

NUCLEAR REGULATORY COMMISSION

[NRC-2008-0213]

DOCKET NO. 040-06394

**NOTICE OF AVAILABILITY OF ENVIRONMENTAL ASSESSMENT AND FINDING OF NO
SIGNIFICANT IMPACT FOR LICENSE AMENDMENT TO SOURCE MATERIALS LICENSE NO.
SMB-141, FOR UNRESTRICTED RELEASE OF A PORTION OF THE DEPARTMENT OF THE
ARMY, US ARMY RESEARCH, DEVELOPMENT AND ENGINEERING COMMAND, ARMY
RESEARCH LABORATORY FACILITY AT THE ABERDEEN PROVING GROUND IN
MARYLAND**

AGENCY: Nuclear Regulatory Commission.

ACTION: Issuance of Environmental Assessment and Finding of No Significant Impact for License Amendment.

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SUPPLEMENTARY INFORMATION:

I. Introduction

The U.S. Nuclear Regulatory Commission (NRC) is considering the issuance of a license amendment to Source Materials License No. SMB-141. This license is held by the Department of the Army, US Army Research, Development And Engineering Command (ARDEC), Army Research Laboratory (ARL) (the Licensee), for its US Army Research Laboratory (the Facility),

located at the Aberdeen Proving Ground, Maryland. Issuance of the amendment would authorize release of the R-14 Range for unrestricted use. The Licensee requested this action in a letter dated May 11, 2009. The NRC has prepared an Environmental Assessment (EA) in support of this proposed action in accordance with the requirements of Title 10, Code of Federal Regulations (CFR); Part 51 (10 CFR Part 51). Based on the EA, the NRC has concluded that a Finding of No Significant Impact (FONSI) is appropriate with respect to the proposed action. The amendment will be issued to the Licensee following the publication of this FONSI and EA in the Federal Register.

II. Environmental Assessment

Identification of Proposed Action

The proposed action would approve the Licensee's May 11, 2009, license amendment request, resulting in release of the R-14 Range for unrestricted use. License No. SMB-141 was issued on April 12, 1961, pursuant to 10 CFR Part 40, and has been amended periodically since that time. This license authorized the Licensee to use uranium and thorium for purposes of conducting research and development activities; fabrication, modification, and testing of components, parts, and/or devices; and munitions testing.

The R-14 Range is situated on Spesutie Island within the Aberdeen Proving Ground and consists of structures used for munitions testing, support buildings for administrative activities, storage, and other support services. The R-14 Range is located in an area which is primarily undeveloped forest and wetlands. The R-14 Range occupies an area of about 5.28 acres, of which 0.2 acres is occupied by three remaining buildings. Within the R-14 Range, use of licensed materials was confined to R-14 Blast Chamber, Firing Tube, Air Handling System, Hot Line Building and Water Treatment Shed and areas of the Laydown Yard, Firing Line and the Grassy Field south of the Blast Chamber.

On November 6, 2007, the Licensee ceased licensed activities at the R-14 Range and initiated a survey and decontamination of the R-14 Range. Based on the Licensee's historical knowledge of the site and the conditions of the R-14 Range, the Licensee determined that only routine decontamination activities, in accordance with their NRC-approved, operating radiation safety procedures, were required. The Licensee was not required to submit a decommissioning plan to the NRC because worker cleanup activities and procedures are consistent with those approved for routine operations. The Licensee conducted surveys of the R-14 Range and provided information to the NRC to demonstrate that it meets the criteria in Subpart E of 10 CFR Part 20 for unrestricted release.

Need for the Proposed Action

The Licensee has ceased conducting licensed activities at the R-14 Range and seeks the unrestricted use of the R-14 Range.

Environmental Impacts of the Proposed Action

The historical review of licensed activities conducted at the R-14 Range shows that such activities involved use of the following radionuclides with half-lives greater than 120 days: uranium-234, uranium-235, and uranium-238. Prior to performing the final status survey, the Licensee conducted decontamination activities, as necessary, in the areas of the R-14 Range affected by these radionuclides.

The Licensee conducted a final status survey during the period of May 7 through September 25, 2008. This survey covered all of the R-14 Range affected land areas (Laydown Yard, Firing Line, and the Grassy Field) and structures (R-14 Blast Chamber, Firing Tube, Air Handling System, Hot Line Building, and Water Treatment Shed). The final status survey report was attached to the Licensee's amendment request dated May 11, 2009. The Licensee elected

to demonstrate compliance with the radiological criteria for unrestricted release of buildings as specified in 10 CFR 20.1402 by using the screening approach described in NUREG-1757, "Consolidated NMSS Decommissioning Guidance," Volume 2. The Licensee used the radionuclide-specific derived concentration guideline levels (DCGLs), developed there by the NRC, which comply with the dose criterion in 10 CFR 20.1402. These DCGLs define the maximum amount of residual radioactivity on building surfaces, equipment, and materials that will satisfy the NRC requirements in Subpart E of 10 CFR Part 20 for unrestricted release. The Licensee's final status survey results were below these DCGLs and are in compliance with the As Low As Reasonably Achievable (ALARA) requirement of 10 CFR 20.1402. The NRC thus finds that the Licensee's final status survey results of buildings are acceptable.

