



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 119 TO FACILITY OPERATING LICENSE NO. NPF-11 AND
AMENDMENT NO. 104 TO FACILITY OPERATING LICENSE NO. NPF-18

COMMONWEALTH EDISON COMPANY

LASALLE COUNTY STATION, UNITS 1 AND 2

DOCKET NOS. 50-373 AND 50-374

1.0 INTRODUCTION

By letter dated April 14, 1997, Commonwealth Edison Company (ComEd, the licensee) proposed changes to Technical Specification (TS) 3/4.3.8, "Feedwater/Main Turbine Trip System Actuation Instrumentation." The proposed limiting condition for operation (LCO) would require an additional instrument channel to be operable based on a modification which will add an instrument channel to the actuation logic. The licensee proposes to revise the action statement for inoperable instrument channels to be more appropriate for the modified design and consistent with Improved Standard Technical Specifications.

The Feedwater/Main Turbine Trip System is designed to trip the feedwater pumps and the main turbine when high water level, indicative of a feedwater controller failure, is sensed in the reactor vessel. This action prevents overfilling the reactor vessel which may result in a high pressure liquid discharge through the safety/relief valve discharge lines.

The Feedwater/Main Turbine Trip System consists of three instruments with auxiliary relay contacts arranged in a two-out-of-three trip logic. Two of the instruments (associated with trip channels B and C) are located on one narrow range variable water leg. Therefore, failure of this water leg instrument line would result in the loss of the trip function due to two level transmitters failing downscale. The licensee has decided to perform a design change to add an additional high level trip signal from a separate sensor to the Feedwater/Main Turbine trip logic. The additional sensor will be added to trip channel C, thereby maintaining three trip channels. The two-out-of-three actuation logic will be maintained. However, because another instrument channel is required to prevent a single failure of the system, the TS must be revised to require four channels operable as opposed to the current value of three.

2.0 EVALUATION

TS Table 3.3.8-1 requires three operable channels per trip system. The licensee proposes to change this number to four to account for the additional sensor that will be added. The addition of the sensor is a conservative action that eliminates a potential single failure of the trip and is acceptable.

Current TS 3.3.8, Action b, requires that with one feedwater/main turbine trip system instrument channel inoperable, the inoperable channel must be placed in the tripped condition or restored to operable within 7 days. With two channels inoperable, at least one inoperable channel must be placed in the tripped condition within 2 hours and either inoperable channel must be restored within 72 hours. These actions ensure that automatic trip capability is maintained except for a maximum of 2 hours and redundancy is maintained except for a maximum of 7 days.

The licensee proposes to revise the action statements to make them more appropriate for the modified design. The revised action statement would require that with one or more channels inoperable, within 2 hours, the licensee must verify that sufficient channels remain operable or tripped to maintain trip capability. Trip capability will be maintained with a minimum of one channel operable and one channel tripped. Therefore, similar to the current TS, automatic trip capability will be maintained except for a maximum of 2 hours. The proposed action statement will also require that the inoperable channels be placed in the tripped condition or restored to operable within 7 days. Therefore, redundancy is maintained except for a maximum of seven days, consistent with the current TS. The proposed TS differs from the current TS in that it does not require a channel to be restored within 72 hours. Under the proposed TS, the licensee may have up to three instrument channels inoperable for up to 7 days provided that two trip channels are available (operable or tripped) to maintain trip capability. This will not affect the functioning of the trip system. The proposed action statement and AOT are consistent with TS 3.3.2.2, "Feedwater and Main Turbine High Water Level Trip Instrumentation" of NUREG-1433, "Standard Technical Specifications for General Electric Plants, BWR4."

The current TS action statement for two inoperable channels would be unnecessarily restrictive in the proposed configuration for the case in which both instrument channels of trip channel C are inoperable. The current TS would require one of the channels to be restored to operable within 72 hours or the plant would be required to be in Startup within 6 hours. This action would be unnecessarily restrictive because two trip channels (A and B) would still exist to provide automatic trip capability.

This trip system is not required to meet single failure criteria. This is a non-safety and non-divisional trip actuation which is required in the run mode so that high integrity is maintained. The trip system is not designed to any applicable Institute of Electrical and Electronics Engineers (IEEE) standards, Regulatory Guides, or 10 CFR Part 50, Appendix A, General Design Criteria.

Based on the above, the revised action statements for TS 3.3.8 are acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Illinois 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 the 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 (62 FR 33120). 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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Date: July 29, 1997