



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 147 TO FACILITY OPERATING LICENSE NO. DPR-66
AND AMENDMENT NO. 23 TO FACILITY OPERATING LICENSE NO. NPF-73

DUQUESNE LIGHT COMPANY

OHIO EDISON COMPANY

PENNSYLVANIA POWER COMPANY

THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

THE TOLEDO EDISON COMPANY

BEAVER VALLEY POWER STATION, UNITS NO. 1 AND 2

DOCKET NOS. 50-334 AND 50-412

INTRODUCTION

Specification 3.4.6.1 requires three independent methods for detection of reactor coolant system (RCS) boundary leakage to be operable. This is in accordance with the recommendations of Regulatory Guide 1.45. Action statements are provided for one inoperable containment radiation monitor (gaseous or particulate) and for the containment sump discharge flow measurement system and narrow-range level instrument inoperable. By letter dated January 12, 1989, and revision dated August 14, 1989, Duquesne Light Company (the licensee, acting as agent for the above utilities) submitted a request to amend the Units 1 and 2 Technical Specifications to permit the radiation monitors (gaseous and particulate) to be inoperable for up to 12 hours. Current technical specifications require entering the action requirements of specification 3.0.3 if both monitors are inoperable.

DISCUSSION AND EVALUATION

For Beaver Valley Units 1 and 2, both the containment particulate and gaseous radiation monitors share a common piping system and pumping arrangement. Because of this design configuration, both radiation monitors must be taken out of service to perform the required periodic calibration and/or maintenance on either radiation monitor. With both monitors inoperable while in operational modes 1 thru 4, per specification 3.0.3, within one hour the unit must initiate a shutdown and be in HOT STANDBY within the next six hours and COLD SHUTDOWN within the following 30 hours. The time required to perform a complete calibration on these radiation monitors is greater than six hours.

The licensee proposed to add an action statement (3.4.6.1.b) to allow both monitors to be inoperable for a sufficient amount of time to complete the required calibration. To ensure the capability to detect RCS leakage during the time period when both radiation monitors are inoperable, the proposed action statement requires that the containment sump instrumentation be operable and a RCS water inventory balance measurement be performed. The new action statement 3.4.6.1.b thus allows a period of 12 hours for both radiation monitors to be inoperable due to calibration and maintenance activities. This period should be sufficient to accommodate the required calibration and/or maintenance. During this period, the containment sump discharge flow measurement system or narrow range level instrument will be operable to indicate any RCS leak. In addition, the new action statement will require that an RCS water inventory balance measurement (specification 4.4.6.2.d) be performed within four hours. The inventory balance measurement is normally performed once every 72 hours. The performance of this measurement within four hours of the onset of inoperability of the radiation monitors is a reasonable compensatory measure. We therefore find the new action statement 3.4.6.1.b acceptable.

Due to the addition of the above action statement, the existing action statements 3.4.6.1.b and c are renumbered 3.4.6.1.c and d, respectively. These changes are editorial and acceptable.

The amendments also revise Table 4.3-3 where it concerns calibration surveillance interval for the containment particulate and gaseous radiation monitors to allow this surveillance to be conducted during the upcoming refueling outage regardless of the interval between refueling outages. The present technical specifications would require the calibration interval between refuelings to be no greater than 18 months, thus necessitating reactor shutdown for the work. During our review of the initially proposed amendment request, we expressed concern with performing the periodic calibration of these radiation monitors during plant operation. When performing this calibration, both monitors would be taken out of service leaving only the containment sump instrumentation available for leak detection. While we agreed that the proposed additional action statement for both radiation monitors being inoperable was necessary for any potential maintenance and re-calibration on an inoperable monitor, we concluded that periodic calibration of these monitors should not be a cause for unnecessary shutdowns. To ensure that these monitors would be calibrated during outages, the channel calibration interval has been revised as stated above. The extension will provide flexibility of plant operation but would have minimal negative effect on the accuracy of the monitors. This change is thus acceptable.

ENVIRONMENTAL CONSIDERATION

This amendments change requirements with respect to the installation or use of facility components located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. We have determined that the amendments involve 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 these amendments involve no significant hazards consideration and there has been no public comment on such finding. Accordingly, these amendments meet 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 these amendments.

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 (3) the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: November 29, 1989

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