

Docket Nos. 50-361
and 50-362

September 5, 1991

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

Mr. Gary D. Cotton
Senior 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. 80703) AND UNIT NO. 3 (TAC NO. 80704)

The Commission has issued the enclosed Amendment No. 98 to Facility Operating License No. NPF-10 and Amendment No. 87 to Facility Operating License No. NPF-15 for San Onofre Nuclear Generating Station, Unit Nos. 2 and 3. These amendments consist of changes to the Technical Specifications (TS) in response to your application dated June 28, 1991, designated by you as PCN-353.

These amendments revise TS 3/4 5.2, "ECCS Subsystems - Tavg Greater Than or Equal to 350°F," and 3/4 6.3, "Containment Isolation Valves." These amendments add a surveillance requirement to TS 3/4 5.2 which would verify, every twelve hours, the position of the containment emergency sump isolation valves, and the emergency core cooling pump and containment spray pump mini-flow valves. Valve alignment clarification has been added to TS 3/4 6.3 for the containment emergency sump valves listed in TS Table 3.6-1 and addressed by the surveillance being added to 3/4 5.2. An action statement has been added to TS 3/4 5.2 to invoke TS 3/4 6.1.1 in the event containment integrity is breached.

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

Lawrence E. Kokajko, Project Manager
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

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Enclosures:

- 1. Amendment No. 98 to NPF-10
- 2. Amendment No. 87 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

September 5, 1991

Docket Nos. 50-361
and 50-362

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Senior Vice President
Southern California Edison Co.
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These amendments revise TS 3/4 5.2, "ECCS Subsystems - Tavg Greater Than or Equal to 350°F," and 3/4 6.3, "Containment Isolation Valves." These amendments add a surveillance requirement to TS 3/4 5.2 which would verify, every twelve hours, the position of the containment emergency sump isolation valves, and the emergency core cooling pump and containment spray pump mini-flow valves. Valve alignment clarification has been added to TS 3/4 6.3 for the containment emergency sump valves listed in TS Table 3.6-1 and addressed by the surveillance being added to 3/4 5.2. An action statement has been added to TS 3/4 5.2 to invoke TS 3/4 6.1.1 in the event containment integrity is breached.

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 black ink, appearing to read "L. S. Kokajko".

Lawrence E. Kokajko, Project Manager
Project Directorate V
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 98 to NPF-10
2. Amendment No. 87 to NPF-15
3. Safety Evaluation

cc w/enclosures:
See next page

Messrs. Ray and Cotton
Southern California Edison Company

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

cc:

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

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. 98
License No. NPF-10

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Southern California Edison Company, San Diego Gas and Electric Company, the City of Riverside, California, and the City of Anaheim, California (licensees) (the licensee) dated June 28, 1991, 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.

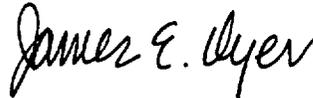
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. NPF-10 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 98, 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



James E. Dyer, 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: September 5, 1991

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 98 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

3/4 5-3
3/4 5-4
3/4 5-5
3/4 5-6
3/4 6-23

INSERT

3/4 5-3
3/4 5-4
3/4 5-5
3/4 5-6
3/4 6-23

EMERGENCY CORE COOLING SYSTEMS

3/4.5.2 ECCS SUBSYSTEMS - T_{avg} GREATER THAN OR EQUAL TO 350°F

LIMITING CONDITION FOR OPERATION

3.5.2 Two independent Emergency Core Cooling System (ECCS) subsystems shall be OPERABLE with each subsystem comprised of:

- a. One OPERABLE high-pressure safety injection pump,
- b. One OPERABLE low-pressure safety injection pump, and
- c. One OPERABLE charging pump capable of taking suction from either the boric acid makeup tank or the refueling water storage tank.
- d. An independent OPERABLE flow path capable of taking suction from the refueling water tank on a Safety Injection Actuation Signal and automatically transferring suction to the containment sump on a Recirculation Actuation Signal.

APPLICABILITY: MODES 1, 2 and 3*.

