

June 15, 1993

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. M86362) AND UNIT NO. 3 (TAC NO. M86363)

The Commission has issued the enclosed Amendment No.107 to Facility Operating License No. NPF-10 and Amendment No. 96 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 April 13, 1993, designated by you as PCN-427.

These amendments will revise TS 3/4.8.1, "A.C. Sources," to provide a one-time exception to TS 4.8.1.1.1.a to allow replacement of the 480V transformers B04X and B06X during the Units 2 and 3 Cycle 7 refueling outages.

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.107 to NPF-10
2. Amendment No. 96 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

June 15, 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
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SUBJECT: ISSUANCE OF AMENDMENT FOR SAN ONOFRE NUCLEAR GENERATING STATION,
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These amendments will revise TS 3/4.8.1, "A.C. Sources," to provide a one-time exception to TS 4.8.1.1.1.a to allow replacement of the 480V transformers B04X and B06X during the Units 2 and 3 Cycle 7 refueling outages.

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,

A handwritten signature in cursive script, reading "Mel B. Fields", is written over the typed name.

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

Enclosures:

1. Amendment No.107 to NPF-10
2. Amendment No. 96 to NPF-15
3. Safety Evaluation

cc w/enclosures:
See next page

Messrs. Ray and Guiles
Southern California Edison Company

San Onofre Nuclear Generating
Station, Unit Nos. 2 and 3

cc:

James A. Beoletto, Esq.
Southern California Edison Company
Irvine Operations Center
23 Parker Street
Irvine, California 92718

Mr. Richard J. Kosiba, Project Manager
Bechtel Power Corporation
12440 E. Imperial Highway
Norwalk, California 90650

Chairman, Board of Supervisors
County of San Diego
1600 Pacific Highway, Room 335
San Diego, California 92101

Mr. Robert G. Lacy
Manager, Nuclear Department
San Diego Gas & Electric Company
P. O. Box 1831
San Diego, California 92112

Alan R. Watts, Esq.
Rourke & Woodruff
701 S. Parker St. No. 7000
Orange, California 92668-4702

Mr. Steve Hsu
Radiologic Health Branch
State Department of Health Services
Post Office Box 942732
Sacramento, California 94234

Mr. Sherwin Harris
Resource Project Manager
Public Utilities Department
City of Riverside
3900 Main Street
Riverside, California 92522

Resident Inspector/San Onofre NPS
c/o U.S. Nuclear Regulatory Commission
Post Office Box 4329
San Clemente, California 92674

Mr. Charles B. Brinkman, Manager
Washington Nuclear Operations
ABB Combustion Engineering Nuclear Power
12300 Twinbrook Parkway, Suite 330
Rockville, Maryland 20852

Mayor
City of San Clemente
100 Avenida Presidio
San Clemente, California 92672

Mr. R. W. Krieger, Station Manager
Southern California Edison Company
San Onofre Nuclear Generating Station
P. O. Box 128
San Clemente, California 92674-0128

Regional Administrator, Region V
U.S. Nuclear Regulatory Commission
1450 Maria Lane, Suite 210
Walnut Creek, California 94596

Mr. Don J. Womeldorf
Chief, Environmental Management Branch
California Department of Health Services
714 P Street, Room 616
Sacramento, California 95814



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. 107
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 April 13, 1993, 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.

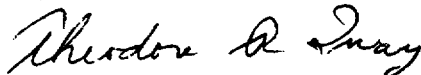
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. NPF-10 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 107, 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, 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: June 15, 1993

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 107 TO FACILITY OPERATING LICENSE NO. NPF-10

DOCKET NO. 50-361

Revise Appendix A Technical Specifications by removing the page identified below and inserting the enclosed page. The revised page is identified by the captioned amendment number and contain marginal lines indicating the areas of change.

REMOVE

3/4 8-2

INSERT

3/4 8-2

ELECTRICAL POWER SYSTEM

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class IE distribution system shall be:

- a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments and indicated power availability.

