

February 28, 2006

Mr. Richard M. Rosenblum
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 2 AND 3 -
ISSUANCE OF AMENDMENTS RE: REVISION OF FACILITY OPERATING
LICENSE CONDITION 2.B(6) SPECIAL NUCLEAR MATERIALS
(TAC NOS. MC7777 AND MC7778)

Dear Mr. Rosenblum:

The Commission has issued the enclosed Amendment No.202 to Facility Operating License No. NPF-10 and Amendment No.193 to Facility Operating License No. NPF-15 for San Onofre Nuclear Generating Station (SONGS), Units 2 and 3, respectively. The amendments consist of changes to the FOLs in response to your application dated July 15, 2005, and as supplemented by letter dated January 20, 2006.

The amendments change the SONGS Units 2 and 3 Facility Operating License Condition 2.B.(6). This change would add a reference to byproduct and special nuclear materials produced during the decommissioning of SONGS Unit 1.

A copy of our related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

Sincerely,

/RA/

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

Docket Nos. 50-361 and 50-362

Enclosures: 1. Amendment No. 202 to NPF-10
2. Amendment No. 193 to NPF-15
3. Safety Evaluation

cc w/encls: See next page

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ACCESSION NO: ML060600371

OFFICE	NRR/LPL4/PM	NRR/LPL4/LA	NRR/DIRS	OGC	NRR/LPL4/BC
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DATE	2/16/06	2/16/06		2/23/06	2/27/06

SOUTHERN CALIFORNIA EDISON COMPANY

SAN DIEGO GAS AND ELECTRIC COMPANY

THE CITY OF RIVERSIDE, CALIFORNIA

THE CITY OF ANAHEIM, CALIFORNIA

DOCKET NO. 50-361

SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 202
License No. NPF-10

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Southern California Edison Company, et al. (SCE or the licensee), dated July 15, 2005, and as supplemented by letter dated January 20, 2006, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Facility Operating License No. NPF-10 as indicated in the attachment to this license amendment.
3. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

David Terao, Chief
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment: Changes to Page 3 of the Facility
Operating License No. NPF-10

Date of Issuance: February 28, 2006

ATTACHMENT TO LICENSE AMENDMENT NO. 202

FACILITY OPERATING LICENSE NO. NPF-10

DOCKET NO. 50-361

Replace the following page of the Facility Operating License No. NPF-10 with the attached revised page. The revised page is identified by an amendment number and contains marginal lines indicating the areas of change.

REMOVE

- 3 -

INSERT

- 3 -

SOUTHERN CALIFORNIA EDISON COMPANY

SAN DIEGO GAS AND ELECTRIC COMPANY

THE CITY OF RIVERSIDE, CALIFORNIA

THE CITY OF ANAHEIM, CALIFORNIA

DOCKET NO. 50-362

SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 193
License No. NPF-15

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Southern California Edison Company, et al. (SCE or the licensee), dated July 15, 2005, and as supplemented by letter dated January 20, 2006, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Facility Operating License No. NPF-15 as indicated in the attachment to this license amendment.
3. This license amendment is effective as of the date of its issuance and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

David Terao, Chief
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment: Changes to Page 3 of the Facility
Operating License No. NPF-15

Date of Issuance: February 28, 2006

ATTACHMENT TO LICENSE AMENDMENT NO. 193

FACILITY OPERATING LICENSE NO. NPF-15

DOCKET NO. 50-362

Replace the following page of the Facility Operating License No. NPF-15 with the attached revised page. The revised page is identified by an amendment number and contains marginal lines indicating the areas of change.

REMOVE

- 3 -

INSERT

- 3 -

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 202 TO FACILITY OPERATING LICENSE NO. NPF-10
AND AMENDMENT NO. 193 TO FACILITY OPERATING LICENSE NO. NPF-15
SOUTHERN CALIFORNIA EDISON COMPANY
SAN DIEGO GAS AND ELECTRIC COMPANY
THE CITY OF RIVERSIDE, CALIFORNIA
THE CITY OF ANAHEIM, CALIFORNIA
SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 2 AND 3
DOCKET NOS. 50-361 AND 50-362

1.0 INTRODUCTION

By application dated July 15, 2005 (Agencywide Documents and Access Management System (ADAMS) Accession No. ML052000278), as supplemented by letter dated January 20, 2006 (ADAMS Accession No. ML060240359), Southern California Edison Company (SCE or the licensee) requested changes to the Facility Operating License No. NPF-10 and Facility Operating License No. NPF-15 for San Onofre Nuclear Generating Station (SONGS), Units 2 and 3, respectively. The supplement dated January 20, 2006, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on September 13, 2005 (70 FR 54089).

