



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 124 TO FACILITY OPERATING LICENSE NO. DPR-66

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

PENNSYLVANIA POWER COMPANY

BEAVER VALLEY POWER STATION, UNIT NO. 1

DOCKET NO. 50-334

INTRODUCTION

By letter dated November 12, 1987, Duquesne Light Company (the licensee) requested that the Technical Specifications for Beaver Valley Power Station, Unit No. 1 be amended relative to the reactor coolant system pressure isolation valves (PIVs). This request was submitted in response to Generic Letter 87-06.

Generic Letter 87-06, "Periodic Verification of Leak Tight Integrity of Pressure Isolation Valves" specified that plant Technical Specifications should include a list of all PIVs along with the description of the testing methods. The PIVs are defined in the Generic Letter as any two valves in series within the reactor coolant pressure boundary which separate the high-pressure coolant system from the attached low pressure system. The potential for a loss-of-coolant accident (LOCA) outside containment from the failure of PIVs (i.e., the "Event V" scenario) had been identified in the Reactor Safety Study (WASH-1400) as a significant contributor to risk. This proposed change, which is in accord with the licensee's June 10, 1987 response to the Generic Letter, would reduce the risk associated with the failure of PIVs.

DISCUSSION AND EVALUATION

Our review of the licensee's requests was performed using the guidelines of Standard Review Plan Section 3.9.6, and the ASME Boiler and Pressure Vessel Code, Section XI. The following proposed changes relating to the Technical Specification for the leak testing of PIVs were reviewed:

- (1) Section 3.4.6.3 is revised to reference the new Table 4.4-3 (see below), which lists the PIVs, their associated systems, and their allowable leakage rates.

- (2) Action Statements 1, 2 and 3 are replaced by a new Action 1, which requires isolation of the high pressure portion of the affected system from the low pressure portion within 4 hours or shutdown the plant if leakage exceeds those specified in Table 4.4-3. This is a more stringent requirement than the previous requirement which allowed up to 24 hours to shutdown the unit if leakage of a PIV exceeds specified limits.
- (3) Surveillance Requirements 4.4.6.3.1 and 4.4.6.3.2 are revised for clarification and consistency. The amended Section 4.4.6.3.1 requires the PIVs to be tested during refueling outage and prior to returning the valve to service after maintenance, repair, or replacement work. The amended Section 4.4.6.3.2 calls for additional leakage testing of Event V valves prior to entering Mode 2 after the plant has been in cold shutdown for 72 hours unless testing has been performed within the previous 9 months.
- (4) Note (a) on page 3/4 4-14a is redesignated with an "\*\*"; and note (a) on page 3/4 4-14b is redesignated with a "\*\*\*" and moved to page 3/4 4-14a.
- (5) The list of PIVs in Table 4.4-3 is expanded to include all PIVs that perform an important pressure isolation function. This change increases the number of listed PIVs from 6 to 21, and is a significant improvement in conservatism.
- (6) Note (a) to Table 4.4-3 is changed so that the acceptable leak rate is 1/2 gpm for each nominal inch of valve size up to a maximum of 5 gpm. This is consistent with our current position as we already stated in Supplement 1 to the Beaver Valley Unit 2 Safety Evaluation Report.
- (7) Note (c) is added to Table 4.4-3, stating that if leakage is continuously monitored during operations, no other leakage testing is required, provided the observations otherwise required for testing are made.
- (8) Note (d) is added to Table 4.4-3, requiring performance of both surveillance requirements 4.4.6.3.2 and 4.4.6.3.1 for Event V valves.

The above revisions do not violate any applicable staff guidelines, and are consistent with the Beaver Valley Unit 2 Technical Specifications already approved. The 15 valves added to Table 4.4-3 are in line with the guidelines of Generic Letter 87-06 and the commitment made by the licensee in its June 10, 1987 response to Generic Letter 87-06. The amended specifications provide additional assurance that adequate surveillance is performed to minimize PIV leaks, and that the reactor coolant system will be maintained in a safe condition. Thus the proposed changes are acceptable.

ENVIRONMENTAL CONSIDERATION

This amendment changes requirements with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20. We have 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 that there is no significant increase in individual or cumulative occupational radiation exposure. We have previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. 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.

CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) 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: April 25, 1988

Principal Contributor:

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