NRR-PMDAPEm Resource

From: Wengert, Thomas
Sent: Monday, September 22, 2014 4:01 PM
To: andrea.sterdis@sce.com
Cc: mark.morgan@sce.com; kenneth.r.wilson@sce.com; John.Brabec@sce.com; Broaddus, Doug
Subject: SONGS - Draft RAI RE: Emergency Planning Exemption Request (TAC Nos. MF3835, MF3836, and MF3837)
Attachments: SONGS EP Exemption Request Draft RAI dtd 9-22-14.pdf

Ms. Sterdis,

By letter dated March 31, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14092A332), Southern California Edison (SCE) requested exemptions from portions of Part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR 50) for the San Onofre Nuclear Generating Station (SONGS) Units 1, 2 and 3, and Independent Spent Fuel Storage Installation (ISFSI) Radiological Emergency Response Plan. Specifically, SCE requested exemption from certain emergency plan (EP) requirements of 10 CFR 50.47(b), 10 CFR 50.47(c)(2), and Section IV to Appendix E of 10 CFR 50. The requested exemptions would allow SCE to reduce some emergency plan requirements and subsequently revise the SONGS Radiological Emergency Response Plan consistent with the permanently defueled condition of the reactors. By letter dated September 9, 2014, SCE submitted a supplemental response to the NRC staff's August 27, 2014 (ADAMS Accession No. ML14209A005), request for additional information.

Based on the Nuclear Regulatory Commission (NRC) staff's review of SCE's September 9, 2014, supplement, the NRC staff has determined that additional information is required to facilitate completion of the staff's technical review. I am sending you this preliminary copy to give you an opportunity to ask clarifying questions if the request is not clear. These questions 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 request. Also, let's discuss the proposed timing for SCE's response.

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Options
Priority: Standard
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DRAFT REQUEST FOR ADDITIONAL INFORMATION

EMERGENCY PLANNING EXEMPTION REQUEST

SOUTHERN CALIFORNIA EDISON COMPANY

SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 1, 2, AND 3 AND

INDEPENDENT SPENT FUEL STORAGE INSTALLATION

DOCKET NOS. 50-206, 50-361, 50-362 AND 72-041

By letter dated March 31, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14092A332), Southern California Edison (SCE) requested exemptions from portions of Part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR 50) for the San Onofre Nuclear Generating Station (SONGS) Units 1, 2 and 3 Radiological Emergency Response Plan. Specifically, SCE requested exemption from certain emergency plan requirements of 10 CFR 50.47(b), 10 CFR 50.47(c)(2), and Section IV to Appendix E of 10 CFR 50. The requested exemptions would allow SCE to reduce emergency plan requirements and subsequently revise the SONGS Radiological Emergency Response Plan consistent with the permanently defueled condition of the reactors.

By letter dated September 9, 2014, SCE responded to a request for additional information (RAI) regarding the exemption request. Following the Nuclear Regulatory Commission staff's review of the responses, the staff has determined that clarification of some information is necessary. The following additional information is necessary to complete the staff's technical review. Note that RAI-010 is revised; RAI-013, -014, and -015 are new requests for information.

(MF3835) RAI-010 (Rev. 1)

Exemption from emergency planning requirements, as requested, is dependent on the ability of the licensee to promptly mitigate the consequences of applicable design basis and beyond design basis accidents resulting in a loss of spent fuel pool (SFP) water inventory.

Please describe the actions SONGS would take to mitigate the consequences of an event involving a catastrophic loss of water inventory from the SFP. Include in the description:

- Permanently installed equipment available to fill or spray the SFP;
- On-site portable equipment available to fill or spray the SFP;
- Off-site equipment available to fill or spray the SFP;
- Available water sources;
- Written procedures to perform the mitigation strategies and how they are maintained;

- The onshift personnel who would perform these mitigation strategies and how they are trained;

- How the equipment used in the mitigating strategies are stored, maintained and tested;

- Approximate times it would take to deliver, setup and start delivering makeup/spray to the SFP using portable equipment; and

- How makeup/spray could be delivered to the SFP in the event that radiation levels at the SFP prohibited entry to the area.

(MF3835) RAI-013

Please describe the actions SONGS could take to mitigate the consequences of an event involving a catastrophic loss of water inventory concurrently from both Units 2 and 3 SFPs. Include in the description:

- On-site portable equipment available to fill or spray both of the SFPs;

- Availabilty of onshift personnel who would perform these mitigation strategies;

- How the equipment would be deployed during this type of event; and

- Approximate times it would take to deliver, setup and start delivering makeup/spray to both of the SFPs using portable equipment.

In addition, if using a series style of deployment of makeup/ to the SFPs, what would be the impact of changing radiation levels at the SFP due to a delay in deployment on entry to the areas and how would those impact be managed?

(MF3835) RAI-014:

The response to the RAI provided in Enclosure 1 to the letter dated September 9, 2014, provided a summary of a calculation to evaluate air cooling of spent fuel in SONGS Unit 2 and Unit 3 spent fuel pools in lieu of the results to a seismic checklist. The NRC staff found that the summary information was not sufficiently clear for the staff to complete its technical review. Please provide clarifying information for the following:

- Use of guidance from NUREG-0800 ASB 9-2 to determine spent fuel pool heat generation rate: The guidance from NUREG-0800 ASB 9-2 was intended to evaluate accident decay heat rates close to the time of reactor shutdown and contains few representative decay heat groups for the fission and activiation products present 31 months following shutdown. Justify the use of this guidance in the air cooling calculation or reference alternate decay heat models.

- Consideration of fuel handling building ventilation subsystem: Clarify the operating state of the ventilation system used in the GOTHIC analysis. Provide justification for the selected operating state considering the seismic hazard present at the SONGS site.

- The COBRA model considered one assembly from the Cycle 16 discharge and two assemblies from earlier discharges on two faces, with no heat transfer from these three assemblies to adjacent assemblies or structures: Clarify the power history for the fuel assemblies and the heat generation model used to determine the representative decay heat rates cited in the list of inputs. Provide justification for the configuration as a realistic or conservative representation of the most limiting actual fuel storage pattern.

(MF3835) RAI-015:

For comparison purposes, please provide the numeric result of the adiabatic heatup time analysis based on the same decay heat information used in the air cooling analysis (i.e., specific time to reach 900 degrees Celcius based on decay heat on August 31, 2014).