



SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 13 TO FACILITY LICENSE NO. R-66

UNIVERSITY OF VIRGINIA

DOCKET NO. 50-62

Introduction

By letter dated December 18, 1978, the University of Virginia (the licensee) requested an amendment to Facility License No. R-66. The amendment would allow the licensee to receive, possess and use 1.0 gram of the byproduct material neptunium 237.

Discussion and Evaluation

The current Facility License authorizes the licensee, pursuant to the Atomic Energy Act of 1954, as amended, and 10 CFR Part 30, to receive, possess, store and use in the reactor pool 70,000 curies of cobalt 60 and to possess, but not separate such byproduct material as may be produced by operation of the reactor. The proposed amendment would allow the licensee to also receive, possess and use 1.0 gram of neptunium 237 (600 microcuries).

As previously authorized, the licensee is fully capable of handling radioactive material of a much greater concentration. The licensee's radiological protection program fulfills the requirements to possess, store and handle radioactive material and components that may become radioactive. Therefore, the handling of neptunium in 250 milligram (150 microcuries) quantities up to a total of 1.0 gram in double encapsulated containers is well within the licensee's capabilities and is considered insignificant when compared to the 70,000 curies of cobalt 60 the licensee is already authorized to possess.

The use of the neptunium 237 will be in experiments as a fast neutron fluence monitor in the form of 250 milligram foils. These foils will be doubly encapsulated and will meet all the requirements of Sections 3.6 and 3.7 of the TS. These TS provide the limits on experiments. Additionally, no experiment will be permitted to commence until authorized by the licensee's Reactor Safety Committee in accordance with Section 6.8, "Review of Experiments," of the TS.

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Therefore, we find that the proposed amendment to allow the licensee to receive, possess and use 1.0 gram of the byproduct material neptunium 237 within the requirements delineated in Sections 3.6, 3.7 and 6.8 of the IS would not reduce the margin of safety and is acceptable.

Environmental Consideration

We have determined that the amendment 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. We have also determined that this action is not one of those covered by 10 CFR §51.5(a) or (b). Having made these determinations, we have further concluded, that pursuant to 10 CFR §51.5(d) (4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

We have 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 considered and does not involve a significant decrease in a safety margin, 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 operation in the proposed manner, 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 to the health and safety of the public.

Dated: December 22, 1978