

**NUCLEAR REGULATORY COMMISSION**

**DOCKET NO. 030-30904**

**NOTICE OF ENVIRONMENTAL ASSESSMENT RELATED TO THE ISSUANCE OF A  
LICENSE AMENDMENT TO BYPRODUCT MATERIAL LICENSE NO.  
13-17582-02, FOR UNRESTRICTED RELEASE OF A FACILITY FOR THE ROSE-HULMAN  
INSTITUTE OF TECHNOLOGY, TERRE HAUTE, INDIANA**

**AGENCY:** Nuclear Regulatory Commission

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

**FOR FURTHER INFORMATION CONTACT:** George M. McCann, Senior Health Physicist, Decommissioning Branch, Division of Nuclear Materials Safety, U.S. Nuclear Regulatory Commission, Region III, 2443 Warrenville Road, Lisle, Illinois 60532-4352; Telephone: (630) 829-9856; or by email at [gmm@nrc.gov](mailto:gmm@nrc.gov).

**SUPPLEMENTARY INFORMATION:**

The U.S. Nuclear Regulatory Commission (NRC) is considering the issuance of a license amendment to NRC Byproduct Materials License No. 13-17582-02. This license is held by Rose-Hulman Institute of Technology (the Licensee) for a building (the Facility) on its Terre Haute, Indiana campus in which NRC-licensed materials were formerly stored. Issuance of the amendment would authorize release of the Facility for unrestricted use. The Licensee requested this action in a letter dated February 14, 2006, (ADAMS Accession No. ML062230210). The NRC has prepared an Environmental Assessment in support of this proposed action in accordance with the requirements of 10 CFR Part 51. Based on the

Environmental Assessment, the NRC has determined that a Finding of No Significant Impact (FONSI) is appropriate for the proposed action. The amendment to Rose-Hulman Institute of Technology's license will be issued following the publication of this Environmental Assessment and Finding of No Significant Impact in the Federal Register.

## **I. Environmental Assessment**

### **Identification of Proposed Action**

The proposed action would approve Rose-Hulman Institute of Technology's request to amend its license and release the Facility for unrestricted use in accordance with 10 CFR Part 20, Subpart E. The Licensee received its initial NRC license on July 19, 1977, pursuant to 10 CFR Part 30, and this license was superceded on February 2, 1989, by NRC License No. 13-17582-02. These licenses authorized the licensee to use low millicurie quantities of byproduct materials in sealed and unsealed form for training and teaching students in nuclear and radiation physics. The licensee is currently authorized to possess and use millicurie quantities of byproduct materials in sealed sources.

The licensee's Facility is a cinder block building of 100 – 150 square feet located about 60 feet northwest of the north end of Moench Hall (the Institute's main class-room building). The Facility contained a lead storage vault and was used to store plutonium-239/Beryllium neutron sources (which have been transferred to an authorized disposal agent), and an americium-241 sealed source.

Based on the Licensee's historical knowledge of the site and the conditions of the Facility, the Licensee determined that only routine decontamination activities, in accordance with its NRC-approved operating radiation safety procedures were required. The Licensee was not required to submit a decommissioning plan to the NRC because cleanup activities and

procedures are consistent with those approved for routine operations. The licensee provided survey results which demonstrated that the Facility was in compliance with 10 CFR 20.1402, "Radiological Criteria for Unrestricted Use." No radiological remediation activities are required to complete the proposed action. The NRC completed a closeout inspection and independent radiological surveys of the licensee's Facility on July 13, 2006, (NRC Inspection Report No. 030-30904/06-001 (ADAMS Accession No.ML062140020)), which verified the licensee's survey findings.

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

The licensee has ceased conducting licensed activities at the Facility. The NRC is fulfilling its responsibilities under the Atomic Energy Act to make a decision on the proposed action for decommissioning that ensures that residual radioactivity at the Facility is reduced to a level that is protective of the public health and safety and the environment, and allows the Facility to be released for unrestricted use.

