

**NUCLEAR REGULATORY COMMISSION**

**DOCKET NO. 040-00341**

**NOTICE OF AVAILABILITY OF ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT FOR LICENSE AMENDMENT TO SOURCE MATERIALS LICENSE NO. STC-133, TO INCORPORATE THE DECOMMISSIONING PLAN FOR THE DEFENSE LOGISTICS AGENCY'S HAMMOND DEPOT FACILITY IN HAMMOND, INDIANA**

**AGENCY:** Nuclear Regulatory Commission.

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

**FOR FURTHER INFORMATION CONTACT:** Betsy Ullrich, Senior Health Physicist, Commercial and R&D Branch, Division of Nuclear Materials Safety, Region I, 475 Allendale Road, King of Prussia, Pennsylvania, 19406; telephone (610) 337-5040; fax number (610) 337-5269; or by email: [exu@nrc.gov](mailto:exu@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. STC-133. This license is held by Defense Logistics Agency (the Licensee), and covers several sites around the country. The proposed action pertains to the Licensee's Hammond Depot site (the Facility), located at 3200 S. Sheffield Avenue, in Hammond, Indiana. Issuance of the amendment would incorporate the Decommissioning Plan (DP) 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 Licensee's DP. The findings of this evaluation are documented in a Safety Evaluation Report which will be issued along with the amendment. The Licensee requested this action in a letter dated December 8, 2005. The Licensee's amendment request was noted in the Federal Register on February 1, 2007 (72 FR 4734). This Federal Register notice also provided an opportunity for a hearing on this licensing action. No hearing requests were received. 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 December 8, 2005, license amendment request to incorporate the DP into the license, resulting in final decommissioning of the Facility and subsequent release of the Facility for unrestricted use. License No. STC-133 was issued on February 14, 1957, pursuant to 10 CFR Part 40, and has been amended periodically since that time. This license authorized the Licensee to possess uranium and thorium as natural uranium and thorium mixtures as ores, concentrates and solids for the purpose of storage, sampling, repackaging and transfer for the activities of the National Defense Stockpile.

The Facility is situated on approximately 57 acres in an industrial/commercial area. The Facility consists of eight buildings of which three warehouses were used to store drums of

licensed materials, several pads and ground areas where non-radioactive ore piles were stored, and unused grassy areas, wet lands and an adjacent lake. A number of paved and dirt roads, along with railroad tracks, traverse the site. Within the Facility, use of licensed materials was confined to Warehouse 100W, Warehouse 100E, Warehouse 200E and its outdoor re-packaging area, and the burn cage. Licensed activities ceased in August 2005.

### **Need for the Proposed Action**

The proposed action is to approve the DP so that the Licensee may complete Facility decommissioning activities. Completion of the decommissioning activities will reduce residual radioactivity at the Facility. NRC 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 40.42(d). The proposed licensing action will support such a goal. 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 storage, repackaging and transfer of licensed material in the form of thorium nitrate, monazite sand and other ores containing source material. The licensed materials were always stored inside buildings, but were moved to other buildings and/or on and off the Facility, which resulted in some licensed materials being spilled outdoors.

The NRC staff has reviewed the Licensee amendment request for the Facility and examined the impacts of this license amendment request. Potential impacts include water

resource impact (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 operation, scenic quality impacts, and waste management impacts.

Based on its review, the staff has determined that no surface water 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 Licensee during decommissioning activities. In addition, the environmental impacts associated with the decommissioning activities are bounded by impacts evaluated by NUREG-0586, "Final Generic Environmental Impact Statement on the Decommissioning of Nuclear Facilities," (GEIS). Generic impacts for this type of decommissioning process were previously evaluated and described in the GEIS, which concludes that the environmental consequences are small. The risk to human health from the transportation of all radioactive material in the U.S. 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 U.S. was calculated to be approximately 0.5 mrem, well below the 10 CFR 20.1301 limit of 100 mrem for a member of the public. Additionally, the Licensee estimates that approximately 270 cubic meters of low-contaminated demolition material waste and 1,120 cubic meters of low-contaminated soil will leave the site over the course of the decommissioning project. The waste will be transported from the Facility by rail car to its final destination. This proposed action will not significantly

increase the probability or consequences of accidents, no changes are being made in the types of any 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 the “Final Environmental Impact Statement on 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 the “Final Environmental Impact Statement on the Transportation of Radioactive Material by Air and Other Modes.”

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 Licensee demonstrated this through the development of derived concentration guideline limits (DCGLs) for its Facility. The Licensee conducted site specific dose modeling using parameters specific to the Facility that adequately bounded the potential dose. This included dose modeling for two scenarios: building surfaces and soil. The building surface dose model was based on the warehouse worker scenario and the soil dose modeling was based on a resident farmer scenario.

The Licensee will maintain an appropriate level of radiation protection staff, procedures, and capabilities, and, through its Radiation Safety Officer, 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**

The only alternative to the proposed action of decommissioning the Facility 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 source 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 NRC guidance and regulations. 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 State of Indiana, Department of the Environment for review on June 26, 2007. On November 2, 2007, Indiana

State Department of Health, Radiological Emergency Response Program, responded by email. The State agreed with the conclusions of the EA, and otherwise had no comments.

### **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 Document 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. 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. Letter dated December 8, 2005 (ML053500252)
6. Historical Site Assessment (ML060580605)
7. Preliminary Site Specific Derived Concentration Guidelines (ML060580629)
8. Radiological Scoping Survey (ML060580608)
9. Environmental Assessment, Disposition of Thorium Nitrate (ML060580592)
10. Letter dated July 5, 2006 (ML061870578) and July 19, 2006 (ML062070231)
11. Radiological Characterization Survey Report (ML062710179)
12. Decommissioning/Remediation Plan (ML062760618)
13. Letter dated January 12, 2007 (ML070160372)
14. Federal Register Notice of Consideration (ML070250043)

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](mailto: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 475 Allendale Road, King of Prussia, PA, this 21<sup>st</sup> day of November.

FOR THE NUCLEAR REGULATORY COMMISSION

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