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

November 28, 2008

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

Dear Mr. Ridenoure:

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

The proposed changes would extend the response time goal for activation of the emergency response facilities for SONGS from 60 to 90 minutes. Implementation of the proposed change will increase the pool of personnel available to fill emergency response organization positions.

The NRC staff completed a technical and regulatory review of the proposed E-plan changes and supporting documentation. Based on this, the staff has concluded 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." Furthermore, the staff also concludes that the E-plan, as changed, will continue to provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

A copy of the NRC safety evaluation is enclosed.

Sincerely,

for

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Enclosure:
Safety Evaluation

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

cc w/encl: Distribution via ListServ

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO EMERGENCY PLAN CHANGES

FOR

SAN ONOFRE NUCLEAR GENERATING STATION

UNIT NOS. 1, 2, 3 AND INDEPENDENT SPENT FUEL STORAGE INSTALLATION

DOCKET NOS. 50-206, 50-361, 50-362 AND 72-41

1.0 INTRODUCTION

By application dated June 18, 2007 to the U.S. Nuclear Regulatory Commission (NRC) (Agencywide Documents Access and Management System (ADAMS) Accession No. ML071700672), as supplemented by letters dated June 18, 2008 (ADAMS Accession No. ML082670360), and September 24, 2008 (ADAMS Accession No. ML082740060), Southern California Edison Company (SCE, or the licensee) submitted changes to the Emergency Plan (E-plan) for the San Onofre Nuclear Generating Station (SONGS) for NRC approval prior to implementation. The proposed changes would extend the response time goal for activation of the emergency response facilities for SONGS from 60 to 90 minutes. Implementation of the proposed change will increase the pool of personnel available to fill emergency response organization (ERO) positions. The licensee submitted the proposed changes for NRC review and approval in accordance with Title 10, Section 50.54(q), of the *Code of Federal Regulations* (i.e., 10 CFR 50.54(q)).

2.0 REGULATORY EVALUATION

The following sections discuss the regulatory requirements and guidance for E-plan changes that the NRC staff used as a basis for its review:

2.1 Regulatory Requirements

- 10 CFR 50.47(b)(1) states, in part, that each principal response organization has staff to respond and to augment its initial response on a continuous basis

- 10 CFR 50.47(b)(2) states, in part, that adequate staffing to provide initial facility accident response in key functional areas is maintained at all times and that timely augmentation of response capabilities is available

- Appendix E to 10 CFR Part 50, Section IV, Part A, "Organization," states, in part, that the organization for coping with radiological emergencies shall be described, including definition of authorities, responsibilities, and duties of individuals assigned to the licensee's emergency organization

2.2 Regulatory Guidance

Section II.B.5 of Revision 1 to NUREG-0654/FEMA-REP-1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," issued March 2002, states, in part, the following:

> Each licensee shall specify the positions or title and major tasks to be performed by the persons to be assigned to the functional areas of emergency activity. For emergency situations, specific assignments shall be made for all shifts and for plant staff members, both onsite and away from the site. These assignments shall cover the emergency functions in Table B-1 entitled, 'Minimum Staffing Requirements for Nuclear Power Plant Emergencies.' The minimum on-shift staffing levels shall be as indicated in Table B-1. The licensee must be able to augment on-shift capabilities within a short period after declaration of an emergency. This capability shall be as indicated in Table B-1.

The NRC issued Regulatory Issue Summary (RIS) 2005-02, "Clarifying the Process for Making Emergency Plan Changes," dated February 14, 2005, to clarify the meaning of "decrease in effectiveness," clarify the process for making changes to E-plans, and provide examples to licensees of changes that the staff considered to be a decrease in effectiveness.

3.0 TECHNICAL EVALUATION

The NRC staff has reviewed the licensee's regulatory and technical analyses in support of its proposed E-plan changes, as described in the SCE's application dated June 18, 2007, as supplemented by letters dated June 18 and September 24, 2008. The NRC staff's technical evaluation of these submittals is detailed below.

