

NUCLEAR REGULATORY COMMISSION

DOCKET NO. 030-29462

**NOTICE OF AVAILABILITY OF ENVIRONMENTAL ASSESSMENT AND FINDING OF NO
SIGNIFICANT IMPACT FOR LICENSE AMENDMENT TO MATERIALS LICENSE NO.
45-23645-01NA, TO INCORPORATE THE DECOMMISSIONING PLAN FOR THE NAVAL
SURFACE WARFARE CENTER AT DAHLGREN, VIRGINIA**

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 Materials License No. 45-23645-01NA. The license is held by the Department of the Navy (Navy). This is a Master Materials License and covers many sites around the country. The proposed action pertains to Building 200 and adjacent grounds (the Facility) at the Navy's Naval Surface Warfare Center Dahlgren Division in Dahlgren, Virginia. Issuance of the amendment would incorporate the Decommissioning Plan into the license to allow completion of decommissioning activities at the site and eventual unrestricted release of the Facility. The NRC has evaluated and approved the Navy's Decommissioning Plan. The findings of this evaluation

are documented in a Safety Evaluation Report which will be issued along with the license amendment. The Navy requested this action in a letter dated March 4, 2008. The NRC has prepared an Environmental Assessment 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 Environmental Assessment, the NRC has concluded that a Finding of No Significant Impact is appropriate with respect to the proposed action. The license amendment will be issued to the Navy following the publication of this Finding of No Significant Impact and Environmental Assessment in the Federal Register.

II. Environmental Assessment

Identification of Proposed Action

The proposed action would approve the Navy's March 4, 2008, license amendment request to incorporate the Decommissioning Plan into the license, resulting in final decommissioning of the Facility and subsequent release of the Facility for unrestricted use. Test firing of depleted uranium rounds at the facility began in the early 1970s under NRC Materials License No. SMB-1145. The Navy issued Navy Radioactive Materials Permit No. 45-00178-S1NP authorizing the test firing of depleted uranium rounds at the Facility in 1987 when the Master Materials License was issued to the Navy. The Navy initiated decommissioning of the facility in 1993 and work is ongoing. In January 2002, the permit was converted to decommissioning permit, NRMP No. 45-00178-Y1NP. The Decommissioning Plan submitted by the Navy addresses the residual contamination in Bay 4 in Building 200 and adjacent soil outside of the building.

The facility is the largest tenant at the Naval Support Facility Dahlgren, which is located in King George County, Virginia, approximately 40 miles south of Washington, D.C., and 25 miles east of Fredericksburg, Virginia. The Naval Support Facility Dahlgren encompasses

approximately 4,300 acres on the western bank of the Potomac River. The region surrounding Naval Support Facility Dahlgren is sparsely populated.

Bay 4 in Building 200 consists of the target bay and gun bay. The target bay is 14.5 feet wide, 9 feet high, and 106 feet in length; and the gun bay is 14.5 feet wide, 9 feet high, and 138 feet in length. Building 200, Bay 4 is an indoor firing range where single shot tests on 20-40 millimeter depleted uranium and tungsten energy penetrators were fired. It is estimated that between 2,000 and 3,000 depleted uranium rounds were fired in Bay 4.

Need for the Proposed Action

The proposed action is to approve the Decommissioning Plan that the Navy may complete Facility decommissioning activities. Completion of the decommissioning activities will reduce residual radioactivity at the facility. The NRC's regulations require licensees to begin timely decommissioning of their sites, or any separate buildings that contain residual radioactivity, upon cessation of licensed activities, in accordance with 10 CFR 30.36(d). The proposed licensing action will support such a goal. The NRC is fulfilling its responsibilities under the Atomic Energy Act to make a decision on a proposed license amendment for decommissioning that ensures protection of the public health and safety.

Environmental Impacts of the Proposed Action

The historical review of licensed activities conducted at the facility shows that such activities involved the test firing of depleted uranium rounds and the storage of contaminated targets and debris.

The NRC staff has reviewed the Navy's amendment request for the Facility and examined the impacts of this license amendment request. Potential impacts include water resource impacts (e.g. water may be used for dust control), air quality impacts from dust emissions, temporary local

traffic impacts resulting from transporting debris, human health impacts, noise impacts from equipment operations, scenic quality impacts, and waste management impacts.

