UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 218 AND 221 TO FACILITY OPERATING

LICENSE NOS. DPR-44 and DPR-56

PECO ENERGY COMPANY
PUBLIC SERVICE ELECTRIC AND GAS COMPANY
DELMARVA POWER AND LIGHT COMPANY
ATLANTIC CITY ELECTRIC COMPANY

PEACH BOTTOM ATOMIC POWER STATION, UNIT NOS. 2 AND 3

DOCKET NOS. 50-277 AND 50-278

1.0 INTRODUCTION

By letter dated August 27, 1996, the PECO Energy Company (the licensee) submitted a request for changes to the Peach Bottom Atomic Power Station, Unit Nos. 2 and 3, Technical Specifications (TS). The requested changes would revise the minimum allowable charging water header pressure from a value of 955 psig to a value of 940 psig in TS 3.10.8, "Shutdown Margin (SDM) Test-Refueling." The Commission previously issued Amendments 211 and 216 to the Peach Bottom, Units 2 and 3 TS on January 11, 1996. Those amendments revised certain other TSs to reflect a change to the minimum allowable control rod scram accumulator pressure and charging water header pressure from a value of 955 psig to a value of 940 psig. In its August 27, 1996 application, the licensee stated that it inadvertently failed to identify TS 3.10.8 as one of the applicable TSs in its application for amendments 211 and 216. The licensee stated that the technical justification for the change in charging water header pressure was provided in its November 30, 1995 application which resulted in Amendments 211 and 216. The following safety evaluation repeats what was stated in the safety evaluation for Amendments 211 and 216 and is modified to reflect the applicability of the evaluation to TS 3.10.8. Changes to reflect applicability to TS 3.10.8 are underlined.

2.0 EVALUATION

Control rods are provided in a boiling water reactor as part of the reactivity controls systems. The safety objective of the control rods is to rapidly shut down the reactor to prevent fuel damage from any abnormal operating transient. Positioning of the control rods within the reactor, including rapid insertion, is performed with control rod drive mechanisms and the associated control rod drive hydraulic system. A scram accumulator is provided as part of the hydraulic control unit for each control rod. The scram accumulator stores

energy in the form of pressurized water to insert a control rod independent of any other form of energy. Pressure in the accumulator is maintained with a supply of pressurized nitrogen. Pressurized water is provided to the accumulators via the control rod drive hydraulic system charging header.

When reactor pressure is greater than 900 psig, the reactor pressure alone is sufficient to fully insert all control rods if required. However, when reactor pressure is less than 900 psig, reactor pressure alone may not be sufficient to fully insert all control rods. Under these conditions, the pressure in the scram accumulators provides assurance that the rods will insert as required. In order to ensure that accumulator pressure is adequately maintained at all times, TS requirements are imposed on minimum accumulator pressure and minimum charging header pressure.

During the licensee's development of its submittal for improved TSs (Technical Specification Change Request (TSCR) 93-16, submitted September 29, 1994), the licensee proposed a value of 955 psig as the TS limit on scram accumulator and charging water header minimum pressure in TS 3.1.5.B.1, TS 3.10.8, surveillance requirement (SR) 3.1.5.1, SR 3.9.5.2, SR 3.10.8.6 and in the associated TS Bases. The 955 psig value represented a nominal value for the accumulator and charging water header. The staff issued the improved TSs as Amendments 210 and 214 to the Peach Bottom Atomic Power Station operating licenses on August 30, 1995.

The licensee subsequently reviewed General Electric (GE) Service Information Letter (SIL) 429 Revision 1. GE SIL 429 Revision 1, recommends that licensees amend the TSs to allow the accumulator pressure switch setpoint to 940 psig or greater. The accumulator pressure switch causes an alarm to activate in the control room if accumulator pressure drops below the setpoint. The licensee has proposed to change the TS requirement for scram accumulator minimum pressure and charging water header minimum pressure to 940 psig or greater to be consistent with the SIL recommendations, to take full advantage of the setpoint range and to provide more margin to the TS limits during normal operation. The licensee stated that the minimum pressure of the accumulator water required to provide sufficient stored energy to complete a reactor scram is 940 psig.

The staff has reviewed the licensee's application. The proposed changes are consistent with the GE recommendations for the Peach Bottom boiling water reactor product line and are adequate to ensure that control rods fully insert into the core under required conditions. Therefore, the staff finds the proposed changes acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Pennsylvania State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has 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. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (61 FR 55036). Accordingly, the 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 the amendments.

5.0 CONCLUSION

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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