3.1 Background

The SCE E-plan addresses the emergency preparedness measures for SONGS Units 1, 2 and 3, and the Independent Spent Fuel Storage Installation (ISFSI). These sites are located in the same physical owner-controlled area for SONGS. SONGS Unit 1 is in decommissioning status and is currently undergoing significant dismantlement. The licensee has transferred all of the Unit 1 spent fuel to the onsite ISFSI. SONGS Units 2 and 3 have a common control room (CR) and the licensee has relocated the Unit 1 CR to the Unit 2 CR. Units 2 and 3 have operating licenses, Unit 1 has a Possession Only License, and the ISFSI has a General License.

SCE requested NRC approval for a change to the E-plan to allow the extension of the reporting time goal for key ERO staff to respond to and activate the emergency response facilities (ERF) in the event of an emergency at any of the operating units to be extended from 60 minutes to 90 minutes. The licensee stated that this proposed extension is necessary because an increase in traffic congestion in the surrounding area over the last 2 decades has extended the normal drive time of ERO staff to reach the ERF. This increased transit time has reduced the number of SCE personnel that are available to fill ERO duty positions. The existing E-plan achieves ERF augmentation by requiring the positions designated as minimum staff positions in the SONGS E-plan to be on site within 1 hour following initiation of the callout process. The licensee requests to amend the existing SCE E-plan and extend the current augmentation criteria of 60 minutes following initial notification to 90 minutes after emergency classification. The proposed changes

to the E-plan will enable more of the typical onsite shift personnel to fill key ERO duty responder positions. Specifically, the licensee will ensure that an instrument and control (I&C) technician or a shift rotating general foreman (SRGF) is onshift at all times. In addition, SCE will add one electrical maintenance (EM) technician, one I&C technician, and nine health physics (HP) technicians to EP Table 5-5(a) "Emergency Response Organization 90 Minute Responders."

3.2 Major Functional Areas

The licensee provided a justification of the proposed E-plan changes, which included a comparison between the ERO staffing levels and the staffing levels of Table B-1 in NRC report, NUREG-0654/FEMA-REP-1. This justification reviewed in detail each major functional area and task described in Table B-1. The following paragraphs discuss the NRC staff evaluation of these proposed changes for each of the major functional areas included in Table B-1.

Firefighting/First Aid

Firefighting activities are an on-shift staff duty in accordance with NUREG-0654/FEMA-REP-1, Table B-1 guidance, which refers to plant technical specifications, rather than defining the fire brigade complement. SCE maintains a five-person firefighting crew, at SONGS, forming in essence, an onsite fire department that is available 24 hours a day, 7 days a week, 365 days a year. This crew performs fire brigade duties and is not impacted by the proposed E-plan changes. Under the direction of the battalion chief, the fire department is responsible for mitigating several types of incidents including fire suppression, hazardous material spills or leak mitigation, care of personnel injury, confined space rescue and entry into areas with elevated temperatures. For fires that affect plant operations, the shift manager (SM) will send an operator and the HP supervisor to advise the battalion chief concerning priority response. The first-aid team is a collateral duty of the fire department and is staffed by personnel who are qualified emergency medical technicians in the state of California. The availability of an on-shift fire department allows the other on-shift plant personnel to perform their primary ERO functions without the added tasks of fire brigade or first-aid team duties.

Emergency Direction and Control

The guidance in Table B-1 of NUREG-0654/FEMA-REP-1 indicates that the responsibilities of shift technical advisor, shift supervisor, or designated facility manager may be provided by shift personnel assigned other functions. The Emergency Operations Facility (EOF) director will assume responsibility for the overall direction of the facility response when all centers are fully manned. The senior manager in the Technical Support Center (TSC) or the CR will retain the responsibility for directing the minute-to-minute facility operations. The proposed change will increase the time allowed for augmentation of the EOF director from 60 minutes to 90 minutes.

