NRR-PMDAPEm Resource

From: Wengert, Thomas
Sent: Tuesday, January 06, 2015 4:25 PM
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Subject: SONGS -Revised Draft SRXB/RASB RAI RE: Permanently Defueled Technical Specifications License Amendment Request (TAC Nos. MF3774 and MF3775)
Attachments: SONGS - Revised Draft RAI Regarding Defueled TS LAR.pdf

Ms. Sterdis,

By letter dated March 21, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14085A141), as supplemented by letter dated October 1, 2014 (ADAMS Accession No. ML14280A264), Southern California Edison (SCE, the licensee) requested license amendments to revise the Operating License and associated Technical Specifications to reflect the permanent cessation of operation for San Onofre Nuclear Generating Station (SONGS), Units 2 and 3.

By email dated December 12, 2014, the Nuclear Regulatory Commission (NRC) staff issued a draft request for additional information (RAI) concerning the monitoring and maintenance of long-lived, passive structures and components. On December 18, 2014, the staff clarified the RAI and agreed to modify the RAI to further clarify the request. Attached is the revised draft RAI. I am sending you this preliminary copy to give you an opportunity to ask clarifying questions if the request is not clear. This RAI will be made publicly available following your review.

Please let me know if SCE would like to have a conference call with the NRC staff to clarify this revised RAI. Also, let's discuss the proposed timing for SCE's response.

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Hearing Identifier: NRR_PMDA
Email Number: 1877

Mail Envelope Properties (Thomas.Wengert@nrc.gov20150106162500)

Subject: SONGS -Revised Draft SRXB/RASB RAI RE: Permanently Defueled Technical Specifications License Amendment Request (TAC Nos. MF3774 and MF3775)
Sent Date: 1/6/2015 4:25:27 PM
Received Date: 1/6/2015 4:25:00 PM
From: Wengert, Thomas

Created By: Thomas.Wengert@nrc.gov

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Post Office:

Files	**Size**	**Date & Time**
MESSAGE	1367	1/6/2015 4:25:00 PM
SONGS - Revised Draft RAI Regarding Defueled TS LAR.pdf	142287	

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

REVISED DRAFT REQUEST FOR ADDITIONAL INFORMATION

DEFUELED TECHNICAL SPECIFICATION LICENSE AMENDMENT REQUEST

SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 2 AND 3

SOUTHERN CALIFORNIA EDISON

DOCKET NOS. 50-361 AND 50-362

TAC NOS. MF3774 AND MF3775

By letter dated March 21, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14085A141), as supplemented by letter dated October 1, 2014 (ADAMS Accession No. ML14280A264), Southern California Edison (the licensee) requested an amendment to the facility operating licenses. The requested amendment would revise the operating licenses and associated Technical Specifications (TSs) to reflect the permanent cessation of reactor operation and the permanently defueled condition of the reactor vessels at San Onofre Nuclear Generating Station (SONGS), Units 2 and 3. The proposed amendment would eliminate most of the previous operating TSs because these TSs are only applicable in operating modes or conditions where fuel is emplaced within the reactor vessel. The proposed license amendment also requested changes to TS definitions and various organizational and program specifications. The following additional information is necessary to complete the Nuclear Regulatory Commission (NRC) staff's technical review:

Background

On June 12, 2013, SCE submitted a Certification of Permanent Cessation of Power Operations letter to the NRC, certifying that Units 2 and 3 had permanently ceased power operations. On June 28 and July 22, 2013, SCE certified that all fuel had been permanently removed from Units 3 and 2 reactors, respectively.

This Request for Additional Information (RAI) intends to identify the Structures and Components (SCs) needed to maintain the spent fuel in a safe condition during the decommissioning period and describe what actions are in place to provide reasonable assurance that the SCs are capable of fulfilling their intended functions.

The provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) 50.51(b) require licensees that have provided certifications for permanent cessation of power operations and permanent removal of fuel in accordance with 10 CFR 50.82(a)(1)(i) and 10 CFR 50.82(a)(1)(ii) to take actions necessary to decommission and decontaminate the facility and continue to maintain the facility in a safe condition. The SCs required to maintain the safe operation of the facility during the decommissioning period may remain operational beyond the normal licensed operating period of 40 years. Under the provisions of 10 CFR 50.82, licensees must complete decommissioning within 60 years of permanent cessation of operations.

The SONGS Post-shutdown Decommissioning Activities Report (PSDAR) states, in part:

> During Period 1 measures will be planned, designed, and implemented to ensure spent fuel storage and handling systems will continue to support fuel storage in the spent fuel and to facilitate transfer of spent fuel to the ISFSI. Systems, structures, and programs needed to support the safe storage and transfer of spent fuel such as security, fire protection, and environmental and radiological monitoring will be maintained in accordance with applicable requirements. Equipment maintenance, inspection, and operations will be performed on these systems and structures as appropriate.

Page 10 of 101 of the Enclosure to the license amendment request states, in part:

> During the decommissioning process, a fire protection program is required by 10 CFR 50.48(f) to address the potential for fires that could result in a radiological hazard. However, the regulation is applicable regardless of whether a requirement for a fire protection program is included in the facility license.

