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September 21, 1992

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U. S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, D.C. 20555

Gentlemen:

Subject:

Docket No. 50-206

Operation and Surveillance Requirements for Permanently Defueled Condition for San Onofre Nuclear Generating Station, Unit 1

Reference: 1)

- Letter, F. R. Nandy (SCE) to Document Control Desk (NRC), "Amendment Application No. 180 Supplement, 480 Volt System Reconfiguration and Equipment Operability During Cycle 11 Refueling Outage," June 18, 1990.
- 2) Letter, J. E. Tatum (NRC) to Harold B. Ray (SCE), "Issuance of Amendment No. 132 to Provisional Operating License, San Onofre Nuclear Generating Station, Unit No. 1 (TAC No. 76808)," July 16, 1990.

The current Technical Specifications for San Onofre Unit 1 (SONGS 1) do not recognize the defueled condition, and therefore, most of the SONGS 1 Technical Specifications will not apply once the fuel is off-loaded to the spent fuel pool (SFP). This letter identifies the Technical Specifications which will be administratively extended to apply to the defueled condition, as well as additional controls we will implement to ensure plant safety when defueled. The administrative controls specified in this letter will remain in force until Permanently Defueled Technical Specifications (PDTS) are submitted by Southern California Edison (SCE) and approved by the NRC.

# SCHEDULE FOR PLANT SHUTDOWN/DEFUELING

On August 11, 1992, the California Public Utilities Commission approved the permanent shutdown of SONGS 1, after the current fuel cycle. We plan to permanently shut down the plant in November, 1992, with permanent defueling of the reactor vessel to be completed by March, 1993.

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# OPERATION AND SURVEILLANCE REQUIREMENTS AFTER DEFUELING

The SONGS 1 Technical Specifications do not address a defueled configuration. Most of the existing Technical Specifications are applicable only through Mode 6 which is defined, in part, as "reactor vessel head unbolted or removed and fuel in the vessel." The following sections of this letter describe the operation and surveillance administrative controls we will implement during the defueled condition until the NRC has approved the PDTS. These controls are similar to those which were effective during the full core off-load that was performed during the 1990-91 thermal shield repair outage (Reference 1).

### <u>Technical Specification Requirements</u>

The specific Technical Specifications that are relevant when defueled are listed in Enclosure 1. These specifications will be implemented in the defueled condition as noted in the enclosure.

Our review of the SONGS 1 Technical Specifications to determine their applicability to the defueled condition revealed that most of the existing Technical Specifications do not apply for a permanently defueled plant. For example, the decay heat removal requirements of Technical Specification 3.8.A are unnecessary when defueled since removal of decay heat from the reactor vessel is not needed once all the fuel has been removed from the reactor. The Technical Specifications which are not relevant when defueled and our bases for their exclusion are listed in Enclosure 2.

#### Additional Administrative Controls

In addition to the above Technical Specification related requirements, we will implement other administrative controls to ensure adequate SFP cooling during the defueled condition. These administrative controls will become effective once all of the fuel has been removed from the reactor and stored in the SFP pool and include the following:

- 1. Continue to maintain the SFP temperature below 150°F in accordance with our current licensing basis for the maximum normal heat load case (Reference 2).
- 2. Maintain one train of SFP cooling operable at all times. Both trains of SFP cooling will normally be maintained operable except for periods when one train is out of service for maintenance purposes. A train of SFP cooling includes one SFP cooling pump aligned with the SFP heat exchanger, one component cooling water (CCW) pump aligned with the SFP heat exchanger and with one CCW heat exchanger, and one salt water cooling (SWC) pump aligned with the same CCW heat exchanger. If the operable cooling train becomes inoperable, action will be initiated within one hour to return a train to operable status and place a train in service as required to maintain the SFP temperature below 150°F. Operation will be verified once a shift when a train is in service.

Additionally, the inservice test program for each of the two trains of SFP cooling will be continued when defueled.

3. Maintain at least 50,000 gallons of water in the refueling water storage tank (RWST), or in an equivalent water source, upon completion of fuel handling operations as the normal source of seismically qualified makeup for the SFP. In the unlikely event that pool boiling occurs, this water volume is sufficient to replace pool evaporative losses (maximum boiloff rate of 40 gpm as discussed in UFSAR Section 9.1.3.2) until cooling is restored or until an alternate source of makeup is connected to the SFP. The RWST water need not be borated since our analyses demonstrate that no boration of the SFP is necessary to maintain the required shutdown margin.

The RWST is currently experiencing leakage due to corrosion of the tank wall. An evaluation of its capacity for long-term service to support SFP makeup is under way. The RWST will be repaired, as necessary to meet seismic requirements, or an alternate seismically qualified makeup supply will be provided. The primary makeup water tank and the service water reservoir will also be available as sources of SFP makeup.

With the above operational requirements in place, SONGS 1 safety will be maintained during the defueled condition.

# Surveillance Requirements

We will implement existing Technical Specification surveillance requirements for systems, components, and functions that are maintained operable when defueled. For example, this includes the maintenance and surveillance activities for the emergency diesel generators (EDG) that are required to be performed on a daily, monthly, or as required basis. However, as shown on Enclosure 1, page 1.1, and Enclosure 2, page 2.3, we will not maintain the EDG automatic start feature since that capability is not considered necessary for the defueled condition. Additionally, we are evaluating the major EDG maintenance and surveillances that are normally performed in accordance with Technical Specification 4.4.H at the end of a fuel cycle during a refueling outage. Our plans regarding such end-of-cycle maintenance and surveillances will be included in our proposed PDTS.

The Technical Specification surveillances that will be performed during the defueled condition are listed in Enclosure 1. We will not perform surveillances on equipment that is not required when defueled as allowed by Technical Specifications 4.0.1 and 4.0.3.

# PERMANENTLY DEFUELED TECHNICAL SPECIFICATION SUBMITTAL SCHEDULE

The PDTS are necessary to define the requirements for long-term maintenance of SONGS 1 in a shutdown and permanently defueled condition. The proposed PDTS are scheduled for submittal to the NRC by December 1, 1992. The operation and surveillance requirements for the defueled condition that are described in this letter will remain in effect during the period between reactor defueling and NRC approval of the PDTS.

If you have any questions on this matter, please let me know.

Very truly yours.

RM Beenl

**Enclosures** 

J. B. Martin, Regional Administrator, NRC Region V cc: George Kalman, NRC Senior Project Manager, San Onofre Unit 1

J. O. Bradfute, NRC Project Manager, San Onofre Unit 1 C. W. Caldwell, NRC Senior Resident Inspector, San Onofre Units 1, 2&3

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