The licensee states that the SM initially assumes the emergency coordinator (EC) function and provides emergency direction and control. The SM is responsible for the initial assessment and evaluation of any abnormal or emergency situation and directs the appropriate response. Following the turnover of the EC function from the SM to the station emergency director (SED) in the TSC (or a combination of the SED and corporate emergency director in the EOF), the SM is responsible for maintaining control over plant operations. The SONGS operations shift crew, under the direction of the SM, is responsible for the safe and proper operation of the plant at all times. The operations shift crew will respond to all abnormal and emergency situations and take

action as necessary to mitigate the consequences of and/or terminate an accident. The minimum shift crew ensures that key functions such as classification, protective action recommendations (PARs), offsite notifications, and event mitigation activities can be initiated and sustained during the initial phase of an emergency without additional personnel. The on-shift staffing of 23 staff members (in excess of the 10 staff members identified in Table B-1), as described in the licensee's proposed E-plan change, provides sufficient resources to the SM for accident assessment and mitigation.

The overall focus of the SM is emergency classification, notifications, PARs, and oversight of plant operations until TSC activation. The shift technical advisor (STA) provides technical evaluation of plant conditions and an independent overview of plant safety. The STA will report any abnormalities to the SM immediately and provide assistance in formulating a plan for appropriate corrective action. The HP supervisor provides radiological support in the form of real time dose assessment as well as in-plant assessment of radiological conditions. On-shift personnel (mechanical technician, electrical technician, and either an I&C technician or an SRGF) perform the repair and corrective actions. The nuclear operations assistant (NOA) is a required on-shift position and is designated as the shift communicator. As such, the NOA will conduct emergency communications in accordance with plant procedures.

The NRC staff finds the protective measures described 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.

Notification/Communications

In accordance with Table B-1 of NUREG-0654/FEMA-REP-1, on-shift staffing for notification/communications should consist of one position (as stated in a table footnote that function may be performed by the engineering aide to the shift supervisor) and one 30-minute and two 60-minute responders. The licensee proposed to change the E-plan requirements from (1) one on-shift communicator with one additional communicator available at 30 minutes and two additional communicators available at 60 minutes to (2) two on-shift communicators with four additional communicators available at 90 minutes.

The licensee states that the NOA is designated as the shift communicator to activate the ERO recall system and notify local and State offsite authorities. The NOA has no collateral duties or tasks that would impact his or her ability to make notifications in a timely manner. The licensee further states that the SM is responsible for assigning an on-shift Units 2/3 licensed operator to serve as the CR emergency notification system communicator to notify the NRC and provide additional information as necessary or maintain communication as requested.

This proposed change provides greater coverage than the Table B-1 requirement and will increase the communications support capability in the early stages of an event when the need for the functional support would be the greatest. Based on the on-shift staffing complement designated in the proposed E-plan change for notifications/communications (which is in excess of that specified in Table B-1 of NUREG-0654/FEMA-REP-1) and the advances in communications capabilities available, the NRC staff concludes that adequate on-shift resources exist to support offsite notifications/communications within 90 minutes of event classification.

After this time period, the TSC or EOF will assume the function. The NRC staff finds that 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.

Radiological Accident Assessment and Support of Operational Accident Assessment

(1) Offsite Dose Assessment

The E-plan guidance for offsite dose assessment in NUREG-0654/FEMA-REP-1, Table B-1, states that one senior HP expert should be a 30-minute responder. Currently the SONGS E-plan calls for one senior HP expert to be available to perform offsite dose assessments within 30 minutes and two experts available within 60 minutes. The proposed revision provides one on-shift senior HP expert and three additional experts within 90 minutes

The licensee states that the HP supervisor, who provides on-shift HP expertise, is responsible for the initial offsite dose assessment/projections. The HP supervisor conducts dose assessment through the use of Raddose-V, a computer-based program utilized by both the onsite ERO and offsite agencies to analyze the effects of a radiological release on the general population. This program utilizes input from plant instruments and meteorological data to generate dose projections. Manual dose calculations can be performed using plant procedures. Three additional personnel with senior HP expertise will assume responsibility for offsite dose assessment and projections upon arrival at the TSC and EOF.

