



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING ORDER TERMINATING FACILITY LICENSE NO. R-122

TUSKEGEE INSTITUTE AGN-201 REACTOR

DOCKET NO. 50-406

Introduction

By application dated August 9, 1983, Tuskegee Institute requested authorization to dismantle its AGN-201 training reactor and dispose of the component parts and requested that Facility License No. R-122 be terminated. The application enclosed a report of the results of radiation measurements and surveys in support of the request.

Discussion and Evaluation

The AGN-201 training reactor, serial No. 102, was originally acquired by and licensed to Oklahoma State University in 1958. It was operated intermittently by that licensee until 1972, when it was decommissioned and transferred to Tuskegee Institute. With the exception of the fuel and fueled components of the reactor, there was no significant radioactivity at the time that Tuskegee Institute acquired it. The reactor is self-contained within its shield tank, and required no special construction, shielding, or utilities in order to be operable. An operating license to operate the reactor at a power level of 0.1 watt was issued to Tuskegee in 1974, but complete assembly and loading of fuel into the reactor was not accomplished at that time. During the intervening years, the fuel remained in storage and the reactor was not operated. In the meantime the licensee's program changed, and the reactor fuel was shipped in July 1982 to the Department of Energy at Oak Ridge, TN. Because of these circumstances, no reactor-related radiations or radioactive byproducts resulted from the storage of the reactor components and fuel at the Institute. The fuel, containing all reactor-associated radioactivity, has been shipped from Tuskegee, so there is no potential radiological impact on the environment resulting from the remaining components. Also, because the remaining components are essentially portable, requiring no disturbance of the buildings or grounds to remove them, there will be no significant environmental impact when they are eventually disposed of. The licensee requested and obtained permission from the Department of Energy (the owner) to retain a fission plate containing approximately 28 grams of uranium-235 enriched to 20%. Authorization to possess this plate was transferred to the Institute's State of Alabama (an agreement state) license SNM-228, Amendment No. 6.

The licensee submitted a report with the August 9, 1983 letter that summarized the results of measurements of the radiological condition of the component parts of the reactor and of the room in which they were located. Within the statistical significance of the measurements, no reactor related radioactivity

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was detected. On March 28, 1984, an inspector from the NRC Regional Office in Atlanta inspected the Tuskegee reactor site and performed independent radiation measurements, and examined licensee records. All of the above information was verified, and on April 12, 1984, the Regional Office recommended that Operating License No. R-122 be terminated.

Environmental Consideration

The Commission has determined that this action will not result in any significant environmental impact and that it does not constitute a major Commission action significantly affecting the quality of the human environment. On the basis of the above, the Commission has determined not to prepare an Environmental Impact Statement in connection with the issuance of an Order terminating the license.

Conclusion

The Commission has concluded, based on the considerations discussed above, that Facility Operating License No. R-122 should be terminated. We have further concluded that: (1) because the action does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the action does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by termination of the facility license in the proposed manner, and (3) such activities have been conducted in compliance with the Commission's regulations and the issuance of a Termination Order will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: October 2, 1984