If tie breakers 3A0416 or 3A0603 are used to provide a source of power, the following busses are required.

for 3A0416
3A04
3B04**
3D1

for 3A0603
3A06
3B06**
3D2

- b. Demonstrated OPERABLE at least once per refueling interval during shutdown by transferring (manually and automatically) unit power from the normal offsite power source to the alternate offsite power source. The provisions of Technical Specification 4.0.2 are not applicable.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

- a. In accordance with the frequency specified in Table 4.8-1 on a STAGGERED TEST BASIS by:
 1. Verifying the fuel level in the day fuel tank,
 2. Verifying the fuel level in the fuel storage tank,
 3. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the day tank,
 4. Verifying the diesel generator starts from ambient conditions and accelerates to at least 900 rpm.* The generator voltage and frequency shall be 4360 ± 436 volts and 60 ± 1.2 Hz after reaching 900 rpm. The diesel generator shall be started for this test by using one of the following signals:

*A diesel generator start (in less than 10 seconds) from ambient conditions shall be performed at least once per 184 days. All other engine starts for the purpose of this surveillance testing may be preceded by an engine pre-lube period and/or other warmup procedures recommended by the manufacturer so that mechanical stress and wear on the diesel engine is minimized.

**During Unit 3 Cycle 7 refueling outage, for the replacement of transformers 3B04X and 3B06X, tie breakers 3A0416 and 3A0603 may be considered OPERABLE with busses 3B04 or 3B06 INOPERABLE provided that Unit 3 enters TS 3.8.2.2 ACTION b for the affected battery charger.



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. 96
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 April 13, 1993, 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.

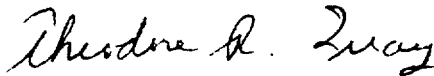
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. NPF-15 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 96, 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, 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: June 15, 1993

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 96 TO FACILITY OPERATING LICENSE NO. NPF-15

DOCKET NO. 50-362

Revise Appendix A Technical Specifications by removing the page identified below and inserting the enclosed page. The revised page is identified by the captioned amendment number and contain marginal lines indicating the areas of change.

REMOVE

3/4 8-2

INSERT

3/4 8-2

ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and each Class 1E 4 kV Bus shall be:

- a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments and indicated power availability.

If tie breakers 2A0417 or 2A0619 are used to provide a source of power, the following busses are required.

for <u>2A0417</u>	for <u>2A0619</u>
2A04	2A06
2B04**	2B06**
2D1	2D2

- b. Demonstrated OPERABLE at least once per refueling interval during shutdown by transferring (manually and automatically) unit power from the normal offsite power source to the alternate offsite power source. The provisions of Technical Specification 4.0.2 are not applicable.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE:

- a. In accordance with the frequency specified in Table 4.8-1 on a STAGGERED TEST BASIS by:
 1. Verifying the fuel level in the day fuel tank,
 2. Verifying the fuel level in the fuel storage tank,
 3. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the day tank,
 4. Verifying the diesel generator starts from ambient conditions and accelerates to at least 900 rpm.* The generator voltage and frequency shall be 4360 ± 436 volts and 60 ± 1.2 Hz after reaching 900 rpm. The diesel generator shall be started for this test by using the manual start signals:
 - a) Manual
 - b) Simulated loss of offsite power by itself
 - c) Simulated loss of offsite power in conjunction with an ESF actuation test signal

*A diesel generator start (in less than 10 seconds) from ambient conditions shall be performed at least once per 184 days. All other engine starts for the purpose of this surveillance testing may be preceded by an engine pre-lube period and/or other warmup procedures recommended by the manufacturer so that mechanical stress and wear on the diesel engine is minimized.

**During Unit 2 Cycle 7 refueling outage, for the replacement of transformers 2B04X and 2B06X, tie breakers 2A0417 and 2A0619 may be considered OPERABLE with busses 2B04 or 2B06 INOPERABLE provided that Unit 2 enters TS 3.8.2.2 ACTION b for the affected battery charger.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 107 TO FACILITY OPERATING LICENSE NO. NPF-10
AND AMENDMENT NO. 96 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 April 13, 1993, 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 3/4.8.1, "A.C. Sources," to provide a one-time exception to TS 4.8.1.1.1.a to allow replacement of the 480V transformers B04X and B06X during the Units 2 and 3 Cycle 7 refueling outages.

2.0 EVALUATION

TS 3.8.1.1 requires two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system to be OPERABLE during Modes 1 through 4 for Units 2 and 3. The primary independent A. C. circuit is through the reserve auxiliary transformer of each unit. The second independent circuit for A. C. power for Units 2 and 3 is through a cross-tie with the opposite unit. For example, if Unit 2 loses its primary source of offsite A. C. power, the Unit 3 4kV cross-tie breakers would close and Unit 2 would receive offsite power through this cross-tie. The cross-ties between the units are established at the 4kV level only. The 4kV/480V transformers B04X and B06X allow 480V loads to be connected to their own unit's respective 4kV buses (2B04 to 2A04, 2B06 to 2A06, etc.). The 125 VDC buses that provide motive power to the tie breakers to close the cross-ties (buses 2D1 and 2D2 for Unit 2 and buses 3D1 and 3D2 for Unit 3) receive power from either their associated safety-related battery banks or from their associated battery chargers. These battery chargers are fed from transformers B04X and B06X.