The amendments are for the SONGS, Units 2 and 3, operating licenses, but they will involve Unit 1, which is not an operating nuclear plant and is in the process of being decommissioned. The amendments would revise License Condition 2.B.(6) for both SONGS, Units 2 and 3, by (1) deleting the sentence "Transshipment of Unit 1 fuel between Units 1 and [2 or 3] shall be in accordance with SCE letters to U.S. Nuclear Regulatory Commission dated . . . and in accordance with the Quality Assurance requirements of 10 CFR [Title 10 of the *Code of Federal Regulations*] Part 71" and (2) adding the phrase "and by the decommissioning of San Onofre Nuclear Generating Station Unit 1" to the remaining sentence in the license condition. This change would recognize that Unit 1 is now in the stage of decommissioning and that in the future any radioactive waste water produced in the further decommissioning of Unit 1 would be released from the San Onofre site by transferring the waste water from Unit 1 to Units 2 and 3. The processing (if required) and discharging of this waste water would be using the Units 2 and 3 radioactive waste system and ocean outfall discharge line.

2.0 REGULATORY EVALUATION

The regulatory requirements on which the Nuclear Regulatory Commission (NRC) staff based its acceptance are as follows:

- 10 CFR 20.1101 (a) and (b), "Radiation protection programs,"
- 10 CFR Part 50, Appendix A, General Design Criteria [GDC], Section VI, "Fuel and Radioactivity Control," Criterion 60, "Control of releases of radioactive materials to the environment," and Criterion 64 "Monitoring radioactivity releases,"
- 10 CFR Part 20, Appendix B, Table 2, "Effluent Coefficients," Column 2, "Water ($\mu\text{Ci/ml}$) [(micro curies per milliliter)],"
- 10 CFR 50.36a, "Technical specifications on effluents from nuclear power reactors," and
- 10 CFR Part 50, Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion 'As Low As Reasonably Achievable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents."

The NRC staff based its acceptance on the following guidance:

- NUREG-1301 - "Offsite Dose Calculation Manual Guidance: Standard Radiological Effluent Controls for Pressurized Water Reactors" (Generic Letter [GL] 89-01, Supplement No. 1)

3.0 TECHNICAL EVALUATION

The change proposed by the licensee revises Operating Licenses NPF-10 and NPF-15 by amending License Condition in 2.B.(6) of the Facility Operating Licenses to state:

"SCE, pursuant to the Act and 10 CFR Parts 30, 40, and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of San Onofre Nuclear Generating Station, Units 1 and 2/3, and by the decommissioning of San Onofre Nuclear Generating Station Unit 1."

The SONGS Unit 1 Intake and Outfall Structure will be decommissioned and will no longer be a discharge flow path for the SONGS Unit 1 systems. Liquids that still need to be discharged include the yard drain sump system, the dewatering of various locations, and the disposal of residual waste water.

The yard drain sump system collects and processes rainfall and drainage from the approximately 11 acre SONGS Unit 1 portion of the site and adjacent areas. The sump system is being modified to accommodate decommissioning activities and is assumed to collect wastewater with potentially small amounts of radioactive contamination for discharge. An effluent radiation monitor will be included in the sump system modification for the yard drain sump to provide the monitoring required for the radioactive liquid effluent release point per 10 CFR Part 20 and 10 CFR Part 50, Appendix A, GDC 60 and 64. The SONGS Unit 1 yard

sump radiation monitor and interlock functions will be used and will continue to meet the requirements of 10 CFR Part 20 and 10 CFR Part 50 for discharges through the SONGS Units 2 and 3 outfall. The administrative controls and the design of the associated interlocks provide assurance against releases of radioactive liquids above regulatory limits. To minimize the potential for deficiencies associated with leaks, the piping was specifically chosen to resist corrosion associated with the sump contents and the marine environment. Additionally, it is SCE's intent to perform a leak check of the North Industrial Area Yard Drainage Sump Pump Discharge Piping prior to placing that piping into operation.

