



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 10 TO

FACILITY OPERATING LICENSE NO. R-94

MANHATTAN COLLEGE

DOCKET NO. 50-199

1.0 INTRODUCTION

By letter dated March 2, 1992, Manhattan College (the licensee) requested that their Facility Operating License No. R-94 be amended to permit the possession and use of a calibration source of up to 5 millicuries activity for use in calibration of radiation monitoring channels of the Radiation Monitoring System.

2.0 EVALUATION

The licensee's Technical Specifications (TS) require that two gamma radiation monitors mounted around the reactor pool be calibrated annually. The licensee was relying on check sources built into the detector units to calibrate the radiation monitors. However, it was noted in Inspection Report 50-199/87-02 that the radiation monitor channels are logarithmic and range from 0.01 - 100 mR/hr. The operation checks and calibrations with the internal check sources are conducted at a dose rate of approximately 1.5 mR/hr. This reading is close to the low end of the scale, and there is no indication of the operability of the system above 1.5 mR/hr, that is, toward the middle or higher end of the scale. In order to calibrate the radiation monitors at the higher end of the scale the licensee needs a source of sufficient strength which is one of up to 5 millicuries.

The licensee is qualified to possess and use such sources since he is licensed to possess and operate the reactor and to possess and use other special and byproduct nuclear material and, therefore, the staff finds that possession and use of a calibration source of up to 5 millicuries is acceptable.

In a telecon between R. Berlin, the licensee, and T. Michaels, NRC, on March 13, 1992, the licensee agreed to a modification of his TS regarding the surveillance and recordkeeping requirements associated with the new check source. These include semi-annual leak testing of the source and the maintenance of records regarding this source.

As a separate matter, the license condition which permitted possession of 3.2 kilograms of contained uranium at greater than 20 percent enrichment has been deleted since the fuel has been removed from the facility.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves changes in the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and there is no significant increase in individual or cumulative occupational radiation exposure. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously evaluated, or create the possibility of a new or different kind of accident from any accident previously evaluated, and does not involve a significant reduction in a margin of safety, the amendment 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 the proposed activities, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or the health and safety of the public.

Principal Contributor: Theodore S. Michaels

Date: April 13, 1992