

NUCLEAR REGULATORY COMMISSION

Docket No. 040-06394, [NRC-2008-0523]

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, U.S. Army Research, Development and Engineering Command, Army Research Laboratory Facility at the Aberdeen Proving Ground in Maryland

AGENCY: Nuclear Regulatory Commission.

ACTION: Notice of availability.

FOR FURTHER INFORMATION CONTACT: Dennis Lawyer, Health Physicist, Commercial and R&D Branch, Division of Nuclear Materials Safety, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406. Telephone: 610-337-5366; fax number: 610-337-5269; e-mail: Dennis.Lawyer@nrc.gov.

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, U.S. Army Research, Development and Engineering Command (ARDEC), Army Research Laboratory (ARL) (the Licensee), for its U.S. Army Research Laboratory facility (the Facility) located at the Aberdeen Proving Ground (APG), Maryland. Issuance of the amendment would authorize release of a portion of the Facility, specifically the Building 1103A area, for unrestricted use. The Licensee requested this action in a letter dated March 31, 2010. The NRC has prepared an Environmental Assessment (EA) in support of this proposed action in accordance

with the requirements of Title 10 of the *Code of Federal Regulations* (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 March 31, 2010, license amendment request, resulting in release of the Building 1103A area 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 Building 1103A area is a former radioactive material processing and storage facility on Spesutie Island at APG. Historical activities at the Building 1103A area involved the unloading of depleted uranium contaminated targets in a central asphalt area; storage and staging of the targets in one of three vaults; cutting and machining of the targets; and storage and reloading of the resulting steel pieces in preparation for decontamination, disposal, or reuse. The Building 1103A area occupies an area of about 36,600 square feet, of which 7,000 square feet is comprised of buildings.

In August 2009, the Licensee ceased licensed activities at the Building 1103A area and initiated a survey and decontamination of the Building 1103A area. Based on the Licensee's historical knowledge of the site and the conditions of the Building 1103A area, the Licensee determined that a decommissioning plan was required. The decommissioning plan was submitted and was approved in License Amendment #30, issued on November 20, 2008,

(Agencywide Document Access and Management System [ADAMS] Accession No. ML083260281). In accordance with their NRC-approved decommissioning plan (ADAMS Accession Numbers ML081550541, ML081550549, ML081550553, ML081550557, and ML081550561), the Licensee performed cleanup activities. The Licensee then conducted surveys of the Building 1103A Area and provided information to the NRC to demonstrate that the Building 1103A Area 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 Building 1103A area, and seeks the unrestricted use of the Building 1103A area.

Environmental Impacts of the Proposed Action

The historical review of licensed activities conducted at the Building 1103A area shows that such activities involved use of depleted uranium radionuclides with half-lives greater than 120 days. Prior to performing the final status survey, the Licensee conducted decontamination activities, as necessary, in the areas of the Building 1103A area affected by these radionuclides.

The Licensee conducted a final status survey during the period of September 2009 through December 2009, August 2010, and December 2010. This survey covered all of the Building 1103A area including soil and building areas. The final status survey report was attached to the Licensee's letter dated, February 17, 2011 (ADAMS Accession Number ML110630042). The Licensee elected to demonstrate compliance with the radiological criteria for unrestricted release of buildings as specified in 10 CFR 20.1402 by developing derived concentration guideline levels (DCGLs) for the Building 1103A area. The Licensee conducted site-specific dose modeling using input parameters specific to the Building 1103A area. Specifically, the site specific ratio of uranium-234, uranium-235, and uranium-238 was used along

with NRC and U.S. Environmental Protection Agency modeling data. The Licensee thus determined the maximum amount of residual radioactivity on building surfaces, equipment, materials and soils that will satisfy the NRC requirements in Subpart E of 10 CFR Part 20 for unrestricted release. The NRC reviewed the Licensee's methodology and proposed DCGLs, and concluded that the proposed DCGLs are acceptable for use as release criteria at the Building 1103A area. The Licensee's final status survey results were below these DCGLs and are thus acceptable.

