

BEFORE THE UNITED STATES NUCLEAR REGULATORY COMMISSION

Application of SOUTHERN CALIFORNIA EDISON)
COMPANY and SAN DIEGO GAS & ELECTRIC COMPANY)
for a Class 104(b) License to Acquire,)
Possess, and Use a Utilization Facility as)
Part of Unit No. 1 of the San Onofre Nuclear)
Generating Station)

DOCKET NO. 50-206

Amendment Application
No. 212

SOUTHERN CALIFORNIA EDISON COMPANY and SAN DIEGO GAS & ELECTRIC COMPANY,
pursuant to 10 CFR 50.90, hereby submit Amendment Application No. 212.

This amendment application consists of Proposed Change No. 264 to the Unit 1
Operating (Possession Only) License No. DPR-13. Proposed Change No. 264 will
revise Section 2.F of the Operating License to change the license expiration
date from March 2, 2004, to May 12, 2024. The purpose of this change is to
accommodate the SAFSTOR decommissioning alternative for Unit 1.

The proposed change has been determined to have no adverse impact on the ability
of Unit 1 to remain in a safe and permanently defueled condition.

Based on the significant hazards analysis provided in the "Description and
Significant Hazards Consideration Analysis of Proposed Change No. 264 to
Operating (Possession Only) License No. DPR-13", it is concluded that (1) the
proposed change does not involve a significant hazards consideration as defined
in 10 CFR 50.92; (2) there is reasonable assurance that the health and safety of

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the public will not be endangered by the proposed change; and (3) this action will not result in a condition which significantly alters the impact of the station on the environment as described in the NRC's Final Environmental Statement and the NRC's subsequent environmental assessment dated September 16, 1991.

Respectfully submitted,
SOUTHERN CALIFORNIA EDISON COMPANY

By: *Richard M. Rosenblum*
Richard M. Rosenblum
Vice President

State of California
County of Orange

On 9/6/94 before me, BARBARA A. MCCARTHY/NOTARY PUBLIC, personally appeared RICHARD M. ROSENBLUM, personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature *Barbara A. McCarthy*



**DESCRIPTION AND SIGNIFICANT HAZARDS CONSIDERATION ANALYSIS
OF PROPOSED CHANGE NO. 264
TO OPERATING (POSSESSION ONLY) LICENSE NO. DPR-13**

This proposed change requests an extension in the term of the San Onofre Nuclear Generating Station, Unit 1, (SONGS 1), Operating (Possession Only) License. The extension is necessary to accommodate the SAFSTOR decommissioning alternative, which is being planned for the unit. The SAFSTOR period is expected to continue until some time after SONGS 2 and 3 have permanently ceased operation in 2013. This will permit SCE to integrate the dismantlement and decommissioning of all three SONGS units.

This change affects only Section 2.F of the SONGS 1 license.

Existing License Section 2.F

The existing license section 2.F reads as follows:

"This amended license is effective as of the date the licensee provides certification that operation of the reactor has been permanently terminated and all special nuclear material as reactor fuel has been permanently removed from the reactor and stored in the spent fuel pool. This amended license shall expire at midnight on March 2, 2004."

Proposed License Section 2.F

The proposed license section 2.F will read as follows:

"This amended license is effective as of the date the licensee provides certification that operation of the reactor has been permanently terminated and all special nuclear material as reactor fuel has been permanently removed from the reactor and stored in the spent fuel pool. This amended license shall expire at midnight on May 12, 2024."

1.0 Description of Change

The requested extension will change the expiration date of the SONGS 1 Operating (Possession Only) License from March 2, 2004, to May 12, 2024. This change takes into account the fact that the San Onofre site easement granted by the U.S. Government expires on May 13, 2024. The longer license term is needed to fully support the SAFSTOR decommissioning alternative. Details of our proposal regarding SAFSTOR will be included in the SONGS 1 decommissioning plan which must be submitted to the NRC by November 30, 1994. In essence, under this alternative, (a) SONGS 1 will be maintained in a dormant safe storage condition until some time after SONGS 2 and 3 have permanently ceased power operations, and (b) throughout that time, the Permanently Defueled Technical Specifications will be in effect.