ACTION:

- a. With one ECCS subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- b. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected safety injection nozzle shall be provided in this Special Report whenever its value exceeds 0.70.
- c. With two Containment Emergency Sump (CES) isolation valves open and two Emergency Core Cooling System (ECCS) mini-flow valves open in the same train (CONTAINMENT INTEGRITY is not met), follow the ACTION requirements of Technical Specification 3.6.1.1

* With pressurizer pressure greater than or equal to 400 psia.

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS

4.5.2 Each ECCS subsystem shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying that the following valves are in the indicated positions with power to the valve operators removed:

<u>Valve Number</u>	<u>Valve Function</u>	<u>Valve Position</u>
a. HV9353	SDC Warmup	CLOSED
b. HV9359	SDC Warmup	CLOSED
c. HV8150	SDC(HX) Isolation	CLOSED
d. HV8151	SDC(HX) Isolation	CLOSED
e. HV8152	SDC(HX) Isolation	CLOSED
f. HV8153	SDC(HX) Isolation	CLOSED
g. HV0396	SDC Bypass Flow Control	CLOSED
h. HV8161	SDC(HX) Bypass Flow Isolation	OPEN
i. HV9420	Hot Leg Injection Isolation	CLOSED
j. HV9434	Hot Leg Injection Isolation	CLOSED
k. HV8160	SDC Bypass Flow Control	OPEN
l. HV8162	LPSI Miniflow Isolation	OPEN
m. HV8163	LPSI Miniflow Isolation	OPEN

- b. At least once per 12 hours by verifying that the following valves are in the positions listed below and power is available to the valve operators.

<u>Valve Number</u>	<u>Valve Function</u>	<u>Valve Position</u>
a. HV-9302	CES Isolation	CLOSED
b. HV-9303	CES Isolation	CLOSED
a. HV-9304	CES Isolation	CLOSED
b. HV-9305	CES Isolation	CLOSED
c. HV-9306	ECCS train Mini-flow	OPEN
d. HV-9307	ECCS train Mini-flow	OPEN
e. HV-9347	ECCS train Mini-flow	OPEN
f. HV-9348	ECCS train Mini-flow	OPEN

- c. At least once per 31 days by:

1. Verifying that the ECCS piping is full of water by venting the ECCS pump casings and accessible discharge piping high points, and
2. Verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position is in the correct position.

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- d. By a visual inspection which verifies that no loose debris (rags, trash, clothing, etc.) is present in the containment which could be transported to the containment sump and cause restriction of the pump suction during LOCA conditions. This visual inspection shall be performed:
 - 1. For all accessible areas of the containment prior to establishing CONTAINMENT INTEGRITY, and
 - 2. Of the areas affected within containment at the completion of containment entry when CONTAINMENT INTEGRITY is established.
- e. At least once per refueling interval by:
 - 1. Verifying automatic interlock action of the shutdown cooling system with the Reactor Coolant System by ensuring that when simulated RCS pressure is greater than or equal to 376 psia, the interlocks prevent opening the shutdown cooling system isolation valves.
 - 2. A visual inspection of the containment sump and verifying that the subsystem suction inlets are not restricted by debris and that the sump components (trash racks, screens, etc.) show no evidence of structural distress or abnormal corrosion.
- f. At least once per refueling interval, during shutdown, by:
 - 1. Verifying that each automatic valve in the flow path actuates to its correct position on SIAS and RAS test signals.
 - 2. Verifying that each of the following pumps start automatically upon receipt of a Safety Injection Actuation Test Signal:
 - a. High-Pressure Safety Injection pump.
 - b. Low-Pressure Safety Injection pump.
 - c. Charging pump.
 - 3. Verifying that on a Recirculation Actuation Test Signal, the containment sump isolation valves open; and that on a RAS test signal coincident with a high-high containment sump test signal, all the recirculation valves to the refueling water tank close.
- g. By verifying that each of the following pumps develops the indicated developed head and/or flow rate when tested pursuant to Specification 4.0.5:
 - 1. High-Pressure Safety Injection pumps developed head, at an indicated flow rate of 650 gpm, greater than or equal to 2093 feet for P017, 2132 feet for P018 and 2099 for P019 (see NOTE 1).

