UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

March 10, 2009

Mr. Ross T. Ridenoure
Senior Vice President and
Chief Nuclear Officer
Southern California Edison Company
San Onofre Nuclear Generating Station
P.O. Box 128
San Clemente, CA 92674-0128

SUBJECT: SAN ONOFRE NUCLEAR GENERATING STATION UNITS 1, 2, AND 3, AND INDEPENDENT SPENT FUEL STORAGE INSTALLATION - CORRECTION TO NUCLEAR REGULATORY COMMISSION RESPONSE TO PROPOSED CHANGES TO THE EMERGENCY PLAN RE: INCREASE IN EMERGENCY RESPONSE ORGANIZATION AUGMENTATION TIME (TAC NOS. MD5837 AND MD5838)

Dear Mr. Ridenoure:

By application dated June 18, 2007, and as supplemented by letters dated June 18 and September 24, 2008, Southern California Edison Company (SCE, the licensee) submitted to the U.S. Nuclear Regulatory Commission (NRC), proposed changes to the Emergency Plan (E-plan) for the San Onofre Nuclear Generating Station, Units 1, 2, and 3 and the independent spent fuel storage installation, in accordance with Section 50.54(q) of Title 10 of the *Code of Federal Regulations* (i.e., 10 CFR 50.54(q)).

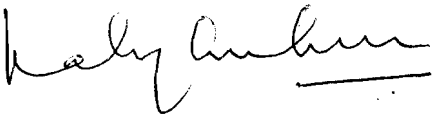
The NRC staff completed a technical and regulatory review of the proposed E-plan changes and supporting documentation and, by letter dated November 28, 2008, informed SCE that the proposed E-plan changes would continue to meet the standards in 10 CFR 50.47(b) and the requirements in Appendix E, "Emergency Planning and Preparedness for Production and Utilization Facilities," of 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities." By letter dated January 13, 2009, the NRC staff provided a revised safety evaluation (SE).

In the SE to the NRC letter dated January 13, 2009, the staff inadvertently omitted "chemistry coordinator" when describing a technician position as described in the licensee's submittals. Additionally, on page 9 the NRC staff incorrectly referenced 30- and 60-minute responders instead of 60- and 90-minute responders. These changes are made on the enclosed revised pages 8 and 9 of the SE. Please replace these pages in the SE provided in the NRC letter dated January 13, 2009.

These errors do not change the NRC staff's conclusions in approval of emergency response organization augmentation times. We regret any inconvenience caused by this error.

If you have any questions, please contact me at (301) 415-1480 or by email at kaly.kalyanam@nrc.gov.

Sincerely,



N. Kalyanam, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-206, 50-361, 50-362,
and 72-41

Enclosure:
Revised SE pages 8 and 9

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(response) time continues to meet the intent of the NRC-approved E-plan, the standards of 10 CFR 50.47(b), and the requirements of Appendix E to 10 CFR Part 50.

(5) Chemistry/Radiochemistry

For the chemistry/radiochemistry tasks, the licensee proposed to change the E-plan from (1) one on-shift technician and one technician chemistry coordinator at 60 minutes to (2) one on-shift technician and one technician chemistry coordinator at 90 minutes. The guidance in NUREG-0654/FEMA-REP-1, Table B-1, for chemistry/radiochemistry indicates that one rad/chem technician should be assigned to each shift, with the capability to add a second technician within 60 minutes. The licensee states that it maintains one on-shift chemistry technician and the technological advances implemented since the issuance of NUREG-0654/FEMA-REP-1 (i.e., severe accident management guidelines and core damage assessment methodologies) have reduced the need for prompt augmentation of radiochemistry capabilities. The licensee notes that the on-shift chemistry technician is trained and qualified to provide chemistry samples and analysis to support emergency operating instructions and E-Plan implementing procedures. Furthermore, improvements to the post-accident sample system (License Amendments 102 and 93) have reduced the task burden for the nuclear chemist. Based on this, the NRC staff finds the compensatory measures proposed by the licensee to compensate for the extended augmentation time for this task to be acceptable. Therefore, the NRC staff concludes that the proposed change to the ERO augmentation (response) time continues to meet the intent of the NRC-approved E-plan, the standards of 10 CFR 50.47(b), and the requirements of Appendix E to 10 CFR Part 50.