2.0 Discussion

SONGS 1 was issued a Full-Term Operating License (OL) by the NRC on September 26, 1991. The OL was due to expire on March 2, 2004, 40 years after the issuance of the SONGS 1 Construction Permit. Before granting the OL, the

NRC performed a comprehensive reevaluation of the plant design to reconfirm its safety in light of historical operating data and updated design standards that have existed since the plant was built in the 1960s.

In 1992, the California Public Utilities Commission, the San Diego Gas and Electric Company, and the Southern California Edison Company reached an agreement that led to the decision to decommission SONGS 1. As a result, SONGS 1 was permanently shut down on November 30, 1992, at the end of Fuel Cycle 11. Since then, SCE has defueled the reactor, stored the spent fuel in the unit's spent fuel pool, developed and implemented the Permanently Defueled Technical Specifications (PDTS), and proceeded with plant closure activities and decommissioning planning. Upon SCE's application, the NRC amended the OL to an Operating (Possession Only) License. That license became effective on March 9, 1993, and is due to expire on March 2, 2004.

The SONGS 1 PDTS were approved by the NRC on December 28, 1993. Their purpose is to ensure that spent fuel will be stored safely in the unit's spent fuel pool. To accomplish this, the PDTS contain requirements such as limiting conditions for operation, surveillances, and safety limit violation reporting.

The following sections describe the basis for selecting the SAFSTOR decommissioning alternative and the impact of the site easement on decommissioning planning.

2.1 Selection of SAFSTOR

As part of decommissioning planning, SCE has evaluated the three decommissioning alternatives, SAFSTOR, DECON, and ENTOMB, described in NUREG-0586, "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities," dated August, 1988. For the reasons listed below, SAFSTOR followed by dismantlement is the preferred decommissioning alternative.

1. The SAFSTOR period allows sufficient time for a low level radioactive waste disposal facility to be developed.
2. Dismantlement and decontamination of the entire SONGS site is more cost effective than decommissioning of SONGS 1 independently. (SONGS 2 and 3 are licensed to operate until the year 2013.)
3. The SAFSTOR period provides a storage facility for SONGS 1 spent fuel until such time that an independent spent fuel storage installation (ISFSI) becomes a viable option, or DOE facilities are available for off-site storage.
4. The SAFSTOR period will allow for decay of short lived radioisotopes, thus reducing exposure to decommissioning workers.

2.2 Impact of Site Easement on Decommissioning Planning

In May 1964, an easement was granted by the U.S. Government for the use of the property on which the San Onofre units are built. This easement expires on May 12, 2024. Under the terms of the easement, all station structures and improvements must be removed at the end of the service life of the San Onofre units, if so desired by the government, and the land restored to a satisfactory condition.

The easement terms apply to all existing structures and improvements. Due to the continuing operation of SONGS 2 and 3 until 2013, it is currently planned that all three units will be dismantled and decommissioned and the site returned to a satisfactory condition some time between 2013 and May 12, 2024. It is planned that the dismantlement and decommissioning of SONGS 1 will be completed by the end of 2023. In view of these plans, SCE requests that the expiration date of the SONGS 1 license be extended to coincide with the expiration date of the site easement.

3.0 Significant Hazards Consideration Analysis

As required by 10 CFR 50.91(a)(1), this analysis is provided to demonstrate that this proposed change does not represent a significant hazards consideration. As discussed below, in accordance with the three factor test of 10 CFR 50.92(c), implementation of the proposed change was analyzed using the following standards and was found not to: (1) involve a significant increase in the probability or consequences of an accident previously evaluated, (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) involve a significant reduction in a margin of safety.

