

July 29, 1996

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

Gentlemen:

Subject:

Docket Nos 50-361 and 50-362

Amendment Application Nos. 146 and 130

Spent Fuel Consolidation

San Onorre Nuclear Generating St

Unit: 2 and 3

Enclosed are Amendment Application Nos. 146 and 130 to Facility Operating Licenses NPF-10 and NPF-15 for the San Onofre Nuclear Generating Station, Units 2 and 3 (SONGS 2 and 3), respectively. These amendment applications consist of Proposed Change Number 443 or PCN-443 (Enclosure 1), a technical report written to support PCN-443 changes (Enclosure 2), and a revised exemption request (Enclosure 3). Each item is discussed separately below.

## PCN-443

PCN-443, provided as Enclosure 1, requests changes to the Unit 2 Amendment No. 127 (as revised by Amendment No. 128) and Uni 3 Amendment No. 116 (as revised by Amendment No. 117) approved Technical Specification (TS) Sections 3.7 (Plant Systems) and 4.3 (Fuel Storage).

Attachments A and B of Enclosure 1 contain the TS pages in the above amendments for Units 2 and 3, respectively, that will be affected by the changes requested by PCN-443. Attachments C and D of Enclosure 1 contain the TS pages in the above amendments for SONGS 2 and 3, respectively, as modified by the requested changes.

The changes requested by PCN-443 will permit an increase in the licensed storage capacity of the spent fuel pools (SFPs) of SONGS 2 and 3 by allowing spent fuel to be consolidated after a minimum required residence time in the SFPs. Consolidation will typically be accomplished by pulling fuel rods out of two spent fuel assemblies and packing these fuel rods in a metal canister, which will be stored in a spent fuel rack location. Besides SONGS 2 and 3 spent fuel, uranium dioxide spent fuel from SONGS 1 will also be consolidated. Currently, there are no plans to consolidate mixed oxide spent fuel from SONGS 1.

Consolidation will increase the storage capacity of each SFP from 1542 to approximately 2867 fuel assemblies, thereby allowing SONGS 2 and 3 to continue operation until their operating licenses expire in 2013. Without additional storage capacity and with the presently licensed maximum fuel enrichment of 4.1 weight percent (w/o) U-235, it is estimated that SONGS 3 will lose full core offload reserve (FCOR) capability in 20(3 (end of Cycle 12 operation) and SONGS 2 will lose FCOR in 2005 (end of Cycle 13 operation).

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By a letter dated December 6, 1995, Southern California Edison (Edison) submitted Amendment Application Numbers 153 and 137 to Facility Operating Licenses NPF-10 and NPF-15. These amendment applications consist of PCN-449, which requests changes to TS Sections 3.7 and 4.3 to allow an increase in the maximum U-235 enrichment of spent fuel that may be stored in the SONGS 2 and 3 SFPs from 4.1 to 4.8 w/o. Our letter requested NRC approval of Amendment Applications 153 and 137 by August 31, 1996. Contingent on NRC approval, implementation of the higher enrichment will defer the loss of the FCOR date for both plants until 2006 (end of Cycle 13 operation). This clearly is not sufficient to support operation of the plants until their license expiration date.

NRC approval of PCN-449 is currently pending. PCN-443 includes Attachments E and F to identify the changes due to both PCN-443 and PCN-449 for the TS pages affected by both PCNs.

PCN-443 also includes, for information only, Attachment G, containing a list of restrictions or "administrative controls" that have been identified to help to ensure plant safety against accidental criticality and other postulated accidents associated with fuel consolidation and storage. All or some of these administrative controls may be included in the Licensee Controlled Specifications that will supplement the TSs.

Finally, PCN-443 includes, for information only, Attachments H and I. Attachment H shows changes to the Bases for TS Sections 3.7 and 4.3 as the result of PCN-443 alone, and Attachment I shows Bases changes as the result of both PCN-443 and PCN-449 on the Bases pages affected by both PCNs.

## Technical Report

The technical report in Enclosure 2 is entitled "Fuel Consolidation and Storage Report." It contains amplification of the technical information presented in Enclosure 1. Enclosure 2 adheres to the guidelines and requirements set forth in the NRC's "OT Position for Review and Acceptance of Spent Fuel Storage and Handling Applications", which was issued on April 14, 1978, and amended by a letter dated January 18, 1979.

The criticality analysis described in the technical report assumes SONGS 2 and 3 fuel enriched to a maximum of 5.1~w/o U-235, which bounds all past SONGS fuel enrichments and the 4.8~w/o maximum fuel enrichment proposed in PCN-449 for SONGS 2 and 3.

## Exemption Request

Enclosure 3, entitled "Request for Exemption from 10 CFR 70.24 Criticality Accident Requirements," requests a revision to an existing exemption for SONGS 2 and 3 concerning criticality accident monitoring instrumentation in the fuel handling building and emergency procedures to be followed in case of accidental criticality. The revision would modify certain fuel handling restrictions imposed by the exemption to make the restrictions compatible with the fuel consolidation process.

Edison has concluded that fuel consolidation represents a viable solution to the need for interim spent fuel storage without impacting public health and safety. By implementing this solution, SONGS 2 and 3 will be able to operate until the expiration of their licenses in 2013 should other avenues for spent fuel storage or disposal not be available when needed.

Accordingly, Edison requests NRC approval of PCN-443 by April 1998 to assist in our planning for storing spent fuel from San Onofre Units 1, 2, and 3.

If you have any questions or need additional information concerning the enclosed amendment applications, please contact me.

Very truly yours,

Enclosure

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