



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 OPERATING LICENSE NO. R-117

UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

LOW POWER REACTOR ASSEMBLY

DOCKET NO. 50-356

1.0 INTRODUCTION

By letter dated February 10, 1995, as supplemented on April 24, 1995, and October 2, 1996, the University of Illinois at Urbana-Champaign (the licensee or University) submitted a plan for decommissioning its Low Power Reactor Assembly (LOPRA or the reactor). The letter of February 10, 1995, contained a request for terminating Facility Operating License No. R-117. Following review by the NRC staff, Amendment No. 6 to the facility operating license was issued on January 21, 1997, approving the decommissioning plan, and the licensee commenced decommissioning activities. The licensee informed the NRC of the completion of decommissioning in accordance with Amendment No. 6 by letter dated April 15, 1997.

By separate action, the NRC is granting, in response to a request from the licensee by letter dated April 15, 1997, a specific exemption in accordance with 10 CFR 50.12 to the part of the requirements of 10 CFR 50.82(b)(6)(ii) that requires a terminal radiation survey and associated documentation to demonstrate that the facility and site are suitable for release as a condition of license termination. The University operates the Advanced TRIGA Research Reactor (TRIGA) (Docket No. 50-151, Facility Operating License No. R-115) in the same building (Nuclear Reactor Laboratory) in which the LOPRA was located. The LOPRA was located in the bulk shielding tank of the TRIGA reactor. The components and fuel of the LOPRA were transferred to the TRIGA license during decommissioning. Some components containing byproduct material were subsequently transferred to a University of Illinois byproduct materials license (License IL-01271-01) issued by the State of Illinois to allow the components to be stored at a facility away from the Nuclear Reactor Laboratory. The University will maintain the capability to construct and operate a subcritical assembly under the authority that currently exists in the TRIGA license. Therefore, no facility or site is to be released for unrestricted use as part of the termination of the LOPRA license. The NRC will consider release of the Nuclear Reactor Laboratory and disposition of the former LOPRA components and fuel in the future when the licensee applies for termination of the TRIGA license and conducts a terminal survey to show compliance with the regulations before release of the facility and site.

2.0 EVALUATION

On May 7, 1997, the NRC LOPRA project manager and a non-power reactor inspector visited the site at the University to confirm that the licensee has decommissioned the LOPRA in accordance with Amendment No. 6 to the facility operating license.

All byproduct and special nuclear material covered by Facility Operating License No. R-117 has been transferred to the Advanced TRIGA Research Reactor Facility License No. R-115 or to State of Illinois byproduct materials license IL-01271-01, which are authorized to receive the material. The LOPRA has been disassembled and all components were removed from the bulk shielding tank of the TRIGA reactor and placed into storage. The LOPRA fuel is stored in the facility's fuel storage pits. The storage of the fuel meets the criticality and cooling requirements of Technical Specification 5.3 of the TRIGA license. The staff has determined that no licensed material remains under the LOPRA license. The staff also has determined that the facility and site will remain subject to Operating License No. R-115 for the Advanced TRIGA Research Reactor. The NRC staff finds that the licensee has decommissioned the LOPRA in accordance with the decommissioning plan and License Amendment No. 6. Therefore, the staff concludes that Facility Operating License No. R-117 for the LOPRA 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 July 10, 1997 (62 FR 38129). On the basis of the EA and the safety evaluation, noted above, the Commission has determined that no environmental impact statement is required and that issuance of the 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 Operating License No. R-117 for the LOPRA 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: July 16, 1997