



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

BEAVER VALLEY POWER STATION, UNIT NO. 2

Docket No. 50-412

Introduction

In the Final Environmental Statement Construction Permit stage, Duquesne Light had committed to providing a steam leak collection system around main steam valves larger than 2½ inches and all auxiliary steam valves greater than 8 inches. The purpose for this system was to prevent radioactive gases and airborne iodine from being released via the turbine building exhaust due to steam leakage into the turbine building.

The applicant in its letter dated August 19, 1985 requests to delete the installation of this system. The request is based on the fact that the dose contribution via the turbine building exhaust pathway without the subject system as presented in the FSAR is small, and without it the plant site meets the dose objectives listed in the 10 CFR Appendix I Annex RM-50-2. Because the Beaver Valley site meets the dose requirements, there is no need to install the steam leak collection system.

Discussion and Evaluation

The staff has approved the applicant's request based on the following considerations:

- a. In the final Environmental Statement - Operating License, the site boundary doses were calculated based on activity release predicted for annual operation by the Gale Code described in NUREG 001; this procedure is consistent with Standard Review Plan criteria. The assumptions for steam leakage into the turbine building gave no credit for any steam leak collection system (ie 1700 lb/hr steam leakage)
- b. Even with no steam collection credit, the estimated iodine releases via the turbine building exhaust are smaller (.0052 Ci/yr for I-131) in the FES-OL than listed in the FES-CP (.0064 Ci/yr for I-131).
- c. The total iodine release listed for all pathways in the FES-OL (0.48 Ci/yr for I-131) is greater than listed in the FES-CP (0.14 Ci/yr for I-131); yet, the site boundary doses are still computed to be acceptable as stated in the FES-OL.

Conclusion

Considering the above facts, there is no significant improvement to the health and safety of the general public with the subject system installed. Accordingly, the applicant is not required to install the previously planned Steam Leakage Collection System.

Principal contributor:

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Dated

March 10, 1986