# UNITED STATES NUCLEAR REGULATORY COMMISSION ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT REGARDING PROPOSED ORDER AUTHORIZING DISMANTLING OF FACILITY

# AND DISPOSITION OF COMPONENT PARTS

## UNIVERSITY OF VIRGINIA

#### DOCKET NO. 50-396

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an Order authorizing the University of Virginia (UVA) to dismantle their Cooperatively Assembled Virginia Low Intensity Educational Reactor (CAVALIER) located on the licensee's campus in Charlottesville, Virginia, and to dispose of the reactor components in accordance with the application dated February 26, 1990, as supplemented on June 17, 1991.

#### ENVIRONMENTAL ASSESSMENT

# Identification of Proposed Action:

By application dated February 26, 1990, as supplemented, UVA requested authorization to decontaminate and dismantle the CAVALIER, to dispose of its components parts in accordance with the proposed Decommissioning Plan, and to terminate Facility Operating License No. R-123. The CAVALIER was shut down in March 1988, and has not operated since then. Following reactor shutdown, the fuel was removed from the core and transferred to the University of Virginia pool reactor (UVAR, Facility Operating License No. R-66, Docket No. 50-62) which is located in the same building.

Opportunity for hearing was afforded by a "Notice of Proposed Issuance of Orders Authorizing Disposition of Component Parts and Terminating Facility License" published in the FEDERAL REGISTER on April 22, 1991, (56 FR 16350).

No request for a hearing or petition for leave to intervene was filed following notice of the proposed action.

9202100217 920203 PDR ADDCK 05000396 PDR

## Need for Proposed Action:

In order to terminate the facility license and transfer the area to the UVAR, the dismantling and decontamination activities proposed by the University of Virginia must be accomplished.

## Environmental Impact of the Proposed Action:

All decontamination will be performed by trained personnel in accordance with previously reviewed procedures and will be overseen by experienced health physics staff. Solid and liquid waste will be removed from the facility and managed in accordance with NRC requirements. The UVA staff has calculated that the collective dose equivalent to the UVA staff and public for the project will be less than 0.5 person-rem.

The above conclusions were based on all proposed operations being carefully planned and controlled, all contaminated components being removed, packaged, and shipped offsite, or transferred to another NRC license, and that radiological control procedures will be in place that help to ensure that releases of radioactive wastes from the facility are within the limits of 10 CFR Part 20 and are as low as reasonably achievable (ALARA).

Based on the review of the specific proposed activities associated with the dismantling and decontamination of the University of Virginia CAVALIER facility, the staff has determined that there will be no significant increase in the amounts of effluents that may be released offsite, and no significant increase in individua: or cumulative occupational or population radiation exposure.

The staff has also determined that the proposed activities will not result in any significant impacts on air, water, land, or biota in the area.

#### Alternative Use of Resources:

The only alternative to the proposed dismantling and decontamination activities is to maintain possession of the reactor. This approach would include monitoring and reporting for the duration of the safe storage period. However, the University of Virginia intends to use the area for other academic purposes.

### Agencies and Persons Consulted:

The NRC staff consulted no other agencies or persons in reviewing the licensee's request.

### FINDING OF NO SIGNIFICANT IMPACT

The Commission has determined not to prepare an environmental impact statement for the proposed action based upon the foregoing environmental assessment. We conclude that the proposed action will not have a significant effect on the quality of the human environment.

For detailed information with respect to this proposed action, see the application for dismantling, decontamination and license termination dated February 26, 1990, as supplemented, and the Safety Evaluation prepared by the staff. These documents are available for public inspection at the Commission's Public Document Room, 2120 L Street, N.W., Washington, D.C. 20555.

Dated at Rockville, Maryland this 23rd day of January 1992.

FOR THE NUCLEAR REGULATORY COMMISSION

Seymour H. Weiss, Director

Non-Power Reactors, Decommissioning and Environmental Project Directorate

Division of Advanced Reactors

and Special Projects

Office of Nuclear Reactor Regulation