As required by 10 CFR 50.47(b)(9), a licensee must have the capability to perform actual or potential offsite consequence analysis of a radiological emergency condition. The SONGS on-shift organization includes personnel trained and qualified to perform onsite/offsite dose assessments/projections until relieved by the augmented ERO.

The NRC staff finds that the incorporation of the technological advances in dose assessment and the presence of on-shift personnel described above adequately compensates for the extended augmentation time for this task. Therefore, the modifications proposed by the licensee for this task are acceptable. Based on this, the NRC staff concludes that 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) Offsite Surveys

The E-plan guidance in NUREG-0654/FEMA-REP-1, Table B-1, and the current SONGS E-plan call for two technicians to perform offsite surveys at 30 minutes and at 60 minutes following initiation of the callout process. The licensee's proposed change to the E-plan indicates that offsite surveys would be accomplished by one on-shift HP technician (this technician is sent to the exclusion area boundary in the plume direction, satisfying both the onsite (out-of-plant) and offsite survey functions) and the automated recall of three additional HP technicians.

The licensee further states that although the primary method of generating dose projections is from calibrated, installed plant effluent monitors, the plant has nine installed landward-based

pressurized ion chambers that can provide data to support dose assessment calculations. These waterproof detectors provide continuous readout in the CR, TSC, and EOF obtainable via the HP computer terminals. These units are powered from the offsite power lines and have 12 volt, direct current backup batteries to power the units for up to 8 hours following a loss of offsite power. These detectors can also be used to identify that a release is occurring in the event of an unmonitored release pathway.

The NRC staff concludes that adequate resources are available, based on the assignment of on-shift technicians and installed monitors, to support offsite surveys within 90 minutes of event classification prior to staff augmentation. The licensee relies on the availability of computer systems and enhanced processes in personnel monitoring and access control to relieve HP technicians of access control, personnel monitoring, and dosimetry tasks, and, thereby have these personnel available to cover any vital response activities. 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.

(3) Onsite (Out-of-Plant) Surveys

For onsite (out-of-plant) surveys, the licensee proposes to change the E-plan from one technician at 30 minutes and one technician at 60 minutes to one on-shift technician (this technician will be sent to the exclusion area boundary in the plume direction, satisfying both the onsite (out-of-plant) and offsite survey functions) and one technician at 90 minutes. The guidance for onsite surveys in NUREG-0654/FEMA-REP-1, Table B-1 and the current SONGS E-plan state that one HP technician should be available within 30minutes and a second HP technician should be available within 60 minutes.

The licensee notes that the on-shift staffing includes one HP supervisor, three HP technicians, and one chemistry technician. Five on-shift staff members cover the key HP functions of dose assessment, in-plant repair team coverage, onsite/in-plant monitoring, and sampling/analysis. The licensee stated that radiation support functions, such as access control, personnel monitoring, and dosimetry, are covered by plant process enhancements (i.e., newer technology/tools) using available equipment, such as portal monitors, self-alarming dosimeters, and an automated access control point. The licensee has active radiation exposure permits (REPs) that remain active in the Integrated HP system and can be used if an emergency is declared. The REP access control system verifies qualifications, dose margins, and access requirements and, thus, eliminates tasks previously performed by HP technicians manually.

The NRC staff believes that adequate resources are available, based on the assignment of on-shift technicians and installed monitors, to support onsite (out-of-plant surveys) within 90 minutes of event classification prior to staff augmentation. The licensee states it relies on the availability of computer systems, installed area radiation and effluent monitors, and enhanced processes to relieve HP technicians of access control, personnel monitoring and dosimetry tasks, thereby freeing these personnel to cover any vital response activities. 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.

(4) In-Plant Surveys

The guidance in NUREG-0654/FEMA-REP-1, Table B-1, for in-plant surveys and the existing SONGS E-plan is for one onsite HP technician, one technician within 30 minutes, and another technician within 60 minutes. The licensee proposes to change the E-plan from (1) one on-shift HP technician, one technician at 30 minutes, and one technician at 60 minutes, to (2) one onsite HP technician and two technicians at 90 minutes.