### **Environmental Impacts of the Proposed Action**

The NRC staff reviewed the information provided and surveys performed by the licensee to demonstrate that the release of the Facility is consistent with the radiological criteria for unrestricted use specified in 10 CFR 20.1402. The NRC performed a closeout inspection and survey to confirm the licensee's findings. The Licensee elected to demonstrate compliance with the radiological criteria for unrestricted release as specified in 10 CFR 20.1402 by using the screening values described in NUREG-1757, "Consolidated NMSS Decommissioning Guidance," Volume 1. 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, and in soils, that will satisfy the NRC requirements in Subpart E of 10 CFR Part 20 for unrestricted release. The NRC considers these DCGLs to be in compliance with the As Low As is Reasonably Achievable (ALARA) requirement of 10 CFR 20.1402. The Licensee's final status survey results 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). Further, no incidents were recorded involving spills or releases of radioactive material at the Facility. Accordingly, there were no significant environmental impacts from the use of radioactive material at the Facility. 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 Facility. No such hazards or impacts to the environment were identified. The NRC has found 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 Facility described above for unrestricted use is in compliance with 10 CFR 20.1402. Based on its review, the staff considered the impact of the residual radioactivity at the Facility and concluded that the proposed action will not have a significant effect on the quality of the human environment.

### **Alternatives to the Proposed Action**

The only alternative to the proposed action of allowing unrestricted release is no action. Under the no-action alternative, the Facility would remain under an NRC license and would not be released for unrestricted use. Denial of the license amendment request would result in no

change to current conditions at the Facility. The no-action alternative is not acceptable because it would result in violation of NRC's Timeliness Rule (10 CFR Part 30.36), which requires licensees to decommission their facilities when licensed activities cease. This alternative would also impose an unnecessary regulatory burden and limit potential benefits from future use of the licensee's property.

### **Conclusion**

The NRC staff 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**

The NRC staff has determined that the proposed action will not affect listed species or critical habitats. Therefore, no further consultation is required under Section 7 of the Endangered Species Act. Likewise, the NRC staff has determined that the proposed action is not a type of activity that has potential to cause effect on historic properties. Therefore, consultation under Section 106 of the National Historic Preservation Act is not required.

The NRC provided a draft of its Environmental Assessment (EA) to Mr. Rex J. Bowser, Program Director, Radiation Emergency Response Program, Radiological Health Section, Indiana State Department of Health for review on July 25, 2006. On July 26, 2006, Mr. Bowser responded back to the NRC by e-mail and indicated that "The IN State Dept. of Health, Radiological Health Section has no objections to this proposed action."

## **II. Finding of No Significant Impact**

On the basis of the EA in support of the proposed license amendment to release the

Facility for unrestricted use, the NRC has determined that the proposed action will not have a significant effect on the quality of the human environment. Thus, the NRC has not prepared an environmental impact statement for the proposed action.

### **III. Further Information**

Documents related to this action, including the application for 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. 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). The documents and ADAMS accession numbers related to this notice are:

4. Letter dated February 14, 2006, with "Final Status Survey of the Radioactive Source Storage Building at the Rose-Hulman Institute of Technology," dated September 27, 2005, attached. (ADAMS Accession No. ML062230210).
5. NRC Inspection Report No.030-30904/06-001. (ML062140020).
6. U.S. Nuclear Regulatory Commission, "Environmental Review Guidance for Licensing Actions Associated with NMSS Programs," NUREG-1748, August 2003.
7. U.S. Nuclear Regulatory Commission, "Generic Environmental Impact Statement in Support of Rulemaking on Radiological Criteria for License Termination of NRC-Licensed Nuclear Facilities," NUREG-1496, August 1994.
8. NRC, NUREG-1757, "Consolidated NMSS Decommissioning Guidance," Volumes 1-3, September 2003.

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 Lisle, Illinois, this 18<sup>th</sup> day of August 2006.

For the Nuclear Regulatory Commission,

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Jamnes L. Cameron, Chief  
Decommissioning Branch  
Division of Nuclear Materials Safety  
Region III

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