

**NUCLEAR REGULATORY COMMISSION**

**DOCKET NO. 030-01183**

**NOTICE OF AVAILABILITY OF ENVIRONMENTAL ASSESSMENT AND FINDING OF NO  
SIGNIFICANT IMPACT FOR LICENSE AMENDMENT TO BYPRODUCT MATERIALS  
LICENSE NO. 52-01986-04, FOR THE UNRESTRICTED RELEASE OF A TREE AT THE  
UNIVERSITY OF PUERTO RICO'S EL VERDE RESEARCH STATION, PUERTO RICO**

**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 1, 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 Byproduct Materials License No. 52-01896-04. This license is held by the University of Puerto Rico, College of Natural Sciences (the Licensee), for its University of Puerto Rico Rio Pedras Campus in San Juan, Puerto Rico and a tree at the El Verde Research Station, located in the Luquillo Forest of the Caribbean National Forest. Issuance of the amendment would authorize release of the tree at the El Verde Research Station from any further license

requirements. The Licensee requested this action in a letter dated November 16, 2005. 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 NRC plans to take the proposed action 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 November 16, 2005, license amendment request and would release the tree at the El Verde Research Station from further license requirements. License No. 52-01986-04 was issued on March 18, 1969, pursuant to 10 CFR Part 30, and has been amended periodically since that time. Amendment 13 of this license, issued June 21, 2001, authorized the Licensee to possess the tree at the El Verde Research Station that was previously authorized under License No. 52-19434-02. License No. 52-19434-02 was issued March 9, 1982, and terminated on June 21, 2001. The tree had been injected with 460 microcuries of cesium-137 (Cs-137) in 1968 during a study that was sponsored by the U. S. Atomic Energy Commission and performed by the Puerto Rico Nuclear Center at the University of Puerto Rico. The U. S. Department of Energy (DOE) decommissioned the El Verde Research Station early in the 1980's and transferred responsibility for it, including the tree, to the University of Puerto Rico.

The tree is situated in Study Area 4 of the El Verde Research Station in the Luquillo Forest. The tree is located in a remote area that is accessible only by a trail which includes

steep climbs and a cable suspension bridge. The affected area extends about 5 meters from the tree, and includes surface soil and the root system in addition to the tree itself.

The Licensee has provided oversight of the tree since 1982 with assistance from the DOE. In the 1990's, DOE performed additional surveys and remediation activities in the area of the tree. Based on the Licensee's historical knowledge of the site and the conditions of the tree and its affected area, the Licensee determined that no additional decommissioning activities were required. The Licensee provided information to the NRC to demonstrate that it meets the criteria in Subpart E of 10 CFR Part 20 for unrestricted release of the tree.

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

The Licensee seeks to remove the tree from further license requirements. Release of the tree would relieve the Licensee of requirements for maintaining fences and postings of the area for the purposes of radiation protection.

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

The historical review of licensed activities conducted on the tree shows that such activities involved injection into the tree of 460 microcuries of Cs-137 in 1968. Prior to performing the final status survey, the DOE conducted decontamination activities, as necessary, in the areas of the tree affected by Cs-137, on behalf of the Licensee.

The DOE conducted various surveys of the tree and its affected areas in the 1980's and 1990's. The survey reports were attached to the Licensee's amendment request dated November 16, 2005. The Licensee elected to demonstrate compliance with the radiological criteria for unrestricted release as specified in 10 CFR 20.1402 by providing the site-specific dose modeling performed by the DOE, using input parameters specific to the tree based on the

results of DOE surveys. The Licensee thus determined the maximum amount of residual radioactivity on materials and soils that will satisfy the NRC requirements in Subpart E of 10 CFR Part 20 for unrestricted release.

The NRC performed independent calculations to determine if the residual material in the tree and its affected environment would meet Subpart E of 10 CFR Part 20 for unrestricted release. 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). The staff finds there were no significant environmental impacts from the use of radioactive material in the tree. The NRC staff reviewed the docket file records and the survey reports to identify any non-radiological hazards that may have impacted the environment surrounding the tree. No such hazards or impacts to the environment were identified. The NRC 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 tree 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 tree 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 survey data confirmed that the tree and its affected area meet the requirements of 10 CFR 20.1402 for unrestricted release. 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 Commonwealth of Puerto Rico, Puerto Rico Health Department, Radiological Health Division, for review on June 21, 2006. On July 31, 2006, the Commonwealth of Puerto Rico responded by electronic mail. The Commonwealth 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, along with their ADAMS accession numbers.

(1) University of Puerto Rico, Amendment request dated November 16, 2005, with supporting documents [ML053550475]

(2) Department of Energy, letter dated August 16, 1993 [ML060470455]

(3) Department of Energy, letter dated March 19, 1993 [ML060470461]

(4) NUREG-1757, "Consolidated NMSS Decommissioning Guidance;"

(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](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 King of Prussia this 15<sup>th</sup> day of August 2006.

FOR THE NUCLEAR REGULATORY COMMISSION

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