

(P)

JUL 25 1983

Docket No.: 50-361

Mr. Robert Dietch
Vice President
Southern California Edison Company
2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770

Mr. James C. Holcombe
Vice President - Power Supply
San Diego Gas & Electric Company
101 Ash Street
Post Office Box 1831
San Diego, California 92112

Gentlemen:

Subject: Issuance of Amendment No. 20 to Facility Operating License No. NPF-10 - San Onofre Nuclear Generating Station, Unit 2

The Nuclear Regulatory Commission has issued Amendment No. 20 to Facility Operating License No. NPF-10 for the San Onofre Nuclear Station, Unit 2, located in San Diego County, California.

This amendment is in response to your letter dated January 6, 1983. The amendment grants temporary exceptions to the San Onofre Unit 2 Technical Specifications to permit natural circulation tests to be performed as part of the startup testing program. A copy of the related safety evaluation supporting Amendment No. 20 to Facility Operating License No. NPF-10 is enclosed.

Sincerely,

Original signed by:
George W. Knighton

George W. Knighton, Chief
Licensing Branch NO. 3
Division of Licensing

Enclosures:

- 1. Amendment No. 20 to NPF-10
- 2. Safety Evaluation

cc w/enclosures:
See next page

8308150481 830725
PDR ADOCK 05000361
P PDR

OFFICE	DL:LB#3	DL:LB#3	DL:LB#3	OEID	DL:AD/I		
SURNAME	HRood:yt	SLee	G.Knighton	M. Holcomb	T. Novak		
DATE	7/11/83	7/11/83	7/25/83	7/27/83	7/25/83		

Mr. Robert Dietch
Vice President
Southern California Edison Company
2244 Walnut Grove Avenue
P. O. Box 800
Rosemead, California 91770

Mr. James C. Holcombe
Vice President - Power Supply
San Diego Gas & Electric Company
101 Ash Street
Post Office Box 1831
San Diego, California 92112

cc: Charles R. Kocher, Esq.
James A. Beoletto, Esq.
Southern California Edison Company
2244 Walnut Grove Avenue
P. O. Box 800
Rosemead, California 91770

Orrick, Herrington & Sutcliffe
ATTN: David R. Pigott, Esq.
600 Montgomery Street
San Francisco, California 94111

Mr. George Carvalho
City Manager
City of San Clemente
100 Avenida Presidio
San Clemente, California 92672

Alan R. Watts, Esq.
Rourke & Woodruff
Suite 1020
1055 North Main Street
Santa Ana, California 92701

Lawrence Q. Garcia, Esq.
California Public Utilities Commission
5066 State Building
San Francisco, California 94102

Mr. V. C. Hall
Combustion Engineering, Inc.
1000 Prospect Hill Road
Windsor, Connecticut 06095

Mr. S. McClusky
Bechtel Power Corporation
P. O. Box 60860, Terminal Annex
Los Angeles, California 90060

Mr. Dennis F. Kirsch
U.S. Nuclear Regulatory Comm. - Reg. V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596

Mr. Mark Medford
Southern California Edison Company
2244 Walnut Grove Avenue
P. O. Box 800
Rosemead, California 91770

Mr. Henry Peters
San Diego Gas & Electric Company
P. O. Box 1831
San Diego, California 92112

Ms. Lyn Harris Hicks
Advocate for GUARD
3908 Calle Ariana
San Clemente, California 92672

Richard J. Wharton, Esq.
University of San Diego School of Law
Environmental Law Clinic
San Diego, California 92110

Phyllis M. Gallagher, Esq.
Suite 222
1695 West Crescent Avenue
Anaheim, California 92701

Mr. A. S. Carstens
2071 Caminito Circulo Norte
Mt. La Jolla, California 92037

Charles E. McClung, Jr., Esq.
Attorney at Law
24012 Calle de la Plata/Suite 330
Laguna Hills, California 92653

Resident Inspector, San Onofre/NPS
c/o U.S. Nuclear Regulatory Commission
P. O. Box 4329
San Clemente, California 92672

Regional Administrator-Region V/NRC
1450 Maria Lane/Suite 210
Walnut Creek, California 94596

Mr. C. B. Brinkman
Combustion Engineering, Inc.
7910 Woodmont Avenue
Bethesda, Maryland 20814

Mr. C. B. Brinkman
Combustion Engineering, Inc.
7910 Woodmont Avenue
Bethesda, Maryland 20814

California Department of Health
ATTEN: Chief, Environmental Radiation
Control Unit
Radiological Health Section
714 P Street, Room 498
Sacramento, California 95814