During the upcoming Units 2 and 3 Cycle 7 refueling outages, the licensee intends to replace the 480V load center transformers B04X and B06X. In accordance with SR 4.8.1.1.1.a, the Unit 2 load centers, including these transformers, are required to be OPERABLE for the Unit 3 cross-tie and vice versa. Therefore, during the Unit 2 Cycle 7 refueling outage, the replacement of load center transformers 2B04X and 2B06X will cause the cross-tie to Unit 3 to become INOPERABLE. The replacement work is expected to require approximately 5 to 7 days per train to complete. TS 3.8.1.1 ACTION a.1 allows only 72 hours with one of the two A. C. sources unavailable before the unit must be shut down. Therefore, Unit 3 would also need to be shut down. This situation will be reversed during the Unit 3 Cycle 7 refueling outage.

This proposed change will add a footnote to SR 4.8.1.1.1.a for Units 2 and 3 to allow the tie breakers to remain OPERABLE with load centers B04 and B06 INOPERABLE because of the 480V transformer replacement during the opposite unit Cycle 7 refueling outage. This will allow the replacement of the transformers (2B04X, 2B06X, 3B04X, and 3B06X) without requiring both units to shut down. This one-time exception to TS 4.8.1.1.1.a will effectively extend the normal 72-hour action statement associated with this TS approximately 5 days. In addition, the Unit 3 SR 4.8.1.1.1.a, which currently lists the incorrect breakers, will be corrected to properly list tie breakers 2A0417 and 2A0619.

Although load centers B04X and B06X are inoperable during the replacement of the 480V transformers, the cross-tie capability (i.e., 125 VDC bus) will be physically maintained operable. This will be accomplished by:

- (1) Making a temporary connection to a battery charger from a non-Class 1E power source to the battery bank associated with the 480V transformer being replaced, and;

- (2) Demonstrating the OPERABILITY of the associated battery bank by performing SR 4.8.2.1.a.1 within 1 hour and at least once per 8 hours thereafter to determine if the battery meets the Category A criteria of TS Table 4.8-2.

The staff concludes that this temporary configuration provides an acceptable level of assurance that the cross-tie function will perform as designed. This conclusion is based on the following considerations.

- (1) Both the normal and temporary configurations begin with a non-Class 1E source, either the unit or Reserve Auxiliary Transformer. The difference between the two configurations is at the 4kV/480V level. The non-Class 1E equipment is designed and maintained in accordance with the same ANSI and NEMA standards for switchgear and motor control centers as the Class 1E normal equipment. The licensee will modify the TS surveillance procedure for the 7-day surveillance on the normal power supply to include the temporary circuit breaker alignment. This surveillance will be performed immediately after switching to temporary power. Based on these factors, the temporary substitution of non-Class 1E equipment for 1E equipment in this situation does not significantly

affect system performance.

(2) Because the associated safety-related battery bank remains OPERABLE by performance of TS 3/4.8.2.2 ACTION b, there is high assurance that the associated 125 VDC bus will be available to perform its intended function of closing the cross-tie breakers when required.

The licensee is planning to remove 4kV bus 2A06 from service for normal maintenance during the Unit 2 Cycle 7 refueling outage. Since this bus is part of the onsite equipment used to connect the backup source of offsite power to Unit 3, removing this bus from service will require entering TS 4.8.1.1.1.a. The one-time exception from TS 4.8.1.1.1.a for replacement of the 480V transformers B04X and B06X does not apply to this situation, and this bus will be placed back in service within the 72-hour period allowed by this TS (or Unit 3 will begin shutdown procedures). During the period when the 4kV bus 2A06 is out of service, the licensee will also perform the TS required discharge test on battery bank 2D2, which is connected to the cross-tie breaker for this 4kV bus. The staff finds the timing of the discharge test to be acceptable, since this cross-tie has no function during the time the 4kV bus is out of service, and because the licensee has committed to return the battery to operable status before the 72-hour LCO entered for the maintenance of the 4 kV bus has expired.

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 change 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 25865). 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: June 15, 1993