



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING THE ORDER TERMINATING FACILITY OPERATING LICENSE NO. R-127  
MEMPHIS STATE UNIVERSITY AGN-201 REACTOR FACILITY  
DOCKET NO. 50-538

1.0 INTRODUCTION

By letter dated November 10, 1986, as supplemented, Memphis State University (MSU) submitted a plan for dismantlement and decontamination of their AGN-201 reactor facility and a request for termination of Facility Operating License No. R-127. Following review by NRC staff, the plan was approved and an "Order Authorizing Dismantling of Facility and Disposition of Component Parts" was issued to MSU on January 26, 1988.

Upon completion of the dismantlement and decontamination, MSU submitted a report entitled "Request for Verification of Final Survey and Issuance of Order to Terminate License No. R-127 (Docket No. 50-538)" dated March 24, 1988, as supplemented. The report requested that the facility license be terminated because the facility met the unrestricted use criteria.

Region II performed a closeout inspection and survey of the facility on June 23, 1988 (NRC Inspection Report No. 50-538/88-01). Based on this inspection, MSU provided additional information by letter on July 14 and July 26, 1988. Region II returned to MSU on August 4, 1988 and a supplement to the inspection report was issued on August 9, 1988.

2.0 EVALUATION

As a result of the initial inspection of MSU, Region II requested clarification of data in the MSU termination report and requested that additional surveys be conducted by MSU. MSU converted reported contamination readings to DPM/100 square centimeters and provided fixed Beta/Gamma contamination readings. This additional information was reviewed by Region II at MSU on August 4, 1988 and a supplement to the inspection report was issued on August 9, 1988.

In a memorandum dated August 9, 1988 to C. Miller from D. Collins of Region II, the surveys and inspections confirmed that (1) all nuclear fuel has been removed from the facility, (2) residual contamination levels for the facility and remaining equipment do not exceed the limits specified in Table 1, Regulatory Guide 1.86, and (3) no areas were identified that exceeded the exposure limit of 5  $\mu$ R/hr above background at 1 meter from all surface areas. Region II recommended termination of the license and release of the facilities and equipment for unrestricted use.

### 3.0 ENVIRONMENTAL CONSIDERATION

The Commission has prepared an Environmental Assessment (EA) which was published in the FEDERAL REGISTER on October 18, 1988 (53 FR 40802). 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

Based on the foregoing considerations, the staff concludes that Facility Operating License No. R-127 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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Dated: October 19, 1988