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. Low-Pressure Safety Injection pump developed head greater than or equal to 396 feet at miniflow.
3. Charging pump flow rate greater than or equal to 40 gpm.
- h. By performing a flow balance test, during shutdown, following completion of modifications to the ECCS subsystems that alter the subsystem flow characteristics and verifying the following flow rates:
 1. For High-Pressure Safety Injection pump cold leg injection with a single pump running:
 - a. The sum of the injection lines flow rates, excluding the highest flow rate, is greater than or equal to 657 gpm for P017 running, 656 gpm for P018 running and 661 gpm for P019 running, and
 - b. The total pump flow rate is greater than or equal to 882 gpm for P017 running, 894 gpm for P018 running and 901 gpm for P019 running.
 2. For a single High-Pressure Safety Injection pump hot/cold leg injection.
 - a. The sum of the cold leg injection flow rates is greater than or equal to 385 gpm, and
 - b. The hot leg injection flow rate is greater than or equal to 385 gpm.
 - c. The combined total hot/cold legs injection flow rate is greater than or equal to 896 gpm.
 3. For the Low-Pressure Safety Injection pump with a single pump running:
 - a. The flow through each injection leg shall be greater than or equal to 3000 gpm when tested individually and corrected to the same pump suction source and leg back pressure conditions. The difference between high and low flow legs shall be less than or equal to 100 gpm.
 - b. The total ECCS flow through 2 cold leg injection lines shall be greater than or equal to 4450 gpm when corrected for elevation head.

TABLE 3.6-1
CONTAINMENT ISOLATION VALVES (Continued)

<u>PENETRATION NUMBER</u>	<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>MAXIMUM ISOLATION TIME (SEC)</u>
D. OTHER*** (Cont.)			
41	HV-9333#	High pressure safety injection	NA
44	HV-4057#*	Steam generator secondary coolant sample	NA
48	8"-072-A-552#	Low pressure safety injection	NA
48	HV-9322#	Low pressure safety injection	NA
49	8"-073-A-552#	Low pressure safety injection	NA
49	HV-9325#	Low pressure safety injection	NA
50	8"-074-A-552#	Low pressure safety injection	NA
50	HV-9328#	Low pressure safety injection	NA
51	8"-075-A-552#	Low pressure safety injection	NA
51	HV-9331#	Low pressure safety injection	NA
52	8"-004-C-406	Containment spray inlet	NA
52	HV-9367	Containment spray inlet	NA
53	8"-006-C-406	Containment spray inlet	NA
53	HV-9368	Containment spray inlet	NA
54	HV-9304#@	Containment emergency sump recirculation	NA
54	HV-9302#@	Containment emergency sump recirculation	NA
55	HV-9305#@	Containment emergency sump recirculation	NA
55	HV-9303#@	Containment emergency sump recirculation	NA
56	HV-6366	Containment emergency A/C cooling water inlet	NA
57	HV-6372	Containment emergency A/C cooling water inlet	NA
58	HV-6368	Containment emergency A/C cooling water inlet	NA
59	HV-6370	Containment emergency A/C cooling water inlet	NA
60	HV-6369	Containment emergency A/C cooling water outlet	NA
61	HV-6371	Containment emergency A/C cooling water outlet	NA
62	HV-6367	Containment emergency A/C cooling water outlet	NA
63	HV-6373	Containment emergency A/C cooling water outlet	NA
67	3"-157-A-550	Hot leg injection	NA
67	HV-9434	Hot leg injection	NA
71	3"-158-A-550	Hot leg injection	NA
71	HV-9420	Hot leg injection	NA
73A	HV-0352C#	Containment pressure detectors	NA

* Manual valves may be opened on an intermittent basis under administrative control.

*** Valves secured in the ESFAS actuated position, unless otherwise annotated, are considered OPERABLE pursuant to this specification.

Not subject to Type C leakage tests.

@ These valves are surveilled for position and power available by Technical Specification 3/4 5.2



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

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. 87
License No. NPF-15

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Southern California Edison Company, San Diego Gas and Electric Company, the City of Riverside, California, and the City of Anaheim, California (licensees) (the licensee) dated June 28, 1991, 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.

