



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO THE ORDER TERMINATING FACILITY LICENSE NO. R-109
BRIGHAM YOUNG UNIVERSITY L-77 RESEARCH REACTOR
DOCKET NO. 50-262

1.0 INTRODUCTION

By letter dated June 28, 1990, as supplemented on July 2, 1991, and March 9, 1992, Brigham Young University (BYU or the licensee) submitted a plan for dismantlement and decontamination of its reactor facility. The July 2, 1991, letter contained a request for termination of Facility License No. R-109 upon successful completion of decommissioning. After the NRC reviewed the plan, it was approved on July 23, 1992, and the licensee commenced the dismantlement and decontamination process.

Upon completion of the dismantlement and decontamination, the licensee submitted, by letter dated April 15, 1994, as supplemented on May 30, October 9, and December 7, 1995, the Decommissioning Survey for the L-77 Research Reactor as a basis for license termination.

On April 10 and 11, 1996, representatives from NRC's contractor, Oak Ridge Institute for Science and Education (ORISE), performed a confirmatory survey at the facility under an interagency agreement and in accordance with a request for technical assistance from NRC Region IV. Region IV staff members accompanied the ORISE personnel and observed the confirmatory survey. The survey is documented in an ORISE report, "Radiological Survey for the Brigham Young University L-77 Research Reactor Provo, Utah," dated June 1996.

2.0 EVALUATION

In a memorandum dated July 15, 1996, from Thomas P. Gwynn, Director, Division of Reactor Safety, Region IV, to Seymour H. Weiss, Director, Non-Power Reactors and Decommissioning Project Directorate, Office of Nuclear Reactor Regulation, regional staff concluded, on the basis of a review of licensee and ORISE survey results, that (1) residual surface contamination levels for reactor components and the facility were less than the values in NRC Regulatory Guide 1.86, Table 1, (2) gamma radiation levels were less than 5 micro-R/hr above background at 1 meter from component and facility surfaces, and (3) all byproduct and special nuclear material on Facility License R-109 was transferred or properly disposed of to another license authorizing receipt of the material. On the basis of its review of the survey results, Region IV staff recommended that the reactor components and the facility be released for unrestricted use and that Facility License R-109 be terminated.

The staff has determined that (1) the residual contamination levels for the reactor facility comply with the criteria of Regulatory Guide 1.86, Table 1, which establishes acceptable residual surface contamination levels for release for unrestricted use and termination of license, (2) the direct radiation levels are below 5 micro-R/hr above background at 1 meter, which is the exposure limit established by the NRC staff as acceptable for release for unrestricted use and termination of license, and (3) material licensed under Facility License No. R-109 has been removed from the site or has been transferred to another license. Therefore, the staff concludes that the facility can be released for unrestricted use and Facility License No. R-109 can be terminated.

3.0 ENVIRONMENTAL CONSIDERATION

The Commission has prepared an Environmental Assessment and Finding of No Significant Impact (EA), which was published in the Federal Register on October 28, 1996, (61 FR 55672). On the basis of the EA and the above Safety Evaluation, the Commission has determined that no Environmental Impact Statement is required and that issuance of this Order terminating the license will have no significant adverse effect on the quality of the human environment.

4.0 CONCLUSION

On the basis of the foregoing considerations, the staff concludes that Facility License No. R-109 can be terminated without undue risk to the health and safety of the public or workers, and without any significant impact on the public or the environment.

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Date: October 29, 1996