

SAFETY EVALUATION
AMENDMENT NO. 11 TO MPF-10
SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 2
DOCKET NO. 50-361

Introduction

By letter dated Friday, December 3, 1982, Southern California Edison Company, on behalf of itself the other licensees (San Diego Gas and Electric Company, the City of Anaheim and the City of Riverside), requested a revision to Technical Specification 3/4.3.4, Turbine Overspeed Protection. The proposed revision would modify the limiting condition for operation to allow steam flow in low pressure steam leads in which an inoperative reheat intercept valve is located (said steam flow not to exceed one hour duration per weekly surveillance period). Our evaluation of the proposed revision is given below.

Evaluation

During surveillance, it was determined that reheat intercept valves 2200 O and 2200 T, to LP cylinders 2 and 3, respectively, were inoperative. The valves cannot be fully closed. In accordance with Technical Specifications, reheat stop valves 2200 R and 2200 S were closed, thereby isolating one steam lead, each, to LP cylinders 2 and 3. There are two steam leads to each of three low pressure cylinders. In order to conform to Technical Specifications, the licensees must conduct surveillance on the valves in the unaffected low pressure steam leads; i.e., the valves must be cycled completely (open-close-open) on a weekly basis. If this were to be done under present conditions, it would result in termination of all steam flow to LP cylinders 2 and 3 for a short period of time. The turbine manufacturer has stated that terminating steam flow to an LP cylinder could cause serious damage to the turbine rotor. To avoid this condition, the licensees have requested that the Technical Specifications be revised to allow the affected low pressure steam leads to be reopened during the weekly valve surveillance for a period not to exceed one hour.

The functions of the reheat stop and intercept valves in the low pressure steam leads is to prevent a turbine overspeed with attendant missile generation potential following an electrical load rejection and/or a turbine trip. The licensees have provided results of calculations by the turbine manufacturer which show that turbine speed following a load rejection from current power levels (approximately 50% reactor power) can be safely controlled using the high pressure valves only. Therefore, failure of one or more low pressure valves would not result in unacceptable turbine overspeed.

The staff concurs with the licensees regarding turbine overspeed potential following a load rejection from present power levels. Based on this, the staff agrees that a waiver of the Technical Specifications as detailed below would not represent an unacceptable risk to the public health and safety.

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Procedures for Weekly Surveillance of Reheat Stop and Intercept Valves:

1. For LP Cylinder No. 3
 - a. Cycle valve No. UV 2200 S Open-Closed-Open.
 - b. Cycle valves UV 2200 V and UV 2200 U in the normal sequence.
 - c. With valves UV 2200 V and UV 2200 U open, reclose valve UV 2200 S.
2. For LP Cylinder No. 2
 - a. Cycle valve UV 2200 R Open-Closed-Open.
 - b. Cycle valve UV 2200 N and UV 2200 P in the normal sequence.
 - c. With valves UV 2200 N and UV 2200 P open, reclose valve UV 2200 R.
3. For LP Cylinder No. 1
 - a. Cycle valves in both steam leads in the normal sequence.
4. Valve surveillance should be done for one LP cylinder at a time. No special sequence for LP cylinders is required.
5. These procedures will be in effect only until completion of 50% power testing.
6. In the event of an additional valve malfunction, the Technical Specification requirements must be re-reviewed by the staff.
7. The total time that valves UV 2200 R and UV 2200 S will remain open should not exceed one hour for each weekly surveillance.

Environmental Consideration

We have determined that this amendment does not authorize a change in effluent types or total amount nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that this amendment involves action which is insignificant from the standpoint of environmental impact and pursuant 10 CFR Section 51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

Based upon our evaluation of the proposed changes to the San Onofre, Unit 2 Technical Specifications, we have concluded that: (1) because this amendment does not involve a significant increase in the probability or consequences of accidents previously considered, does not create the possibility of an accident of a type different from any evaluated previously, and does not

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involve a significant decrease in a safety margin, this amendment does not involve a significant safety hazards consideration; (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) 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 public. We, therefore, conclude that the proposed changes are acceptable.

Dated: DEC 7 1982

*W. J. ...
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