Chairman, Board Supervisors
San Diego County
San Diego, California 92412

Mayor, City of San Clemente
San Clemente, California 92672

Director, Energy Facilities Siting Division
Energy Resources Conservation &
Development Commission
1111 Howe Avenue
Sacramento, California 95825

California State Library
Government Publications Section
Library and Courts Building
Sacramento, California 95841
ATTN: Ms Mary Schell

Mr. Joseph O. Ward, Chief
Radiological Health Branch
State Department of Health Services
714 P Street, Office Building #8
Sacramento, California 95814
(W/incoming and enclosure)

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. 20
License No. NPF-10

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment for the San Onofre Nuclear Generating Station, Unit 2 (the facility) filed by the Southern California Edison Company on behalf of itself and San Diego Gas and Electric Company, The City of Riverside and The City of Anaheim, California (licensees) dated January 6, 1983 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations as set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the 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 set forth in 10 CFR Chapter I;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public;
 - 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.

8308150485 830725
PDR ADDCK 05000361
P PDR

OFFICE ▶	.....	.....	.....	.....	.....	.....	.....
SURNAME ▶	.....	.....	.....	.....	.....	.....	.....
DATE ▶	.....	.....	.....	.....	.....	.....	.....

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. 20, are hereby incorporated in the license. SCE shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This license amendment becomes effective on the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:
George W. Knighton

George W. Knighton, Chief
Licensing Branch No. 3
Division of Licensing

Date of Issuance: JUL 25 1983

OFFICE	DL:LB#3	DL:LB#3	OELD	DL:LB#3			
SURNAME	HRood:vt	Jee	[Signature]	G. Knighton			
DATE	7/11/83	5/2/83	5/2/83	7/20/83			

7.0 SPECIAL TEST PROGRAM

7.1 For conducting the natural circulation test program* the following Technical Specifications are exempt:

<u>Technical Specifications</u>	<u>Test</u>	<u>Test</u>	<u>Test</u>
Section Description	B1	B2	B3
3.4.1.2 Reactor Coolant System(1)(2) - Hot Standby	X	X	X
3.4.1.3 Reactor Coolant System(1)(2)(3) - Hot Shutdown			X
3.7.1.3 Condensate Storage Tank	X	X	X

- NOTES: 1. No operations are permitted that would cause dilution of the Reactor Coolant System boron concentration.
2. Core outlet temperature is maintained at least 10°F below saturation temperature.
3. A Reactor Coolant pump shall not be started with one or more of the Reactor Coolant System cold leg temperatures less than or equal to 235°F unless the secondary water temperature of the steam generator is less than 100°F above each of the Reactor Coolant System cold leg temperatures.

* Natural Circulation Test Program, San Onofre Nuclear Generating Station Unit 2, Safety Evaluation, "CEN-201(S)", April 1982.

Notes:

1. Trip setpoint lowered to $< 9.1\%$ RATED THERMAL POWER, allowable value $\leq 10.4\%$ RATED THERMAL POWER
2. Trip setpoint raised to $< 100\%$ RATED THERMAL POWER, allowable value $\leq 100\%$ RATED THERMAL POWER
3. Trip setpoint lowered to $\geq 1,550$ psia
4. Trip setpoint lowered to ≥ 550 psia
5. Trip bypassed

ATTACHMENT TO LICENSE AMENDMENT NO. 20

FACILITY OPERATING LICENSE NO. NPF-10

DOCKET NO. 50-361

Replace the following page of the Appendix A Technical Specifications with the enclosed page. The revised page is identified by Amendment number and contains vertical lines indicating the area of change. Also to be replaced is the following overleaf page to the amendment page.

Amendment Page

7-1

Overleaf Page

7-2

OFFICE ▶	.....	.....	.....	.....	.....	.....	.....
SURNAME ▶	.....	.....	.....	.....	.....	.....	.....
DATE ▶	.....	.....	.....	.....	.....	.....	.....

SAFETY EVALUATION

AMENDMENT NO. 20 TO NPF-10

SAN ONOFRE NUCLEAR GENERATING STATION, UNIT 3

DOCKET NO. 50-361

Introduction

By letter dated January 6, 1983, the Southern California Edison Company (SCE or the licensee) requested an amendment to change the San Onofre Nuclear Generating Station, Unit 2, Technical Specifications to grant temporary exceptions to Technical Specifications 3.4.1.2, 3.4.1.3, and 3.7.1.3 to permit natural circulation tests to be conducted as part of the startup testing program. These exceptions will be granted by modifying Technical Specification 7.0, Special Test Program, to specifically permit the exceptions during natural circulation testing only.