The effluent pathway for the yard drain sump must be redirected from the SONGS Unit 1 outfall to the SONGS Units 2 and 3 outfalls in order to proceed with decommissioning. The new yard drain effluent pathway would be from the yard sump structure through an effluent radiation monitor and piped directly to the SONGS Units 2 or 3 outfall structure. The flow may be directed to either outfall, depending upon plant conditions. The piping begins in a Unit 1 Radiological Controlled Area, traverses the Unit 1 Industrial Area and then enters directly into the Units 2 and 3 Protected Area. These areas are contiguous to each other. Health Physics procedure S0123-VII-20.16 is used to comply with 10 CFR Part 20 for the Units 2 and 3 Protected Area and is applicable to the Unit 1 Industrial Area. The maximum flow rate from the yard drain sump would be 6,000 gallons per minute (gpm), and would mix with a minimum SONGS Units 2 and 3 outfall flow rate of approximately 400,000 gpm for two circulating water pumps. The maximum concentration for the effluent from the yard drain sump is expected to be less than $1.0E-05$ $\mu\text{Ci/ml}$ (gross β - γ) based on sampling and analysis of the effluent over the last four years (2001 through 2004).

The dewatering of various locations at the SONGS Unit 1 site involves the installation of dewatering wells to draw down the water table to facilitate the removal of portions of the potentially contaminated turbine building, the fuel storage building, and the reactor auxiliary building subterranean foundations. Each well system will be comprised of a series of deep wells around the building, connecting to a piping loop system which will direct the water to settling tanks prior to transfer to the Yard Drain Sump system. The water will then be discharged to the SONGS Units 2 or 3 outfall following the same release path as discussed above. The dewatering flow is expected to be between 1,200 and 2,100 gpm.

Other sources of SONGS Unit 1 waste water will come from residual water in the Liquid Radwaste treatment system and decontamination of the spent fuel pool. Once the liquid radwaste system has been taken out of service and resin has been removed, waste water will still need to be processed and released. The collected waste water will be either processed at SONGS Unit 1 utilizing a portable filtration skid to reduce the concentration levels to less than $2.0E-5$ $\mu\text{Ci/ml}$ as a minimum and then released to the SONGS Unit 2 or 3 outfall or transferred over to SONGS Units 2 and 3 radwaste sump to be processed utilizing the normal radwaste processing system to achieve discharge concentrations below 10 CFR Part 20, Appendix B, Table II, column 2, for release to the SONGS Units 2 and 3 outfall. The primary contributing isotopes are expected to be Cs-134, Cs-137, and Co-60.

All newly installed piping will be included in the routine ongoing monitoring program in the protected area with area monitoring thermoluminescent dosimeters and routine periodic radiological surveys. Any unanticipated radiation levels above defined administrative control levels will be resolved and/or corrected.

The licensee demonstrates compliance with the requirements of 10 CFR 20.1101 (a) and (b), by having a radiation protection program in place and by utilizing procedures to control radiation exposure to their workers. Additionally, the licensee's amendment request utilizes the guidance in NUREG-1301, GL 89-01, Supplement No. 1, "Offsite Dose Calculation Manual Guidance: Standard Radiological Effluent Controls for Pressurized Water Reactors."

Based on the above, the licensee meets the guidance of GL 89-01. Therefore, it is acceptable and meets the regulatory requirements of 10 CFR 20.1101, 10 CFR Part 20, Appendix B, 10 CFR 50.36a, 10 CFR Part 50, Appendix A (GDC 60 and 64), and 10 CFR Part 50, Appendix I.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the California State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding published on September 13, 2005 (70 FR 54089). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Ronald V. Schmitt

Date: February 28, 2006

San Onofre Nuclear Generating Station
Units 2 and 3

cc:

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