May 17, 1993

Docket Nos. 50-361
and 50-362

Mr. Harold B. Ray
Senior Vice President
Southern California Edison Co.
Irvine Operations Center
23 Parker Street
Irvine, California 92718

Mr. Edwin A. Guiles
Vice President
Engineering and Operations
San Diego Gas & Electric Co.
101 Ash Street
San Diego, California 92112

Gentlemen:

SUBJECT: ISSUANCE OF AMENDMENT FOR SAN ONOFRE NUCLEAR GENERATING STATION, UNIT NO. 2 (TAC NO. M85273) AND UNIT NO. 3 (TAC NO. M85274)

The Commission has issued the enclosed Amendment No. 104 to Facility Operating License No. NPF-10 and Amendment No. 93 to Facility Operating License No. NPF-15 for San Onofre Nuclear Generating Station, Unit Nos. 2 and 3. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated December 24, 1992, designated by you as PCN-406.

These amendments will revise TS 3/4.9.7, "Fuel Handling Machine - Spent Fuel Storage Pool Building," to allow long-term use of the spent fuel cask pool cover. The cask pool covers will be used to provide additional work area adjacent to the spent fuel pool in both Units 2 and 3 fuel handling buildings.

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

Sincerely,

Original signed by:

Mel B. Fields, Project Manager
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No.104 to NPF-10
2. Amendment No. 93 to NPF-15
3. Safety Evaluation

cc w/enclosures:
See next page

19061

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

May 17, 1993

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Mel B. Fields

Mel B. Fields, Project Manager
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No.104 to NPF-10
2. Amendment No.93 to NPF-15
3. Safety Evaluation

cc w/enclosures:
See next page

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

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 NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 104
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 December 24, 1992, 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 Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. NPF-10 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 104 , are hereby incorporated in the license. Southern California Edison Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and must be fully implemented no later than 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Theodore R. Quay

Theodore R. Quay, Director
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 17, 1993

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 104 TO FACILITY OPERATING LICENSE NO. NPF-10

DOCKET NO. 50-361

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the areas of change. The corresponding overleaf pages are also provided to maintain document completeness.

REMOVE	INSERT
3/4 9-7	3/4 9-7
B 3/4 9-2	B 3/4 9-2
B 3/4 9-2a	B 3/4 9-2a

REFUELING OPERATIONS

3/4.9.7 FUEL HANDLING MACHINE - SPENT FUEL STORAGE POOL BUILDING

LIMITING CONDITION FOR OPERATION

3.9.7 Loads in excess of 2000 pounds shall be prohibited from travel over fuel assemblies in the storage pool except for the following two cases:

a. Spent fuel pool gates shall not be carried at a height greater than 30 inches (elevation 36' 4") over the fuel racks.

b. Test equipment skid (4500 pounds) shall not be carried at a height greater than 72 inches (elevation 39' 10") over rack cells which contain Unit 2 fuel assemblies or greater than 30 feet 8 inches (elevation 64' 6") over rack cells which contain Unit 1 fuel assemblies.

APPLICABILITY: With fuel assemblies in the storage pool.

ACTION:

With the requirements of the above specification not satisfied, place the fuel handling machine in a safe condition.

SURVEILLANCE REQUIREMENTS

4.9.7 Fuel handling machine interlocks and physical stops which prevent fuel handling machine travel with loads in excess of 2000 pounds over fuel assemblies shall be demonstrated OPERABLE within 7 days prior to fuel handling machine use and at least once per 7 days thereafter during fuel handling machine operation.

3/4.9.6 REFUELING MACHINE

The OPERABILITY requirements for the refueling machine ensure that: (1) the refueling machine will be used for movement of all fuel assemblies including those with a CEA inserted, (2) each machine has sufficient load capacity to lift a fuel assembly including those with a CEA, and (3) the core internals and pressure vessel are protected from excessive lifting force in the event they are inadvertently engaged during lifting operations.

Five finger CEAs are removed from the reactor vessel either along with the associated fuel bundle utilizing the refueling machine or can be removed without the associated fuel bundle utilizing the refueling machine auxiliary hoist. The four finger CEAs are inserted through the upper guide structure with two fingers in each of the two adjacent fuel bundles in the periphery of the core. The four finger CEAs are either removed with the upper guide structure and lift rig or can be removed with separate tooling prior to upper guide structure removal utilizing the auxiliary hoist of the polar crane or the refueling machine auxiliary hoist.

