

NUCLEAR REGULATORY COMMISSION

DOCKET NO. 030-01182

**NOTICE OF AVAILABILITY OF ENVIRONMENTAL ASSESSMENT AND FINDING OF NO
SIGNIFICANT IMPACT FOR LICENSE AMENDMENT TO BYPRODUCT MATERIALS
LICENSE NO. 52-01986-01, FOR TERMINATION OF THE LICENSE AND UNRESTRICTED
RELEASE OF THE UNIVERSITY OF PUERTO RICO'S FACILITY IN
RIO PIEDRAS, PUERTO RICO**

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 Byproduct Materials License No. 52-01986-01. This license is held by the University of Puerto Rico (the Licensee), for its Agricultural Experiment Station (the Facility) located at 1193 Guayacan St., Botanical Gardens, Rio Piedras, San Juan, Puerto Rico. Issuance of the amendment would authorize release of the Facility for unrestricted use and

termination of the NRC license. The Licensee requested this action in a letter dated September 28, 2004. 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 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 September 28, 2004, license amendment request resulting in release of the Facility for unrestricted use and the termination of its NRC materials license. License No. 52-01986-01 was issued on February 13, 1957, pursuant to 10 CFR Part 30, and has been amended periodically since that time. The license authorized the Licensee to use unsealed byproduct material for conducting research and development activities on laboratory bench tops and in hoods. The license also authorized the use of sealed byproduct material for sources for gas chromatograph (GC) detectors and moisture/density gauges.

The Facility is situated on just under 200 acres, and consists of a botanical garden, conservatories, office space, and laboratories. The Facility is located on a university campus within a largely residential area. Within the Facility, use of licensed materials was confined to the Central Analytical Laboratory (21 feet by 13 feet (21' x 13')), a sample processing room (10' x 20'), and a soil laboratory (20' x 40'). The sealed source gauges were stored in the Old Phytotron Building (12' x 24') and in a storage room within the soils laboratory (10' x 10').

In 1998, the Licensee ceased licensed activities and initiated transfer of all radioactive materials and a survey and decontamination of the Facility. 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 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 Facility and provided information to the NRC to demonstrate that it meets the criteria in Subpart E of 10 CFR Part 20 for unrestricted release and for license termination.

Need for the Proposed Action

The Licensee has ceased conducting licensed activities at the Facility, and seeks the unrestricted use of its Facility and the termination of its NRC materials license. Termination of its license would end the Licensee's obligation to pay annual license fees to the NRC.

Environmental Impacts of the Proposed Action

The historical review of licensed activities conducted at the Facility shows that such activities involved use of the following radionuclides with half-lives greater than 120 days: sealed tritium and nickel-63 sources for GC detectors and sealed americium-241 and cesium-137 in moisture/density gauges. The only long-lived unsealed radionuclide authorized by this license was carbon-14, which was used infrequently and in small amounts. Licensed materials were not used in outdoor areas, although the NRC staff identified one occurrence in 1964 in which plants and soil containing a small amount of carbon-14 may have been inadvertently discarded or buried at the site. The NRC staff evaluated the potential impact of

this event by performing a dose assessment (described below). Prior to performing the final status survey, the Licensee conducted decontamination activities, as necessary, in the areas of the Facility affected by these radionuclides.

The Licensee conducted a final status survey that covered the Central Analytical Laboratory, sample processing room, soil laboratory, the storage room within the soils laboratory, and the Old Phytotron Building. The final status survey report was attached to the Licensee's amendment request dated September 28, 2004. The Licensee elected to demonstrate compliance with the radiological criteria for unrestricted release 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, and in soils, 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 concludes that the Licensee's final status survey results are thus acceptable.

Based on its review, the staff has determined that, with one exception, 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 one impact not bounded by the generic evaluation is the potential discarding or burial of carbon-14 that occurred in 1964. NRC staff reviewed licensee records and conducted interviews with past and present AES staff, and determined that a small amount

(0.5 microcuries) of carbon-14 incorporated in soil and plants may have been discarded inadvertently at the site. The NRC staff performed a dose assessment to evaluate the potential health and safety impact of this event. The staff determined that the highest potential dose from the material is less than 1 millirem/year (mrem/yr), and is well below the 25 mrem/yr value in 10 CFR 20.1402. No other 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 materials 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 impacts.

The NRC staff finds that the proposed release of the Facility for unrestricted use and the termination of the NRC materials license 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.

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 NRC's analysis of the Licensee's final status survey data

confirmed that the Facility meets the requirements of 10 CFR 20.1402 for unrestricted release. Additionally, this denial of the application 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.

Agencies and Persons Consulted

NRC provided drafts of its Environmental Assessment and Dose Assessment to the Department of Health of Puerto Rico for review on February 21, 2006. On March 29, 2006, the Department of Health of Puerto Rico responded by letter. 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 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 with their ADAMS accession numbers:

1. Final Status Survey Results for the Rio Piedras Research Center of the University of Puerto Rico Agricultural Experiment Station, dated September 28, 2004 [ADAMS Accession No. ML042780499];
2. Telephone Logs Containing Additional Site History Information, dated January 28, 2005 [ADAMS Accession No. ML050330622], February 10, 2005 [ADAMS Accession No. ML050430017], April 11, 2005 [ADAMS Accession No. ML051050036], August 31, 2005 [ADAMS Accession No. ML052450026], and February 9, 2006 [ADAMS Accession No. ML060400169];
3. Dose Assessment Evaluating Potential Burial of Carbon-14 at University of Puerto Rico Agricultural Experiment Station [ADAMS Accession No. ML061090546];
4. Federal Register Notice, Volume 65, No. 114, page 37186, dated Tuesday, June 13, 2000, "Use of Screening Values to Demonstrate Compliance With The Federal Rule on Radiological Criteria for License Termination";
5. Title 10 Code of Federal Regulations, Part 20, Subpart E, "Radiological Criteria for License Termination";
6. Title 10, Code of Federal Regulations, Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions";

7. 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 King of Prussia, Pennsylvania this 12th day of May, 2006.

For the Nuclear Regulatory Commission

/RA/

Marie Miller, Chief
Decommissioning Branch
Division of Nuclear Materials Safety
Region I