



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 10

TO FACILITY LICENSE NO. CX-10

THE BABCOCK & WILCOX COMPANY

CRITICAL EXPERIMENT FACILITY

DOCKET NO. 50-13

Introduction

By letter dated June 26, 1978, the Babcock and Wilcox Company (the licensee) requested an amendment to License No. CX-10 which would permit the use of a sealed americium-beryllium neutron source in place of the sealed plutonium-beryllium neutron sources now being used.

Discussion

The licensee intends to discontinue the use of plutonium-beryllium neutron sources at the Critical Experiment Facility and this change to the license will permit the use of americium-beryllium as the reactor source material. The total amount of americium in the source will be 5 curies or less. The licensee has been using plutonium-beryllium neutron sources in the amount of 10 curies for laboratory instrument calibration as well as the source for reactor operation. The plutonium-beryllium sources for laboratory instrument calibration have been replaced by americium-beryllium which is carried under a byproduct material license for the site.

Evaluation

The Critical Experiment Facility is presently authorized to possess up to 10 curies of plutonium in the form of sealed plutonium-beryllium neutron sources. The licensee desires to replace these neutron sources with a source made of americium-beryllium. Inasmuch as the total amount of radioactivity will be less than the ten (10) curies, which is currently authorized under this license, and the two types of sources are very similar radiologically, we conclude that the substitution of a sealed americium-beryllium source will be acceptable.

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

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that, pursuant to 10 CFR §51.5(d)(4), 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 change does not involve a significant increase in the probability or consequences of accidents previously considered and 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: November 29, 1978