Coupling and uncoupling of the CEAs and the CEDM drive shaft extensions is accomplished using one of the gripper operating tools. The coupling and uncoupling is verified by weighing the drive shaft extensions.

3/4.9.7 FUEL HANDLING MACHINE - SPENT FUEL STORAGE BUILDING

A. Refueling Operations

The restriction on movement of loads in excess of the nominal weight of a fuel assembly, CEA and associated handling tool over other fuel assemblies in the storage pool ensures that in the event this load is dropped (1) the activity release will be limited to that contained in six fuel assemblies, and (2) any possible distortion of fuel in the storage racks will not result in a critical array. This assumption is based on the calculated results which demonstrate that, with credit taken for the fuel handling building filters, the offsite doses would be well within (less than 25%) the 10 CFR 100 limits.

3/4.9.8 SHUTDOWN COOLING AND COOLANT CIRCULATION

The requirement that at least one shutdown cooling train be in operation ensures that (1) sufficient cooling capacity is available to remove decay heat and maintain the water in the reactor pressure vessel below 140°F as required during the REFUELING MODE, and (2) sufficient coolant circulation is maintained through the reactor core to minimize the effects of a boron dilution incident and prevent boron stratification.

The requirement to have two shutdown cooling trains OPERABLE when there is less than 23 feet of water above the reactor pressure vessel flange, ensures that a single failure of the operating shutdown cooling loop will not result in a complete loss of decay heat removal capacity. With the reactor vessel head removed and 23 feet of water above the reactor pressure vessel flange, a large heat sink is available for core cooling, thus in the event of a failure of the operating shutdown cooling train, adequate time is provided to initiate emergency procedures to cool the core.

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

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 NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 93
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 December 24, 1992, 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 Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. NPF-15 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 93 , are hereby incorporated in the license. Southern California Edison Company shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment is effective as of the date of its issuance and must be fully implemented no later than 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Theodore R. Quay

Theodore R. Quay, Director
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 17, 1993

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 93 TO FACILITY OPERATING LICENSE NO. NPF-15

DOCKET NO. 50-362

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the areas of change. The corresponding overleaf pages are also provided to maintain document completeness.

REMOVE	INSERT
3/4 9-7	3/4 9-7
B 3/4 9-2	B 3/4 9-2
B 3/4 9-2a	B 3/4 9-2a

3/4.9.7 FUEL HANDLING MACHINE - SPENT FUEL STORAGE POOL BUILDING

LIMITING CONDITION FOR OPERATION

3.9.7 Loads in excess of 2000 pounds shall be prohibited from travel over fuel assemblies in the storage pool except for the following two cases:

a. Spent fuel pool gates shall not be carried at a height greater than 30 inches (elevation 36′ 4") over the fuel racks.

b. Test equipment skid (4500 pounds) shall not be carried at a height greater than 72 inches (elevation 39′ 10") over rack cells which contain Unit 3 fuel assemblies or greater than 30 feet 8 inches (elevation 64′ 6") over rack cells which contain Unit 1 fuel assemblies.

APPLICABILITY: With fuel assemblies in the storage pool.

ACTION:

With the requirements of the above specification not satisfied, place the fuel handling machine in a safe condition.

SURVEILLANCE REQUIREMENTS

4.9.7 Fuel handling machine interlocks and physical stops which prevent fuel handling machine travel with loads in excess of 2000 pounds over fuel assemblies shall be demonstrated OPERABLE within 7 days prior to fuel handling machine use and at least once per 7 days thereafter during fuel handling machine operation.

BASES

3/4.9.6 REFUELING MACHINE

The OPERABILITY requirements for the refueling machine ensure that: (1) the refueling machine will be used for movement of all fuel assemblies including those witha a CEA inserted, (2) each machine has sufficient load capacity to lift a fuel assembly including those with a CEA, and (3) the core internals and pressure vessel are protected from excessive lifting force in the event they are inadvertently engaged during lifting operations.

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Coupling and uncoupling of the CEAs and the CEDM drive shaft extensions is accomplished using one of the gripper operating tools. The coupling and uncoupling is verified by weighing the drive shaft extensions.