The Licensee elected to demonstrate compliance with the radiological criteria for unrestricted release of soils as specified in 10 CFR 20.1402 by developing derived concentration guideline levels (DCGLs) for its R-14 Range. The Licensee conducted site-specific dose modeling using input parameters specific to the R-14 Range soils. The licensee used the relative fractions of uranium progeny fractions and the thickness of the contaminated zone at the R-14 Range, along with RESRAD default parameters and conservative input parameters from NRC and Environmental Protection Agency (EPA) guidance documents. The Licensee thus determined the maximum amount of residual radioactivity in soils that will satisfy the NRC requirements in Subpart E of 10 CFR Part 20 for unrestricted release. The NRC previously reviewed the Licensee's methodology and proposed DCGLs and concluded that the proposed DCGLs are acceptable for use as release criteria at the R-14 Range. The NRC's approval of the Licensee's proposed DCGLs was published in the *Federal Register* on April 9, 2008 (73 FR 19263). The Licensee's final status survey results of soils were below these DCGLs, and are thus acceptable.

Based on its review, the staff has determined that the affected environment and any environmental impacts associated with the proposed action are bounded by the impacts evaluated by the “Generic Environmental Impact Statement in Support of Rulemaking on Radiological Criteria for License Termination of NRC-Licensed Nuclear Facilities” (NUREG-1496) Volumes 1-3 (ML042310492, ML042320379, and ML042330385). The staff finds there were no significant environmental impacts from the use of radioactive material at the R-14 Range. The NRC staff reviewed the docket file records and the final status survey report to identify any non-radiological hazards that may have impacted the environment surrounding the R-14 Range. No such hazards or impacts to the environment were identified. The NRC has identified no other radiological or non-radiological activities in the area that could result in cumulative environmental impacts.

The NRC staff finds that the proposed release of the R-14 Range described above for unrestricted use is in compliance with 10 CFR 20.1402. Although the Licensee will continue to perform licensed activities at other parts of the Facility, the Licensee must ensure that this decommissioned area does not become recontaminated. In connection with the eventual termination of License No. SMB-151, the Licensee will be required to show that all licensed areas and previously-released areas comply with the radiological criteria in 10 CFR 20.1402. Based on its review, the staff considered the impact of the residual radioactivity at the R-14 Range and concluded that the proposed action will not have a significant effect on the quality of the human environment.

Environmental Impacts of the Alternatives to the Proposed Action

Due to the largely administrative nature of the proposed action, its environmental impacts are small. Therefore, the only alternative the staff considered is the no-action alternative, under which the staff would leave things as they are by simply denying the amendment request. This

no-action alternative is not feasible because it conflicts with 10 CFR 40.42(d), requiring that decommissioning of separate buildings or outdoor areas at source material facilities be completed and approved by the NRC after licensed activities there cease. The NRC's analysis of the Licensee's final status survey data confirmed that the R-14 Range meets the requirements of 10 CFR 20.1402 for unrestricted release. Additionally, denying the amendment request would result in no change in current environmental impacts. The environmental impacts of the proposed action and the no-action alternative are therefore similar, and the no-action alternative is accordingly not further considered.

Conclusion

The NRC staff has concluded that the proposed action is consistent with the NRC's unrestricted release criteria specified in 10 CFR 20.1402. Because the proposed action will not significantly impact the quality of the human environment, the NRC staff concludes that the proposed action is the preferred alternative.

Agencies and Persons Consulted

NRC provided a draft of this Environmental Assessment to the Maryland Department of the Environment, Air and Radiation Management Administration and Hazardous Waste Administration (MDE) for review on June 15, 2009. On June 23, 2009, MDE responded by email. The State agreed with the conclusions of the EA, and otherwise had no comments.

The NRC staff has determined that the proposed action is of a procedural nature, and will not affect listed species or critical habitat. Therefore, no further consultation is required under Section 7 of the Endangered Species Act. The NRC staff has also determined that the proposed action is not the type of activity that has the potential to cause effects on historic properties.

Therefore, no further consultation is required under Section 106 of the National Historic Preservation Act.

III. Finding of No Significant Impact

The NRC staff has prepared this EA in support of the proposed action. On the basis of this EA, the NRC finds that there are no significant environmental impacts from the proposed action, and that preparation of an environmental impact statement is not warranted. Accordingly, the NRC has determined that a Finding of No Significant Impact is appropriate.

IV. Further Information

Documents related to this action, including the application for license amendment and supporting documentation, are available electronically at the NRC's Electronic Reading Room at <http://www.nrc.gov/reading-rm/adams.html>. From this site, you can access the NRC's Agencywide Documents Access and Management System (ADAMS), which provides text and image files of NRC's public documents. The documents related to this action are listed below, along with their ADAMS accession numbers.

1. Letter dated May 11, 2009 [ML091340490] and the enclosure "Draft Final, Final Status Survey Report, R-14 Range" April 2009 [ML091340611, ML091340637, ML092100380, ML091340648, ML091350126, ML091350204, ML091350218, ML091350225, ML091350237, ML091350250, ML091350255, ML091350234];
2. NUREG-1757, "Consolidated NMSS Decommissioning Guidance;"
3. Title 10 Code of Federal Regulations; Part 20, Subpart E, "Radiological Criteria for License Termination;"
4. Title 10, Code of Federal Regulations; Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions;" and

5. NUREG-1496, "Generic Environmental Impact Statement in Support of Rulemaking on Radiological Criteria for License Termination of NRC-Licensed Nuclear Facilities."

If you do not have access to ADAMS, or if there are problems in accessing the documents located in ADAMS, contact the NRC Public Document Room (PDR) Reference staff at 1-800-397-4209, 301-415-4737, or by email to pdr@nrc.gov. These documents may also be viewed electronically on the public computers located at the NRC's PDR, O 1 F21, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852. The PDR reproduction contractor will copy documents for a fee.

Dated at Region I this 10th day of August 2009.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

James Dwyer, Chief
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Region I