The licensee notes that the on-shift staffing includes one HP supervisor, three HP technicians and one chemistry technician. Five on-shift staff members cover the key HP functions of dose assessment, in-plant repair team coverage, onsite/in-plant monitoring, and sampling/analysis. The licensee stated that radiation support functions, such as access control, personnel monitoring, and dosimetry, are covered by plant process enhancements (i.e., newer technology and tools) using available equipment, such as portal monitors, self-alarming dosimeters, and an automated access control point. The licensee has active REPs that remain active in the Integrated HP system and can be used if an emergency is declared. The REP access control system verifies qualifications, dose margins, and access requirements, and, thus, eliminates tasks previously performed by HP technicians manually. In addition, the HP supervisor will determine the necessary level of support based on conditions assessed through the use of area radiation monitors located throughout the plant.

The licensee states that depending upon plant conditions, the HP supervisor will assign the three on-shift HP technicians the responsibility of performing onsite (out-of-plant) surveys, in-plant surveys, and protective action duties until the recall of nine additional HP personnel is complete (within 90 minutes). The on-shift HP supervisor utilizes the on-shift HP technicians to address these survey capabilities and determines the need to dispatch HP personnel to identify or verify radiological areas. This decision is based on the response by the on-shift operations and maintenance personnel or direction provided by the SM/EC.

The NRC staff concludes that adequate resources are available, based on the assignment of on-shift technicians and installed monitors, to support in-plant surveys within 90 minutes of event classification prior to staff augmentation. The licensee states that it relies on the availability of computer systems, installed area radiation and effluent monitors, and enhanced processes to relieve HP technicians of the responsibility of access control, personnel monitoring and dosimetry tasks and, thereby, have the HP Technicians available to cover any vital response activities. The NRC staff finds that 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.

(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 at 60 minutes to (2) one on-shift technician and one technician 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 postaccident 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 30 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 60-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.

Protective Actions (In-Plant)

The guidance in NUREG-0654/FEMA-REP-1, Table B-1,for protective actions (in-plant) indicates that two HP technicians should be assigned to each shift to support radiation protection activities. However, these HP technicians may be shift personnel assigned other functions. This staff will be augmented with two additional HP technicians in 30 minutes and two additional HP technicians in 60 minutes. In accordance with this guidance, the current SONGS E-plan augments the on-shift staffing with two additional HP technicians in 30 minutes and two

additional HP technicians in 60 minutes The licensee proposes to change the E-plan to one on-shift HP technician augmented by three additional HP technicians within 90 minutes (the duties of the fourth Table B-1 responder will be fulfilled by an on-shift HP technician).

The licensee stated that the on-shift staffing includes one HP supervisor, three HP technicians, and one chemistry technician. The five on-shift staff memebers cover the key HP functions of dose assessment, in-plant repair team coverage, onsite/in-plant monitoring, and sampling/analysis. The licensee stated that radiation support functions, such as access control, personnel monitoring, and dosimetry are covered by plant process enhancements (i.e., newer technology/tools) using available equipment, such as portal monitors, self-alarming dosimeters, and an automated access control point. The licensee has active REPs that remain active in the Integrated HP system and can be used if an emergency is declared. The REP access control system verifies qualifications, dose margins and access requirements, and, thereby, eliminates tasks previously performed by HP technicians manually. In addition, the HP supervisor will determine the necessary level of support based on conditions assessed through the use of area radiation monitors located throughout the plant and will be able to provide additional information regarding entry into the radiologically controlled area (RCA) during a radiological release. Working with the SM/EC, the HP supervisor will coordinate and prioritize activities in the RCA. The use of a computer-based system for performing dose assessment requires little of the HP supervisor's attention and, thus, allows him/her time for assessing radiological conditions and briefing of personnel.