The fire protection requirement in 10 CFR 50.48(f) states, in part:

> Licensees that have submitted the certifications required under § 50.82(a)(1) shall maintain a fire protection program to address the potential for fires that could cause the release or spread of radioactive materials (i.e., that could result in a radiological hazard).
>
> (1) The objectives of the fire protection program are to--
>
> (i) Reasonably prevent these fires from occurring;
> (ii) Rapidly detect, control, and extinguish those fires that do occur and that could result in a radiological hazard; and
> (iii) Ensure that the risk of fire-induced radiological hazards to the public, environment and plant personnel is minimized.
>
> (2) The licensee shall assess the fire protection program on a regular basis. The licensee shall revise the plan as appropriate throughout the various stages of facility decommissioning.

Additionally, licensees are required to meet 10 CFR Part 20 throughout decommissioning. Section 20.1002 of Part 20, “Scope,” states, in part:

> The regulations in this part apply to persons licensed by the Commission to receive, possess, use, transfer, or dispose of byproduct, source, or special nuclear material or to operate a production or utilization facility under parts 30 through 36, 39, 40, 50, 52, 60, 61, 63, 70, or 72 of this chapter, and in accordance with 10 CFR 76.60 to persons required to obtain a certificate of compliance or an approved compliance plan under part 76 of this chapter.

Furthermore, 10 CFR 20.1101 states, in part:

> (a) Each licensee shall develop, document, and implement a radiation protection program commensurate with the scope and extent of licensed activities and sufficient to ensure compliance with the provisions of this part.

The provisions of 10 CFR 50.51(b) state, in part:

> Each license for a facility that has permanently ceased operations, continues in effect beyond the expiration date to authorize ownership and possession of the production or utilization facility, until the Commission notifies the licensee in writing that the license is terminated. During such period of continued effectiveness the licensee shall--
>
> (1) Take actions necessary to decommission and decontaminate the facility and continue to maintain the facility, including, where applicable, the storage, control and maintenance of the spent fuel, in a safe condition, and
> …

The provisions of 10 CFR 50.65 require licensees to monitor performance or condition of Structures, Systems and Components (SSCs) to ensure they are capable of fulfilling their intended function. The scope of the monitoring specified in 10 CFR 50.65(a)(1) applies to safety-related SSCs as stated in Section 50.65(b)(1) and to nonsafety-related structures, systems, or components whose failure could prevent safety-related SSCs from fulfilling their intended function as stated in Section 50.65(b)(2)(ii).

The provisions of 10 CFR 50.65(a)(1) state, in part:

> Each holder of an operating license for a nuclear power plant … shall monitor the performance or condition of structures, systems, or components, against licensee-established goals, in a manner sufficient to provide reasonable assurance that these structures, systems, and components, as defined in paragraph (b) of this section, are capable of fulfilling their intended functions.
> …

The provisions of 10 CFR 50.65(a)(1) also state:

> For a nuclear power plant for which the licensee has submitted the certifications specified in § 50.82(a)(1) or § 52.110(a)(1) of this chapter, as applicable, this section shall only apply to the extent that the licensee shall monitor the performance or condition of all structures, systems, or components associated with the storage, control, and maintenance of spent fuel in a safe condition, in a manner sufficient to provide reasonable assurance that these structures, systems, and components are capable of fulfilling their intended functions.

The treatment of passive, long-lived SCs under the monitoring program during the original period of operation is likely to involve minimal performance or condition monitoring to maintain functionality. Passive SCs generally have functions that do not have performance and condition characteristics that are as readily observable as SCs that perform active functions. Long-lived SCs may not be subjected to periodic replacement based on a qualified life or specified time period. The NRC staff needs to determine whether the licensee's programs are sufficient to adequately manage the degradation effects of passive, long-lived SCs to prevent the loss of intended function beyond the normal licensed operating period of 40 years. Licensees, under the provisions of 10 CFR 50.51(b) and 10 CFR 50.82, shall take actions necessary to decommission and decontaminate the facility and continue to maintain the facility, including, the

Spent Fuel Pool (SFP), in a safe condition until license termination, which in this case will extend beyond the normal licensed operating period of 40 years.

Request for Additional Information

In its application, the licensee does not describe what actions it will take to maintain the SFP in a safe condition, i.e., how it intends to monitor and maintain the intended function of passive, long-lived SCs (e.g., the neutron absorbing materials) in the SFP, the fire protection system, and the radiation protection system beyond the normal licensed operating period of 40 years. Accordingly, the NRC staff requests that the licensee provide the following information:

RAI-SRXB-01

Identify and list the long-lived, passive SCs (e.g., neutron absorbing materials) in the SFP, the fire protection system and the radiation protection system that are needed, pursuant to the provisions of 10 CFR 50.51(b), to provide reasonable assurance that safe condition of the spent fuel will be monitored and maintained during the decommissioning period.

RAI-SRXB-02

Provide a summary description of actions that will be taken to monitor and maintain the performance or condition of long-lived, passive SCs, identified in the response to Request 1, to provide reasonable assurance that the long-lived, passive SCs are capable of fulfilling their intended functions during the decommissioning period.