Summary

In its submittals of April 15, 1982 and January 6, 1983 the licensee described the natural circulation tests which will be conducted by turning off all four reactor coolant pumps. This is not normally permitted by the facility Technical Specifications, but is necessary for the conduct of these tests. In their submittals the licensee evaluated the tests to investigate the probability and consequences of the accidents described in Section 15 of the FSAR, as well as the possibility of accidents of a new or different kind, and also evaluated the safety margins during the tests. In some instances, specific operator actions are necessary, during the conduct of the tests, to keep the potential accident probability or consequences or safety margins within the limits previously evaluated in Section 15 of the FSAR and approved in the staff's Safety Evaluation Report and its supplements (NUREG-0712). The licensee has included all such actions in the detailed test procedures that the plant operators will be required to follow during the tests. These operator actions are described in Section 3.0, Operational and Test Termination Criteria, of CEN-201 (3), "Natural Circulation Test Program," Supplement No. 1, submitted by the licensee on January 6, 1983.

The staff has concluded that relaxation of the requirements of Technical Specifications 3.4.1.2, 3.4.1.3, and 3.7.1.3 is acceptable because it will be accompanied by compensatory actions that maintain a commensurate level of safety to that provided by the Technical Specifications. Such compensatory measures include termination of the test and restoration of at least one reactor coolant loop to operation in the event of abnormal system parameters.

The details of the staff evaluation of each of the proposed changes is given below.

B308150486 B30725
PDR ADOCK 05000361
P PDR

OFFICE ▶	.....	.....	.....	.....	.....	.....	.....
SURNAME ▶	.....	.....	.....	.....	.....	.....	.....
DATE ▶	.....	.....	.....	.....	.....	.....	.....

Evaluation

(1) Technical Specification 3.4.1.2 - Reactor Coolant System: Hot Standby

This Technical Specification covers the reactor coolant loops and coolant circulation in hot standby and requires that at least one reactor coolant loop and its associated steam generator with at least one associated reactor coolant pump be in operation. The operation of one reactor coolant pump provides adequate flow to ensure quick mixing of added boron, prevent possible temperature stratification, prevent possible boron stratification, and produce gradual reactivity changes during boron concentration reductions in the reactor coolant system. Consequently, with no reactor coolant loops in operation while in hot standby, all activities involving a reduction in boron concentration are required by this Technical Specification to be suspended and immediate corrective action is required to return the required loop to operation.

However, during the performance of the "B" series of natural circulation tests, operation of both reactor coolant loops will be interrupted by intentionally removing power to all four reactor coolant pumps. In Test B1 and B2 the plant will be maintained in hot standby with offsite AC power removed, and in Test B3 the plant will be taken from hot standby to temperatures and pressures that permit the initiation of the shutdown cooling system under conditions that simulate a loss of offsite power. In both tests, however, no operations will be permitted that could cause a dilution in the reactor coolant system boron concentration and an adequate loop subcooled margin will be maintained at all times. Also, as a compensatory measure, the tests will be terminated if any of the critical parameters identified in the test procedure (i.e., hot and cold leg temperature, reactor coolant system subcooled margin, reactor coolant system pressure, and steam generator level) is exceeded.

Based on the above, the staff concludes that the proposed exception to Technical Specification 3.4.1.2 permitting the "B" series natural circulation tests to be conducted is acceptable.

(2) Technical Specification 3.4.1.3 - Reactor Coolant System: Hot Shutdown

This Technical Specification covers the reactor coolant loops and coolant circulation in hot shutdown and requires that at least one reactor coolant loop and its associated steam generator with at least one associated reactor coolant pump or shutdown cooling Train A or shutdown cooling Train B be in operation. The operation of at least one of the above systems provides adequate flow to ensure quick mixing of added boron, prevent possible temperature stratification, prevent possible boron stratification, and produce gradual reactivity changes during boron concentration reductions in the reactor coolant system. Consequently, with no reactor coolant loop or shutdown cooling train in operation while in hot shutdown, this Technical Specification requires that all activities involving a reduction in boron concentration be suspended and immediate corrective action be taken to return the required loop or train to operation.

OFFICE ▶	.....	.....	.....	.....	.....	.....	.....
SURNAME ▶	.....	.....	.....	.....	.....	.....	.....
DATE ▶	.....	.....	.....	.....	.....	.....	.....

However, during Natural Circulation Test B3, the plant will be taken from hot standby to temperatures and pressures that permit the initiation of the shutdown cooling system under conditions that simulate a loss of offsite power, i.e., with all four reactor coolant pumps secured. The shutdown cooling system will not be placed in operation. In this test, however, no operation will be permitted that could cause a dilution in the reactor coolant system boron concentration and an adequate loop subcooled margin will be maintained at all times. Also, as a compensatory measure, the tests will be terminated if any of the critical parameters identified in the test procedure (i.e., hot and cold leg temperature, reactor coolant system subcooled margin, reactor coolant system pressure, and steam generator level) is exceeded.