The licensee states that, depending upon plant conditions, the HP supervisor will assign the three on-shift HP technicians the responsibility of performing onsite (out-of-plant) surveys, in-plant surveys, and protective action duties until the recall of nine additional HP personnel is complete (within 90 minutes). The on-shift HP supervisor will determine the necessary level of support based on conditions assessed through the use of area radiation monitors located throughout the plant areas and through information provided by surveys of the affected areas.

The NRC staff finds that adequate resources are available, based on the assignment of on-shift technicians, to support in-plant protective actions within 90 minutes of event classification prior to staff augmentation. The licensee stated it relies on the availability of computer systems and enhanced processes to relieve HP technicians of access control, personnel monitoring and dosimetry tasks, and, thereby, have the HP technicians available to cover any vital response activities. The NRC staff finds the compensation described above to extend the required augmentation time for this task to be acceptable. Therefore, the NRC staff concludes that 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.

4.0 STATE COORDINATION

SCE has coordinated these proposed changes with the Interjurisdictional Planning Committee, which consists of local offsite agencies, at a meeting on January 9, 2007. Members of the California Office of Emergency Services were also in attendance. The committee provided its unanimous support for the proposed change. The licensee provided the meeting minutes as Attachment 1 to its letter dated June 18, 2008.

5.0 CONCLUSION

The NRC staff finds that the proposed E-plan changes by the licensee continue to meet the standards in 10 CFR 50.47(b) and the requirements of Appendix E to 10 CFR Part 50. These changes also provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. Therefore, the NRC staff concludes that the licensee's proposed changes to the SONGS E-plan, outlined in its application dated June 18, 2007, and as supplemented by letters dated June 18 and September 24, 2008, are acceptable.

6.0 REFERENCES

1. SCE Letter, "Request for Emergency Plan Change Increase in ERO Augmentation Time," June 18, 2007 (ADAMS Accession No. ML071700672).

2. SCE Letter, "Response to Request for Additional Information Regarding Request for Emergency Plan Change Increase in ERO Augmentation Time," June 18, 2008 (ADAMS Accession No. ML082670360).

3. SCE Letter, "Response to Request for Additional Information Regarding Request for Emergency Plan Change Increase in ERO Augmentation Time," September 24, 2008 (ADAMS Accession No. ML082740060).

3. NUREG-0654/FEMA REP-1, Revision 1, Supplement 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980 (ADAMS Accession No. ML040420012).

4. NRC Regulatory Issue Summary 2005-02, "Clarifying the Process for Making Emergency Plan Changes," February 14, 2005 (ADAMS Accession No. ML042580404).

Principal Contributor: M.B. Norris

Date: November 28, 2008

November 28, 2008

A copy of the NRC safety evaluation is enclosed.

Sincerely,

/RA by Bruce A. Boger for/

Eric J. Leeds, Director
Office of Nuclear Reactor Regulation

Enclosure:
Safety Evaluation

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

cc w/encl: Distribution via ListServ

DISTRIBUTION:
PUBLIC
LPLIV r/f
RidsAcrsAcnwMailCenter
RidsNrrDirsItsb
RidsNrrDorlDpr
RidsNrrDorlLpl4
RidsNrrPMSanonofre
RidsNrrLAGLappert
RidsOgcRp
RidsRgn4MailCenter
MNorris, NSIR/
GHill, OIS (4)

ADAMS Accession No.: ML083230608

* Only Editorial Changes from Staff-Provided SE

OFFICE	DORL/LPL4/PM	DORL/LPL4/LA	NSIR/DPR/BC*	Tech. Editor
NAME	NKalyanam	GLappert	KWilliams	KAzariah-Kribbs
DATE	11/24/08	11/18/08	11/3/08	11/25/08

OFFICE	DORL/LPL4/BC(A)	NRR/DORL/DIR	NRR/DIR	
NAME	JDonohew	JGiitter	ELeeds	
DATE	11/28/08	11/28/08	11/28/08	

OFFICIAL RECORD COPY