The environmental impacts considered are to people residing on the site after decommissioning and, therefore, subject to radiation exposure principally caused by residual radioactivity in soil; impacts to people working in site buildings after decommissioning and therefore subject to radiation exposure principally caused by residual radioactivity on building surfaces impacts; and impacts to plant and animal populations after decommissioning and therefore subject to radiation exposure principally caused by residual radioactivity in soil. These same impacts were reviewed by and evaluated by NUREG-1496, "Generic Environmental Impact Statement in Support of Rulemaking (GEIS) on Radiological Criteria for License Termination of NRC-Licensed Nuclear Facilities," Volumes 1-3 (ADAMS Accession Numbers ML042310492, ML042320379, and ML042330385]. Specifically, section 2.4.3.2 on page 2-9 of the GEIS Volume 1 lists these impacts and others that were evaluated for non-fuel cycle nuclear material facilities. The GEIS also states that the types of facilities which are included in the analysis include non-fuel cycle nuclear material facilities as stated in section 3.2.1 starting on page 3-1 of Volume 1.

Based on its review, the NRC staff has determined that the affected environment and any environmental impacts associated with the proposed action are bounded by the impacts evaluated by the GEIS. Because the GEIS found that there were no significant impacts for the non-fuel cycle nuclear material facilities, which would include the Building 1103A area, the staff

finds there were no significant environmental impacts from the use of radioactive material at the Building 1103A area. 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 Building 1103A area. No such hazards or impacts to the environment were identified. The NRC staff 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 Building 1103A area described above for unrestricted use is in compliance with 10 CFR 20.1402. Although the Licensee will continue to perform licensed activities at the Facility, the Licensee must ensure that this decommissioned area, the Building 1103A area, does not become re-contaminated. In connection with the eventual termination of License No. SMB-141, the Licensee will be required to show that all licensed areas and previously-released areas at the Facility 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 Building 1103A area 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 and are bounded by the GEIS. Therefore, the only alternative the NRC staff considered is the no-action alternative, under which the staff would deny the amendment request and leave things as they currently exist. This no-action alternative is not feasible because it conflicts with 10 CFR 40.42, 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 Building 1103A area meets the requirements of 10 CFR 20.1402 for unrestricted release and the NRC has no

reason not to approve release of the Building 1103A area. Additionally, denying the amendment request would result in no change of the environmental impacts between the alternate and the proposed action. 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 and that the proposed action will not significantly impact the quality of the human environment.

Agencies and Persons Consulted

NRC provided a draft of this EA to the Maryland Department of the Environment (MDE) Air and Radiation Management Administration and Land Management Administration for review on March 17, 2011. On April 20, 2011, the MDE responded by electronic mail. The MDE agreed with the conclusions of the EA and otherwise had no technical 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 FONSI 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 Library at <http://www.nrc.gov/reading-rm/adams.html>. From this site, you can access the NRC's 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. Amendment Request Letter dated March 31, 2010 (ML101170783);
2. Final Status Survey Report dated March 2010 (ML101180233), (ML101180244), (ML101180276), (ML101180281);
3. Letter dated July 15, 2010 (ML102030110);
4. Letter dated September 27, 2010 (ML103280172);
5. Final Status Survey Report Revision 1 September 2010 (ML103280196), (ML103280205), (ML103280235), (ML103280252), (ML103280264), (ML103280270), (ML103280465), (ML103280475), (ML103280468);
6. Letter dated February 17, 2011 (ML110630042);
7. Final Status Survey Report Revision 2, dated January 2011 (ML110630049), (ML110630443), (ML110630528), (ML110630524), (ML110630444), (ML110630428);
8. NUREG-1757, "Consolidated NMSS Decommissioning Guidance";

9. Title 10, Code of Federal Regulations, Part 20, Subpart E, "Radiological Criteria for License Termination";
10. Title 10, Code of Federal Regulations, Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions"; and
11. 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.resource@nrc.gov. These documents may also be viewed electronically on the public computers located at the NRC's Public Document Room, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852. The PDR reproduction contractor will copy documents for a fee.

Dated at King of Prussia, Pennsylvania this 12th day of July 2011.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

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