NRC guidance and regulatory requirements. The NRC plans to complete this review during the next biennial inspection, currently scheduled for October 2019.

REVIEW OF UNRESOLVED ITEM FROM NRC INSPECTION REPORT 030-28641/2017-006,
 DATED MARCH 11, 2019

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