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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO.105TO FACILITY OPERATING LICENSE NO. NPF-14

AMENDMENT NO. 73 TO FACILITY OPERATING LICENSE NO. NPF-22

PENNSYLVANIA POWER & LIGHT COMPANY

ALLEGHENY ELECTRIC COOPERATIVE, INC.

SUSQUEHANNA STEAM ELECTRIC STATION, UNITS 1 AND 2

DOCKET NOS. 50-387 AND 388

## 1.0 INTRODUCTION

By letter dated November 30, 1990, Pennsylvania Power and Light Company and Allegheny Electric Cooperative, Inc. (the licensees) submitted a request for changes to the Susquehanna Steam Electric Station, Unit 1 and 2, Technical Specifications (TS). The requested changes would revise the TSs to be consistent with the guidance in NRC Generic Letter 87-09.

## 2.0 BACKGROUND

On May 4, 1987, the NRC issued Generic Letter (GL) 87-09 to provide alternatives to the requirements of Section 3.0/4.0 of the Standard Technical Specifications (STS) to address three specific problems that had been encountered in the application of these general requirements. The third problem discussed in GL 87-09 "involves two possible conflicts between Specifications 4.0.3 and 4.0.4. The generic letter noted that:

> "a conflict could arise because, when Surveillance Requirements can only be completed after entry into a mode or specified condition for which the Surveillance Requirements apply, an exception to the requirements of Specification 4.0.4 is allowed. However, upon entry into this mode or condition, the requirements of Specification 4.0.3 may not be met because the Surveillance Requirements may not have been performed within the allowed surveillance interval. Therefore, to avoid any conflict between Specifications 4.0.3 and 4.0.4, the staff wants to make clear: (a) that it is not the intent of Specification 4.0.3 that the Action Requirements preclude the performance of surveillances allowed under any exception to Specification 4.0.4; and (b) that the delay of up to 24 hours in Specification 4.0.3 for the applicability of Action Requirements now provides an appropriate time limit for the completion of those Surveillance Requirements that become applicable as a consequence of allowance of any exception to Specification 4.0.4."

When licensees are executing a planned shutdown, many reduce power (e.g. to 15%) and then scram (punch out) the reactor. In this sequence, the reactor is going directly from mode 1 (power operation) to mode 3 (hot shutdown). An

alternative is to gradually reduce power, switching the reactor mode switch from the run or power operation position (mode 1) to the startup/hot standby position (mode 2). In Mode 2, there are a number of instruments that are required to be operable that are not necessary in mode 1. For example, the source range monitors (SRMs) and intermediate range monitors (IRMs) measure low neutron flux level, up to a maximum of 15% power. In fact, during power operation (mode 1), the SRMs and IRMs are fully withdrawn from the core.

As noted previously, GL 87-09 was issued May 4, 1987. The letter noted that the staff had concluded that the proposed revisions would result in improved TS for all plants and "licensees and applicants are encouraged to propose changes to their TS that are consistent with the guidance provided in the enclosures" to the letter. The licensee submitted such an application on October 7, 1987, which was approved by Amendment Nos. 78 and 43, issued April 4, 1988.

By letter dated November 29, 1990, the licensee informed us that, as a result of an internal audit, they had identified certain instruments that had not been addressed in GL 87-09 that cannot be tested until after entry into an Operational Condition for which the Surveillance Requirements apply and that do not have exceptions to the requirements of Specification 4.0.4 provided. The licensee requested a Temporary Waiver of Compliance from the requirements of TS 3.0.4 and 4.0.4. By letter dated November 30, 1990, PP&L followed up the request with an application for a permanent change to the TSs to correct the problem with section 3.0.4 and 4.0.4. The application is the subject of this safety evaluation. In a letter to PP&L, also dated November 30, 1990, we informed the licensee that we recognized that TSs 3.0.4 and 4.0.4 imposed an impractical requirement that was not warranted to assure plant safety but that the proposed TS changes did not meet the requirements of 10 CFR 50.91 to qualify for a waiver. Instead, we recommended to the Region that we exercise regulatory discretion pending processing of the amendment application. As a followup to the situation identified by the licensee, we noted that consideration was being given to issuing a generic communication, such as a supplement to GL 87-09, to inform other licensees that they should promptly propose changes to their TSs to avoid the situation identified by PP&L.

By letter dated January 4, 1991, the licensee requested an extension of the relief granted by our letter of November 30, 1990 until the NRC staff completes its review of the amendment application which is the subject of this safety evaluation. In our letter of the same date, we informed the licensee that since the rationale which formed the basis for initially granting relief remains unchanged, the effectiveness of NRCs letter of November 30, 1990 is hereby extended until NRC completes review of the request for license amendment, also dated November 30, 1990.

## 3.0 EVALUATION

As described in the application, the proposed changes to the TSs are to add a sentence to Specification 3.3.1, 4.3.1, 3.3.6, 4.3.6, 3.3.7.6, 4.3.7.6 and the Bases for 3.0.4 to provide an exception to 3.0.3, 4.0.3 or 4.0.4 for the IRMs SRMs, and APRMs for entry in Operational Condition 2 or 3 from Operational Condition 1. In Operational Condition 1, the design of these instrument circuits prevents the performance of channel functional tests or calibrations due to interlocks with the reactor mode switch that bypass their respective scrams or rod block function in Operational Condition 1. Furthermore, as discussed previously, the SRMs and IRMs are fully withdrawn from the core while at power (Operational Condition 1). It would take extraordinary activities such as temporary circuit alterations (TCAs), use of jumpers and placing the unit in a half-scram condition to perform channel functional tests at power, which would introduce the risk of a transient or accident.

While there is a very low safety significance in allowing the reactor mode switch to be changed from Opcon 1 to Opcon 2 or 3 without first performing channel functional tests or calibrations, it is important to perform these surveillances as soon as the plant is in a condition where the testing is feasible. In GL 87-09, the NRC staff position was that a 24 hour allowance to permit a delay in completing these surveillance requirements was reasonable and appropriate. This 24 hour delay period has already been incorporated in the licensee's TSs and would become applicable in the situation discussed herein.

The proposed changes to the TSs are in conformance with the intent and guidance in GL 87-09 and are acceptable.

## 4.0 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.

## 5.0 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. 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.

## 6.0 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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