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

March 5, 1987

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 96 TO PROVISIONAL OPERATING LICENSE NO. DPR-13

SOUTHERN CALIFORNIA EDISON COMPANY AND

SAN DIEGO GAS ELECTRIC COMPANY

SAN ONOFRE NUCLEAR GENERATING STATION, UNIT NO. 1

DOCKET NO. 50-206

1.0 INTRODUCTION

By letters dated November 7, 1985 and April 7, 1986, Southern California Edison Company and San Diego Gas Electric Company (the licensees) proposed changes to the San Onofre Nuclear Generating Station, Unit No. 1 Technical Specifications (TS).

The amendment revises the TS requirements for primary coolant iodine spiking and deletes the requirement for primary coolant system activity sampling in modes 5 and 6 (cold shutdown and refueling).

In addition, this amendment corrects an administrative error by restoring a definition to Section 1 that was inadvertently deleted by the issuance of Amendment 83 on November 2, 1984.

2.0 IODINE SPIKING REQUIREMENTS

2.1 DISCUSSION

On September 27, 1985, the NRC issued Generic Letter 85-19, "Reporting Requirements on Primary Coolant Iodine Spikes." In that letter, the staff concluded that licensees could request TS changes to allow:

(1) a change in reporting requirements for iodine spiking from a short-term report to an item included in the annual report and

(2) deletion of the requirement for plant shutdown if coolant iodine activity limits are exceeded for 800 hours in a 12-month period.

The generic letter included model Technical Specifications to implement these changes.

By letter dated April 7, 1986, Southern California Edison (SCE) submitted an application for amendment to the license in response to this generic letter. The specific changes requested by SCE are as follows:

(1) move definition of $\bar{E}$ from TS 3.1.1 to Section 1.0 as Definition 1.32.

(2) delete TS Action Statement 3.1.1.A, which presently contains the requirement that operation with activity above 1 microcurie per gram not exceed 800 hours in a 12 month period.

(3) renumber TS Action Statements 3.1.1.B through D as A through C.

(4) revise existing TS Action Statement 3.1.1.C by deleting the requirement for a 30 day report when the activity limits are exceeded.

(5) revise the basis for TS 3.1.1 to remove discussion regarding 800 hours of operation with elevated activity.

(6) revise reference in Table 4.1.2 for definition of $\bar{E}$ to Section 1.32 instead of 3.1.1.

(7) add a paragraph to Section 6.9.1.5 (Annual Reports) describing the submittal in the annual report of results of specific activity analysis in which the limits of TS 3.1.1 were exceeded.

2.2 EVALUATION

Limits are placed on specific activity in the primary coolant to minimize radiological consequences of coolant release to the atmosphere, such as might result from a steam generator tube rupture. This event has been analyzed for San Onofre for two cases: (1) with the coolant iodine concentration at the TS equilibrium limit (i.e., 1μCi/gm Dose Equivalent I-131) and (2) with the coolant iodine concentration at the TS maximum limit (60μCi/gm DE I-131). The calculated radiological consequences for both cases meet the applicable staff acceptance limits.

However, the offsite doses from a tube rupture event are higher for the second case, and, in an effort to minimize offsite dose, TS were implemented to limit the period of time of plant operation above the equilibrium limit to 800 hours in a 12-month period.

More recently, as noted in Generic Letter 85-19, the staff has determined that the existing requirements to shut down a plant if coolant iodine activity limits are exceeded for 800 hours in a 12-month period can be eliminated. The quality of nuclear fuel at San Onofre 1 has been such that normal coolant iodine activity (i.e., in the absence of iodine spiking) is well below the limit. Appropriate actions would be initiated long before accumulating 800 hours above the iodine activity limit. In addition, 10 CFR 50.72(b)(1)(ii) requires the NRC to be immediately notified of fuel cladding failures that exceed expected values or that are caused by unexpected factors. Therefore, this Technical Specification limit is no longer considered necessary on the basis that proper fuel management by licensees and existing reporting requirements should preclude ever approaching the limit.

The staff also determined that the reporting requirements related to primary coolant iodine spiking can be reduced from a short-term report (Special Report or Licensee Event Report) to an item which is to be included in the Annual Report. The information to be included in the Annual Report is similar to that previously required in the Licensee Event Report but has been changed to more clearly designate the results to be included from the specific activity analysis and to delete the information regarding fuel burnup by core region.

The staff has reviewed the proposed changes to the San Onofre 1 TS against the guidance provided by GL 85-19. The TS changes requested by the licensees are consistent with the guidance and implement the staff position in the generic letter. Therefore, the staff finds these changes acceptable.

3.0 REACTOR COOLANT SYSTEM ACTIVITY SAMPLING

3.1 DISCUSSION

By letter dated November 7, 1985, the licensees requested a change to Table 4.1.2, "Minimum Equipment Check and Sampling Frequency" to delete the requirement to obtain a gross activity sample of the reactor coolant at least once per 72 hours while in Modes 5 and 6. The licensees noted that this requirement imposes scheduling constraints on performance of containment integrated leak rate tests (ILRT), since a sample cannot be taken while an ILRT is in progress.

3.2 EVALUATION

The reason for sampling primary coolant for determination of gross radioactivity is to assure that specific activity limits are not exceeded. The specific activity of the primary coolant is limited to ensure that a steam generator tube rupture would not produce off-site doses in excess of a small fraction of the 10 CFR Part 100 limits. The precautionary action to be taken if the specific activity limit is exceeded is to "be in HOT STANDBY with Tavg less than 535°F within 6 hours." This is considered adequate because if the average primary coolant temperature is below 535°F, a steam generator tube rupture would not open the atmospheric steam relief valves and would, therefore, not produce a significant release of radioactivity to the atmosphere.

The requirement for periodic sampling for determination of gross radioactivity during cold shutdown and refueling serves no function for this accident. In these modes, the reactor coolant system is at low pressure and thus there is little potential for transfer of reactor coolant system activity. This conclusion is reflected in the Standard Technical Specifications for Westinghouse plants (NUREG-0456, Rev. 5). The Standard Technical Specifications (Table 4.4-4) only require periodic sampling and analysis for gross radioactivity during Operational Modes 1 and 4. The staff, therefore, concludes that deletion of activity sampling in Modes 5 and 6 is acceptable.

4.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change 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 the surveillance requirements. 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 or environmental assessment need be prepared in connection with the issuance of this amendment.

5.0 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.

6.0 ACKNOWLEDGEMENT

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