Plant System Engineering, Repair and Corrective Actions

(1) Technical Support

For the technical support task, the licensee proposed to change the SONGS E-plan from one core/thermal hydraulics engineer at 30 minutes to one such engineer at 90 minutes. The STA will be available to cover this function within 30 minutes and will maintain this capability until relieved by the core/thermal hydraulics engineer. The guidance in NUREG-0654/FEMA-REP-1, Table B-1, and the current SONGS E-plan state that one core/thermal hydraulics engineer should be available within 30 minutes.

The licensee noted that, during off-normal conditions, the STA will provide technical evaluation of plant conditions and parameters and an independent overview of plant safety. During transients and accidents, the STA will compare existing critical parameters (i.e., neutron power level; reactor coolant system level, pressure and temperature; containment pressure, temperature, humidity and radiation level; and plant radiation levels) with those predicted in operating procedures, and other applicable documents to ascertain whether the plant is responding to the incident as predicted. The STA will make a qualitative assessment of plant parameters during and following an accident to ascertain whether core damage has or will occur. During emergencies, the STA will observe critical parameters and determine whether adequate core cooling exists, including the availability of a heat sink for the reactor coolant system. The licensee further stated that the STA position addresses the core/thermal hydraulics functions listed in Table B-1.

Based on the STA's experience in core analysis and thermal hydraulics, the capabilities of the various on-shift personnel to recognize core damage indications (e.g., based on plant

parameters and use of emergency action level bases documents), and procedure improvements since the implementation of NUREG-0654/FEMA-REP-1 (e.g., symptom-based emergency operating procedures and severe accident procedures), the NRC staff finds that adequate on-shift expertise and associated resources exist to perform the technical support task until the core/thermal hydraulic engineer responds. Therefore, the NRC staff concludes that the proposed change to the ERO augmentation (response) time continues to meet the intent of the NRC-approved E-plan, the standards of 10 CFR 50.47(b), and the requirements of Appendix E to 10 CFR Part 50.

(2) Repair and Corrective Actions

The guidance in NUREG-0654/FEMA-REP-1, Table B-1, for repair and corrective actions states that two individuals, one mechanical maintenance/radwaste operator and one EM/I&C technician, should be designated for each shift, but their functions may be carried out by shift personnel assigned other duties. In addition, Table B-1 guidance outlines the addition of one EM staff member and one I&C technician within 30 minutes, and the addition of one mechanical maintenance staff member, one radwaste operator, and one EM staff member within 60 minutes. The licensee proposed to change the E-plan from (1) zero responders on-shift, two 30-minute responders, and zero 60-minute responders to (2) three on-shift staff members with two 90-minute responders.

The licensee noted that the normal on-shift staffing includes a mechanical maintenance staff member, an EM staff member, and an I&C technician or SRGF. All SRGFs have been qualified as multidiscipline supervisors. The multidiscipline initial training program includes the following courses; Radiation Monitor Fundamentals, Electrical Checker, Electrical Drawings, Introduction to Mitigating Core Damage, Calibration and Control, Fabrication of Terminations & Spices, Troubleshooting Instruments, and Instrument Filling and Venting.

The licensee further states that the expected initial (i.e., prior to augmentation) I&C response actions would include verification of system flows, tank levels, system pressures, and hands-off troubleshooting. The training that all SRGFs have received ensures that they are able to undertake these expected actions during the periods when an I&C technician is not on-shift, Recalled I&C technicians would perform the expected longer term actions, such as calibration of controllers and equipment surveillances.

The licensee also stated that plant equipment operators (PEOs) can also provide additional on-shift maintenance support. PEOs are provided minor maintenance training so that they can perform minor valve maintenance (including inspection, cleaning, lubrication, hand wheel installation and valve packing gland adjustment), install or remove hoses for draining and venting of plant piping and equipment, replace blown fuses, and replace indicating lamps, among other tasks. In addition, no I&C actions are required in the event of an earthquake that requires event classification and declaration since seismic alarms received in the CR are the basis for seismic event classification and declaration.

Based on the above, the NRC staff finds that measures proposed by the licensee to compensate for the extended augmentation time for this task to be acceptable. Therefore, the NRC staff concludes that the proposed change to the ERO augmentation (response) time continues to meet the intent of the NRC-approved E-plan, the standards of 10 CFR 50.47(b), and the requirements of Appendix E to 10 CFR Part 50.

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/RA/

N. Kalyanam, Project Manager
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