1. **Will operation of the facility in accordance with this proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?**

Response: No

SONGS 1 will be maintained during SAFSTOR in accordance with the Permanently Defueled Technical Specifications (PDTS) until decommissioning is complete and the plant's Operating (Possession Only) License is terminated. The PDTS were approved by the NRC on December 28, 1993, based, in part, on the reduced number and consequences of postulated accidents that are applicable when all fuel has been removed from the reactor and stored in the spent fuel pool.

Only two accidents previously evaluated in Chapter 15 of the SONGS 1 Updated Final Safety Analysis Report are relevant for the defueled plant: a loss of offsite power (LOP) and a fuel handling accident. As discussed below, the safety significance of both of these accidents is reduced during SAFSTOR.

LOP Event

A LOP event at SONGS is highly improbable and will continue to be so during the extension period. This is due to the built-in redundancy and the historically observed reliability of the SONGS offsite power sources. The potential adverse consequences due to an LOP during SAFSTOR are limited to the loss of spent fuel pool (SFP) cooling. However, such an event is of minimal safety significance due to the low heat load that exists in the SFP. This low heat load allows sufficient time for recovery before any appreciable heatup of the SFP. With further decay of the fuel, the heatup rate will continue to decrease. In the unlikely event that lost electrical power and/or SFP water cooling could not be restored, the SFP could be cooled by opening the fuel storage building to promote passive cooling and prevent boiling.

In summary, the probability of an LOP is not affected and its consequences are reduced during SAFSTOR.

Fuel Handling Accident

The fuel handling accident of record for the operating power plant is discussed in UFSAR Section 15.17. For this accident, the doses are within the guidelines of 10 CFR 100. The probability and consequences associated with this accident bound all fuel handling accidents during SAFSTOR. The reasons for this assessment are:

1. Fuel handling operations are not expected for many years so that the fuel would have decayed for much longer than was assumed in the UFSAR analysis (148 hours of decay).
2. When fuel handling operations occur, their extent and frequency will be very limited.

Chapters 3 and 9 of the SONGS 1 UFSAR evaluated other applicable events and phenomena. The following events and phenomena will remain applicable during SAFSTOR: loss of SFP cooling, spent fuel cask drop, earthquakes, floods, tornadoes, tornado missiles, and fires. The probability and consequences of each of these events are either unchanged or reduced during SAFSTOR. The reasons are:

1. The heat and reactivity of the fuel will be low at the start of the SAFSTOR period and will continue to decrease.
2. The equipment necessary to mitigate the consequences of natural phenomena and prevent and control fires will remain in place for the spent fuel storage facility in accordance with applicable regulatory requirements.

In summary, operation of the facility in accordance with this proposed change will not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Will operation of the facility in accordance with this proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No

The NRC determined in their safety evaluation accompanying Amendment No. 155 that the PDTS "would ensure the safe long term storage of irradiated fuel in the spent fuel pool". They also determined that "no new accidents were introduced based on the permanent defueling of the SONGS 1 reactor." These determinations will remain valid during SAFSTOR, considering that the license extension is an administrative matter and that the PDTS will continue to be implemented during SAFSTOR.

3. Will operation of the facility in accordance with this proposed change involve a significant reduction in a margin of safety?

Response: No

This proposed change is administrative and does not change the plant configuration or any of the safety measures being implemented for the defueled plant. The heat load and reactivity of the spent fuel in the SFP are steadily decreasing with time and these parameters will be less during SAFSTOR than at present. Thus there will be no significant reduction in a margin of safety as a result of this proposed change.

SAFETY AND SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Based on the preceding analysis, it is concluded that: (1) Proposed Change No. 264 does not constitute a significant hazards consideration as defined by 10 CFR 50.92, (2) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed change, and (3) this action will not result in a condition which significantly alters the impact of the station on the environment as described in the NRC Final Environmental Statement and the NRC's subsequent environmental assessment dated September 16, 1991.