3/4.9.7 FUEL HANDLING MACHINE - SPENT FUEL STORAGE BUILDING

A. Refueling Operation

The restriction on movement of loads in excess of the nominal weight of a fuel assembly, CEA and associated handling tool over other fuel assemblies in the storage pool ensures that in the event this load is dropped (1) the activity release will be limited to that contained in six fuel assemblies, and (2) any possible distortion of fuel in the storage racks will not result in a critical array. This assumption is based on the calculated results which demonstrate that, with credit taken for the fuel handling building filters, the offsite doses would be well within (less than 25%) the 10 CFR 100 limits.

3/4.9.8 SHUTDOWN COOLING AND COOLANT CIRCULATION

The requirement that at least one shutdown cooling train be in operation ensures that (1) sufficient cooling capacity is available to remove decay heat and maintain the water in the reactor pressure vessel below 140°F as required during the REFUELING MODE, and (2) sufficient coolant circulation is maintained through the reactor core to minimize the effects of a boron dilution incident and prevent boron stratification.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO.104 TO FACILITY OPERATING LICENSE NO. NPF-10

AND AMENDMENT NO. 93 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 letter dated December 24, 1992, Southern California Edison Company, et al. (SCE or the licensee) submitted a request for changes to the Technical Specifications (TS) for San Onofre Nuclear Generating Station, Unit Nos. 2 and 3. The proposed changes would revise TS 3/4.9.7, "Fuel Handling Machine - Spent Fuel Storage Pool Building," to allow continued use of the spent fuel cask pool cover. The existing TS states that loads in excess of 2000 pounds shall be prohibited from travel over fuel assemblies in the storage pool except for four cases, as outlined in parts a through d of this TS. TS 3.9.7.c provided for temporary use of the cask pool cover during the reracking project and required that the cover, fuel, and racks be removed from the cask pool on completion of the reracking process. This proposed TS change will delete this requirement and will allow the long-term use of the cask pool cover. The proposed TS change would also delete TS 3.9.7.d, which provided on a temporary basis for lifts over stored spent fuel in order to accomplish the reracking project. This deletion is editorial in nature and reflects that the reracking project is complete.

2.0 EVALUATION

The cask pool cover consists of four segments, which will be bolted together with installation beams (strongbacks) to create one complete assembly prior to its placement over the cask pool. The cover assembly will be lifted by the Cask Handling Crane, then lowered over the cask pool until it rests on the cask pool curbs. Once in place, the strongbacks would normally be removed, and the confining nature of the cask pool walls would hold the cover in place.

Approval for temporary use of the cask pool cover was requested by the licensee by letter dated March 10, 1989, as part of the San Onofre Units 2 and 3 reracking project. The analysis provided by the licensee discussed both the structural effects of a heavy load drop over the cask pool cover and the effects such a drop would have on spent fuel stored in the cask pool. The NRC staff approved reracking and temporary use of the cask pool cover in Amendments 88 and 77 to the Operating Licenses of Units 2 and 3, respectively, by letter dated May 1, 1990. Included in the staff's approval of temporary use of the cover was the requirement that the cover be removed after reracking. This requirement was included to ensure continued safety during normal operation of the cask pool.

The primary focus of the staff's earlier review of the use of this cask pool cover was to ensure the safety of the spent fuel stored in this pool during the reracking project. The licensee no longer needs to use the cask pool to store spent fuel, and has committed not to use the cask pool for storage of spent fuel or spent fuel racks if the cask pool cover is in use. The restrictions and procedures for the installation and removal of the cask pool cover are the same as the restrictions and procedures approved by the staff during the reracking project. On this basis, the staff finds the use of the cask pool cover, as described in the licensee's December 24, 1992 letter, to be acceptable.

SCE has incorporated load restrictions involving use of the cask pool cover into the San Onofre Units 2 and 3 Heavy Loads Program. These load restrictions are designed to prevent a dropped load from resulting in perforation of the cover and unacceptable leakage from the pool. These load restrictions are also designed to prevent loads from rolling into the spent fuel pool. The staff has reviewed the proposed load restrictions outlined in the December 24, 1992 licensee letter, and concludes that the new load restrictions are acceptable, since these load restrictions are more conservative than the load restrictions approved by the staff for the reracking project.

3.0 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.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. 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 (58 FR 8785).

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.

5.0 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 amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Mel B. Fields

Date: May 17, 1993