

NUCLEAR REGULATORY COMMISSION  
DOCKET NO. 030-05222  
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Environmental Assessment Related to an Amendment  
of U.S. Nuclear Regulatory Commission Materials License No. 29-00139-02,  
Issued to E.R. Squibb & Sons, Incorporated

The U.S. Nuclear Regulatory Commission (NRC) is considering amending Materials License Number 29-00139-02 and authorizing the release of a portion of the licensee's facilities in New Brunswick, New Jersey, for unrestricted use and has prepared an Environmental Assessment (EA) in support of this action.

**SUMMARY:** The NRC reviewed the results of the decommissioning of Buildings 122 and 124 and associated outdoor areas at the E.R. Squibb & Sons, Inc. (Squibb) facility in New Brunswick, New Jersey. Squibb has been authorized by NRC since 1964 to use radioactive materials at the site for manufacturing and distribution of radiopharmaceuticals and research and development. In June 2001, Squibb ceased operations with licensed materials at Buildings 122 and 124, and began decommissioning activities. In October 2003, Squibb requested that NRC release these buildings and associated outdoor areas for unrestricted use. Squibb has conducted surveys of the facility and determined that the buildings and associated outdoor areas meet the license termination criteria in Subpart E of 10 CFR Part 20. The NRC staff has evaluated Squibb's request and the results of the surveys, and has developed an EA in accordance with the requirements of 10 CFR Part 51. The NRC has determined that a Finding of No Significant Impact (FONSI) is appropriate for the proposed action.

## Introduction

Squibb requested release for unrestricted use of Buildings 122 and 124 and surrounding outdoor areas at One Squibb Drive, New Brunswick, New Jersey as authorized by the NRC License No. 29-00139-02. The radiopharmaceutical manufacturing plant (Building 124) and the associated storage facility (Building 122) occupy approximately 73,500 square feet of general office, laboratory, manufacturing, distribution, and storage space located in a mixed residential/commercial/industrial area. The outdoor areas include a yard area, approximately 43,000 square feet, consisting of a paved area and undisturbed soil around Buildings 122 and 124; the location of one 98-foot tall steel stack located to the east of Building 124 that served as the exhaust from Building 124 ventilation systems; a tank pit located to the south of Building 83 which contained two 8,000-gallon underground tanks; and a tank pit located adjacent to Building 124 which contained four 10,000-gallon underground tanks.

License No. 29-00139-02 was issued in 1956 to E.R. Squibb and Sons, Inc. and amended periodically since that time to include multiple locations of use. The license was amended in 1964 to include radiopharmaceutical manufacturing operations in Buildings 122 and 124 at the New Brunswick facility. NRC-licensed activities performed at Buildings 122 and 124 included processing, storage and decay of radioactive materials generated during the manufacture of radiopharmaceuticals; distribution of radiopharmaceuticals; and laboratory procedures typically

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performed on bench tops and in hoods. Various radionuclides were used at Buildings 122 and 124, including hydrogen-3, carbon-14, cobalt-60, selenium-75, strontium-89, strontium-90, molybdenum-99, cesium-137, mercury-197, thallium-201, and mercury-203. Six tanks located outdoors in pits were used to collect liquid effluent containing radioactive material and to hold the liquid for decay. The yard area was used mainly for travel between Buildings 122 and 124.

Licensed activities at Buildings 122 and 124 ceased completely in October 2003 and the licensee requested release of the buildings and associated outdoor areas for unrestricted use. Based on the licensee's historical knowledge of the site and the condition of the buildings and associated outdoor areas, the licensee determined that only routine decontamination activities, in accordance with the licensee's approved radiation safety procedures, were required. A decommissioning plan was not required to be submitted to the NRC.

The licensee conducted an extensive three-phase decommissioning effort, including characterization surveys, remedial action surveys, and final status surveys. Decommissioning and remediation activities conducted during these phases are summarized in the Final Status Survey Report. NRC Region I inspectors visited the New Brunswick site during all three phases of decommissioning activities and observed the procedures, equipment, and methods used by the licensee.

Major decontamination and decommissioning activities included removal of the following:

- Six underground tanks, associated piping and valves, and the concrete vaults.
- Building 124 process vent stack.
- Major portion of the Building 124 exhaust ventilation ducting, the HEPA and charcoal filters and housings.
- Process glove boxes and hoods, laboratory cabinets, counter tops, and fume hoods.
- All process drain lines and soil under process drain lines in Building 124, Rooms 150 and 152.
- Decontamination and partial removal of hot cells.

The associated outdoor areas were surveyed, including the collection of surface and subsurface soil samples, as part of the decommissioning effort. No radioactive contamination was identified in these outdoor areas. The soil underneath Building 124 Rooms 150 and 152 was sampled during the removal of process drain pipes which had deteriorated and leaked into the soil. Approximately 200 cubic feet of contaminated soil was removed as part of the decommissioning effort. During this sampling, the licensee tested the soil underneath Rooms 150 and 152 for nonradiological contaminants. The licensee reported the results of this sampling to the State of New Jersey Department of Environmental Protection (NJ DEP) and is working with the State to resolve any issues.

