



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 122 TO FACILITY OPERATING LICENSE NO. NPF-3
TOLEDO EDISON COMPANY
AND
THE CLEVELAND ELECTRIC ILLUMINATING COMPANY
DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1
DOCKET NO. 50-346

1.0 INTRODUCTION

On January 8, 1985, the Commission issued Amendment No. 83 which imposed License Condition 2.C.(3)(t) relating to the Startup Feedwater Pump (SUFP). The License Condition was imposed following the discovery that operation of the SUFP potentially could jeopardize the Auxiliary Feedwater Pumps (AFWP) in the event of failure of a non-seismic Turbine Plant Cooling Water (TPCW) line or a moderate/high energy feedwater line. The License Condition imposed operational restrictions which included 1) stationing an operator in the SUFP/AFWP area during SUFP operation, 2) isolating the TPCW and SUFP piping from outside the AFWP room when the AFW system is required to be operable and the SUFP is not in operation, and 3) installing a new SUFP prior to the start of Cycle 6.

On July 15, 1988, Toledo Edison Company submitted an application proposing to remove the License Condition and incorporating Item 2 of the License Condition as a Technical Specification (TS) Surveillance Requirement. Additionally, a clarification of the applicability of the provisions of TS Section 4.0.4 was proposed.

2.0 DISCUSSION AND EVALUATION

In late 1986, the function of the SUFP was replaced with a new Motor Driven Feedpump (MDFP) located in the turbine building. The installation of the MDFP is discussed in the Davis-Besse restart safety evaluation, NUREG-1177. The design features of the MDFP system were reviewed and accepted by the staff prior to approving restart of the facility following the event of June 9, 1988. Therefore, Item 3 of the License Condition has been satisfied.

To expedite the installation and operability of the MDFP, certain electrical equipment which had provided power to the SUFP was used to power the MDFP, thereby rendering the SUFP temporarily inoperable. Prior to the end of the

fifth refueling outage, the SUFP will be repowered providing an additional means to remove decay heat through the steam generators. Item 2 of the License Condition is proposed to be replaced by the addition of Surveillance Requirement 4.7.1.2.a.4.

This added surveillance requirement would specify the specific valves (two valves in the SUFP suction piping, one valve in the discharge piping, and one each in the TPCW supply and return lines) which are to be verified closed at least every 31 days. By maintaining these valves closed, the non-seismic and high/moderate energy lines associated with the SUFP are isolated from outside the AFWP room. Thus, the concerns associated with these lines when the unit is in Modes 1, 2, or 3 are eliminated. The new surveillance requirement meets the intent of Item 2 of the License Condition. Toledo Edison Company also has proposed to change Basis 3/4.7.1.2 by adding an explanation for the purpose of the new surveillance requirement.

Toledo Edison Company has stated that the SUFP will not be used while the facility is in operational Modes 1, 2, or 3 (these are the modes when AFW is required), unless all other efforts have failed to re-establish feedwater using the AFWP's, Main Feed Pumps (MFP's), or the MDFP. Toledo Edison Company further has stated that plant procedures will be provided for use of the SUFP in the event both MFP's, both AFWP's, and the MDFP fail. Under such extreme conditions, there would not be a concern for TPCW or SUFP piping failures with respect to the AFWP's. Inasmuch as: 1) the SUFP will not be used in Modes 1, 2, or 3 except under the conditions discussed above; 2) the proposed Surveillance Requirement 4.7.1.2.a.4 would prohibit the use of the SUFP in normal operation; and 3) the licensee committed to establish plant procedures for the use of the SUFP under extreme emergency conditions, the staff concludes that Item 1 of the License Condition is no longer required. The staff has reviewed the proposed deletion of License Condition 2.C.(3)(t) and proposed Surveillance Requirement 4.7.1.2.a.4. Based on the discussion above, the staff finds the proposed changes acceptable.

Toledo Edison Company also proposed to clarify the applicability of TS Section 4.0.4. Currently, a footnote to the Applicability portion of TS Limiting Condition for Operation 3.7.1.2 indicates that the provision of Section 3.0.4 is not applicable for entry into Mode 3. The intent of this footnote is to permit entry into Mode 3 upon unit restart to permit the performance of surveillance requirements necessary to declare the AFW systems operable. This is necessary when starting up because Mode 3 must be entered to generate steam to operate the AFWP turbines in order to perform the surveillance.

The proposed change would 1) delete the footnote and include a sentence in Surveillance Requirements 4.7.1.2.a.1 and 4.7.1.2.b.2 to specify that the provisions of Section 4.0.4 are not applicable for entry into Mode 3, and 2) delete the requirement to perform the AFW flow path verification prior to entering Mode 3 from Surveillance Requirement 4.7.1.2.b.3.

Section 4.0.4 states:

Entry into an operational mode or other specified applicability condition shall not be made unless the Surveillance Requirement(s) associated with the Limiting Condition for Operation have been performed within the stated surveillance interval or as otherwise specified.

This change clarifies the meaning of the exemption since Section 3.0.4 applies to Limiting Conditions for Operation, whereas 4.0.4 applies to surveillance requirements. Since it is the surveillance requirement that cannot be accomplished without the exemption, Section 4.0.4 is the correct section to cite. The staff agrees with this clarification.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves changes to 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 and a change to a surveillance requirement. The staff has 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. The Commission has 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 nor environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

The staff 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, 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.

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Dated: September 30, 1988