Based on its review, the staff has determined that no surface or ground water impacts are expected from the decommissioning activities. Additionally, the staff has determined that significant air quality, noise, land use, and off-site radiation exposure impacts are also not expected. No significant air quality impacts are anticipated because of the contamination controls that will be implemented by the Navy during decommissioning activities. The environmental impacts associated with the decommissioning activities are bounded by impacts evaluated by NUREG-1496, "Generic Environmental Impact Statement in Support Rulemaking on Radiological Criteria for License Termination of NRC Licensed Nuclear Facilities." Generic impacts for this type of decommissioning process were previously evaluated and described in the "Generic Environmental Impact Statement in Support Rulemaking on Radiological Criteria for License Termination of NRC Licensed Nuclear Facilities," which concludes that the environmental consequences are small. The risk to human health from the transportation of all radioactive material in the United States was evaluated in NUREG-0170, "Final Environmental Statement on the Transportation of Radioactive Materials by Air and Other Modes." The principal radiological environmental impact during normal transportation is direct radiation exposure to nearby persons from radioactive material in the package. The average annual individual dose from all radioactive material transportation in the United States was calculated to be approximately 0.5 mrem, which is well below the 10 CFR 20.1301 limit of 100 mrem for a member of the public. Additionally, the Navy estimates that approximately 78 cubic yards of solid radioactive waste will be generated during decommissioning activities. This proposed action will not significantly increase the probability or consequences of accidents, no changes are being made in the types of effluents that may be released off site, and there is no significant increase in occupational or public

radiation exposure. Thus, waste management and transportation impacts from the decommissioning will not be significant.

Occupational health was also considered in NUREG-0170, "Final Environmental Impact Statement of the Transportation of Radioactive Material by Air and Other Modes." Shipment of these materials would not affect the assessment of environmental impacts or the conclusions in NUREG-0170.

The staff also finds that the proposed license amendment will meet the radiological criteria for unrestricted release as specified in 10 CFR 20.1402. The Navy demonstrated this through the development of building surface derived concentration guideline limits for its Facility. The Navy conducted site specific dose modeling using parameters specific to the Facility that adequately bounded the potential dose. The release limits for soil at the Facility will be those published in the Federal Register on December 7, 1999 (Volume 64, Number 234, Pages 68395-68396).

The Navy will maintain an appropriate level of radiation protection staff, procedures, and capabilities; and will implement an acceptable program to keep exposure to radioactive materials as low as reasonably achievable (ALARA). Work activities are not anticipated to result in radiation exposures to the public in excess of 10 percent of the 10 CFR 20.1301 limits.

The NRC also evaluated whether cumulative environmental impacts could result from an incremental impact of the proposed action when added to other past, present, or reasonably foreseeable future actions in the area. The proposed NRC approval of the license amendment request, when combined with known effects on resource areas at the site, including further site remediation, are not anticipated to result in any cumulative impacts at the site.

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 30.36(d), requiring that decommissioning of byproduct material facilities be completed and approved by the NRC after licensed activities cease. The no action alternative would keep radioactive material on-site without disposal. 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 Virginia Bureau of Radiological Health for review on August 1, 2008. On October 30, 2008, the Virginia Bureau of Radiological Health responded by email. The Commonwealth agreed with the conclusions of the Environmental Assessment, 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 Environmental Assessment in support of the proposed action. On the basis of this Environmental Assessment, 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 Document Access and Management System (ADAMS), which provides text and image files of the NRC's public documents. The documents related to this action are listed below, along with their ADAMS accession numbers.

1. NUREG-1757, "Consolidated NMSS Decommissioning Guidance;"
2. Title 10 Code of Federal Regulations, Part 20, Subpart E, "Radiological Criteria for License Termination;"
3. Title 10, Code of Federal Regulations, Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions;"

4. NUREG-1496, "Generic Environmental Impact Statement in Support of Rulemaking on Radiological Criteria for License Termination of NRC-Licensed Nuclear Facilities;"
5. NUREG-1720, "Re-evaluation of the Indoor Resuspension Factor for the Screening Analysis of the Building Occupancy Scenario for NRC's License Termination Rule – Draft Report;"
6. NRC License No. 45-23645-01NA inspection and licensing records;
7. Department of the Navy, Decommissioning Building 200, Bay 4 Depleted Uranium (DU) Indoor Test Range at Naval Surface Warfare Center Dahlgren Division (NAVSURFWARCEN), dated November 15, 2006 (ML063340558);
8. Department of the Navy, Naval Surface Warfare Center Dahlgren Division Building 200 Decommissioning Plan, dated March 4, 2008 (ML080980180); and
9. New World Technology, Final Decommissioning Plan Building 200, Bay 4, Dahlgren Laboratory, Dahlgren, Virginia, dated January 10, 2008.

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 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 Public Document Room, O 1 F21, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852. The Public Document Room reproduction contractor will copy documents for a fee.

Dated at Region I, 475 Allendale Road, King of Prussia, PA this 11th day of December 2008

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

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