Following remediation, the licensee surveyed the buildings and associated outdoor areas and provided documentation that the facility meets the license termination criteria specified in Subpart E of 10 CFR Part 20, and does not require additional decommissioning activities to be performed. The licensee demonstrated this using the screening criteria described in 65 FR 37186. The licensee has requested that the facility be released for unrestricted use.

### **The Proposed Action**

The proposed action is to amend Materials License No. 29-00139-02 and release Buildings 122 and 124 and associated outdoor areas at One Squibb Drive, New Brunswick, New Jersey for unrestricted use. By letter dated October 16, 2003, Squibb stated that no further actions are required to remediate the buildings and provided survey results which demonstrate that Buildings 122 and 124 and the associated outdoor areas are in compliance with the radiological criteria for license termination in Subpart E, 10 CFR Part 20, "Radiological Criteria for License Termination."

### **Purpose and Need for the Proposed Action**

The purpose of the proposed action is to amend NRC Materials License No. 29-00139-02, to allow for the release of Buildings 122 and 124 and the associated outdoor areas at the New Brunswick, New Jersey facility for unrestricted use. The licensee needs this license change because it no longer plans to conduct licensed activities at these buildings. NRC is fulfilling its responsibilities under the Atomic Energy Act to make a timely decision on a proposed license amendment for release of facilities for unrestricted use that ensures protection of public health and safety and the environment. The licensee has requested the action to reduce their regulatory burden since they no longer intend to conduct licensed activities at these locations.

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

The affected environment was described in the Introduction. The licensee has completed all necessary remediation at Buildings 122 and 124 and the associated outdoor areas. The NRC staff has reviewed the surveys performed by Squibb to demonstrate compliance with the license termination criteria in 10 CFR 20.1402. Based on its review, the staff has determined that the affected environment and environmental impacts associated with the release for unrestricted use of Buildings 122 and 124 and the associated outdoor areas at the Squibb facility 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). The staff also finds that the proposed release for unrestricted use of these buildings and outdoor areas is in compliance with Title 10, Code of Federal Regulations, Part 20.1402, "Radiological Criteria for Unrestricted Use." The NRC has found no other activities in the area that could result in cumulative impacts.

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

Since Buildings 122 and 124 and the associated outdoor areas at the New Brunswick site have already been surveyed and found acceptable for release for unrestricted use, the only alternative to the proposed action of amendment of the license and release of the buildings for unrestricted use is no action. Under the no-action alternative, the buildings would remain under the NRC license and would not be released for unrestricted use. The no-action alternative is not

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acceptable because the licensee does not plan to perform any activities with licensed materials at these locations and does not plan to maintain staff to perform licensed activities. Maintaining the areas under a license would impose an unnecessary regulatory burden. The effect of the no-action alternative would be to restrict potential benefits from future use of Buildings 122 and 124 and associated outdoor areas at the New Brunswick site.

### **Agencies and Persons Consulted**

The NRC staff has determined that the proposed action will not affect listed or proposed endangered species or critical habitat. 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 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.

NRC provided a draft of its Environmental Assessment to the NJDEP for review. On February 26, 2004, the NJDEP responded by letter and agreed with the conclusions of the EA.

### **Conclusions**

Based on its review, the NRC staff has concluded that the proposed release of the site for unrestricted use would comply with 10 CFR Part 20. The NRC staff has prepared this EA in support of the proposed license amendment to release Buildings 122 and 124 and associated outdoor areas for unrestricted use. On the basis of the EA, NRC has concluded that there are no significant environmental impacts and the license amendment does not warrant the preparation of an Environmental Impact Statement. Accordingly, it has been determined that a Finding of No Significant Impact is appropriate.

### **List of Preparers**

Donna M. Janda, Division of Nuclear Materials Safety, Region I

### **List of References**

1. NRC License No. 29-00139-02 inspection and licensing records [including ADAMS Accession Nos. ML020740657, ML031050333, and ML031480616].
2. Final Status Survey Report for the Bristol-Myers Squibb Former Radiopharmaceutical Production Facility, New Brunswick, New Jersey, dated September, 2003 [ADAMS Accession No. ML033000405].
3. 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."

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4. Title 10 Code of Federal Regulations, Part 20, Subpart E, "Radiological Criteria for License Termination."
5. Title 10, Code of Federal Regulations, Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions."
6. NUREG-1496, "Generic Environmental Impact Statement in Support of Rulemaking on Radiological Criteria for License Termination of NRC-Licensed Nuclear Facilities."
7. State of New Jersey Department of Environmental Protection letter dated February 26, 2004 [ADAMS Accession No. ML040700773].

The application for the license amendment and supporting documentation are available for inspection at NRC's Public Electronic Reading Room at <http://www.nrc.gov/reading-rm/adams.html>. Any questions with respect to this action should be referred to Donna Janda, Nuclear Materials Safety Branch 2, Division of Nuclear Materials Safety, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406, telephone (610) 337-5371, fax (610) 337-5269.

Dated at King of Prussia, Pennsylvania this 23rd day of March 2004

FOR THE NUCLEAR REGULATORY COMMISSION

***Original signed by John D. Kinneman***

John D. Kinneman, Chief  
Nuclear Materials Safety Branch 2  
Division of Nuclear Materials Safety  
Region I

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