Based on the above, the staff concludes that the proposed exception to Technical Specification 3.4.1.3 permitting natural circulation test B3 to be conducted is acceptable.

(3) Technical Specification 3.7.1.3 - Plant Systems: Condensate Storage Tank

This Technical Specification covers the condensate storage tanks and requires that both tanks be operable, with a contained water volume of at least 123,000 gallons in T-121 and 280,000 gallons in T-120. (Note that 123,000 gallons is the required volume for tank T-121 corresponding to a maximum achieved power of 80%.) Operability is demonstrated by verifying that the contained water volume is within this limit once every twelve-hour period. The operability of the condensate storage tanks with the minimum water volume ensures that sufficient water is available to maintain the reactor coolant system at hot standby conditions for 24 hours with steam discharge to atmosphere concurrent with a total loss of offsite power.

During the performance of the "B" series of natural circulation tests, the auxiliary feedwater system will be used to feed both steam generators. As a result, the contained water volume in tank T-121 may fall below the required 123,000 gallon minimum. However, the decay heat level that was assumed when calculating this minimum volume is based upon a reactor trip following approximately two years of sustained power operation at 80% of rated thermal power. The actual decay heat level that will exist when Tests B1, B2 and B3 are performed will be considerably less than this assumed value. Therefore, operation with tank T-121 volume below 123,000 gallons for short periods of time during the "B" series of natural circulation tests will not impact plant performance since the margin of safety as defined in the basis for the condensate storage tank technical specification will not be reduced.

Based on the above, the staff concludes that the proposed exception to Technical Specification 3.7.1.3 permitting the "B" series natural circulation tests to be conducted is acceptable.

OFFICE	.....	.....	.....	.....	.....	.....	.....
SURNAME	.....	.....	.....	.....	.....	.....	.....
DATE	.....	.....	.....	.....	.....	.....	.....

Contact With State Official

By copy of a letter dated June 10, 1983 to the licensee, the NRC staff advised the Chief of the Radiological Health Branch, State Department of Health Services, State of California, of its proposed determination of no significant hazards consideration.

Also included in the transmittal package were the licensee's application for the amendment and the supporting documents. No comments were received.

Environmental Consideration

We have determined that this amendment does not authorize a change in effluent types or total amount nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that this amendment involves action which is insignificant from the standpoint of environmental impact and pursuant 10 CFR Section 51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

Based upon our evaluation of the proposed changes to the San Onofre, Unit 2 Technical Specifications, we have concluded that: there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public. We, therefore, conclude that the proposed changes are acceptable.

Dated: JUL 25 1983

AR
*See previous concurrence.

OFFICE	DL:LB#3	DL:LB#3	OELD *				
SURNAME	HRood/yt	GWknighton					
DATE	7/25/83	7/26/83	7/ /83				

Contact With State Official

By copy of a letter dated June 10, 1983 to the licensee, the NRC staff advised the Chief of the Radiological Health Branch, State Department of Health Services, State of California, of its proposed determination of no significant hazards consideration.

Also included in the transmittal package were the licensee's application for the amendment and the supporting documents. No comments were received.

Environmental Consideration

We have determined that this amendment does not authorize a change in effluent types or total amount nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that this amendment involves action which is insignificant from the standpoint of environmental impact and pursuant 10 CFR Section 51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

Conclusion

Based upon our evaluation of the proposed changes to the San Onofre, Unit 2 Technical Specifications, we have concluded that: ~~(1) because this amendment does not involve a significant increase in the probability or consequences of accidents previously considered, does not create the possibility of an accident of a type different from any evaluated previously, and does not involve a significant decrease in a safety margin, this amendment does not involve a significant safety hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public. We, therefore, conclude that the proposed changes are acceptable.~~

Dated:

*OK with change.
Before it is issued (signed)
check to see whether any
petition or comment received.
received. F6 (no comment received)
EHD J&J*

OFFICE	DL:LB#3	DL:LB#3	OE:LD				
SURNAME	HRood:ph	GWKnighton					
DATE	7/22/83	7/ /83	7/ /83				

JUL 25 1983

DISTRIBUTION

Document Control (50-361)

NRC PDR
L PDR
NSIC
PRC System

LB#3 Reading
HRood
JLee (12)
GWNighton
LChandler
DEisenhut/RPurple
HRDenton
TMNovak
JRutberg, OELD
AToalston, AIG
ELJordan, IE
JMTaylor, IE
LJHarmon, IE (2)
JSauder
WMiller
IDInitz
WJones, OA
TBarnhart (4)
BPCotter, ASLBP
ARosenthal, ASLAP
ACRS (16)
FPagano, IE