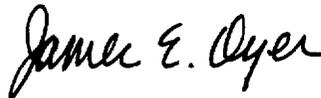
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C(2) of Facility Operating License No. NPF-15 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, as revised through Amendment No. 87, 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



James E. Dyer, 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: September 5, 1991

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 87 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

3/4 5-3
3/4 5-4
3/4 5-5
3/4 5-6
3/4 6-24

INSERT

3/4 5-3
3/4 5-4
3/4 5-5
3/4 5-6
3/4 6-24

EMERGENCY CORE COOLING SYSTEMS

3/4.5.2 ECCS SUBSYSTEMS - T_{avg} GREATER THAN OR EQUAL TO 350°F

LIMITING CONDITION FOR OPERATION

3.5.2 Two independent Emergency Core Cooling System (ECCS) subsystems shall be OPERABLE with each subsystem comprised of:

- a. One OPERABLE high-pressure safety injection pump,
- b. One OPERABLE low-pressure safety injection pump, and
- c. One OPERABLE charging pump capable of taking suction from either the boric acid makeup tank or the refueling water storage tank.
- d. An independent OPERABLE flow path capable of taking suction from the refueling water tank on a Safety Injection Actuation Signal and automatically transferring suction to the containment sump on a Recirculation Actuation Signal.

APPLICABILITY: MODES 1, 2 and 3*.

ACTION:

- a. With one ECCS subsystem inoperable, restore the inoperable subsystem to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours.
- b. In the event the ECCS is actuated and injects water into the Reactor Coolant System, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 90 days describing the circumstances of the actuation and the total accumulated actuation cycles to date. The current value of the usage factor for each affected safety injection nozzle shall be provided in this Special Report whenever its value exceeds 0.70.
- c. With two Containment Emergency Sump (CES) isolation valves open and two Emergency Core Cooling System (ECCS) mini-flow valves open in the same train (CONTAINMENT INTEGRITY is not met), follow the ACTION requirements of Technical Specification 3.6.1.1.

* With pressurizer pressure greater than or equal to 400 psia.

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS

4.5.2 Each ECCS subsystem shall be demonstrated OPERABLE:

- a. At least once per 12 hours by verifying that the following valves are in the indicated positions with power to the valve operators removed:

<u>Valve Number</u>	<u>Valve Function</u>	<u>Valve Position</u>
a. HV9353	SDC Warmup	CLOSED
b. HV9359	SDC Warmup	CLOSED
c. HV8150	SDC(HX) Isolation	CLOSED
d. HV8151	SDC(HX) Isolation	CLOSED
e. HV8152	SDC(HX) Isolation	CLOSED
f. HV8153	SDC(HX) Isolation	CLOSED
g. HV0396	SDC Bypass Flow Control	CLOSED
h. HV8161	SDC(HX) Bypass Flow Isolation	OPEN
i. Deleted		
j. Deleted		
k. HV9420	Hot Leg Injection Isolation	CLOSED
l. HV9434	Hot Leg Injection Isolation	CLOSED
m. HV8160	SDC Bypass Flow Control	OPEN
n. HV8162	LPSI Miniflow Isolation	OPEN
o. HV8163	LPSI Miniflow Isolation	OPEN

- b. At least once per 12 hours by verifying that the following valves are in the positions listed below and power is available to the valve operators.

<u>Valve Number</u>	<u>Valve Function</u>	<u>Valve Position</u>
a. HV-9302	CES Isolation	CLOSED
b. HV-9303	CES Isolation	CLOSED
a. HV-9304	CES Isolation	CLOSED
b. HV-9305	CES Isolation	CLOSED
c. HV-9306	ECCS train Mini-flow	OPEN
d. HV-9307	ECCS train Mini-flow	OPEN
e. HV-9347	ECCS train Mini-flow	OPEN
f. HV-9348	ECCS train Mini-flow	OPEN

- c. At least once per 31 days by:

1. Verifying that the ECCS piping is full of water by venting the ECCS pump casings and accessible discharge piping high points, and
2. Verifying that each valve (manual, power operated or automatic) in the flow path that is not locked, sealed, or otherwise secured in position is in the correct position.

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- d. By a visual inspection which verifies that no loose debris (rags, trash, clothing, etc.) is present in the containment which could be transported to the containment sump and cause restriction of the pump suction during LOCA conditions. This visual inspection shall be performed:
1. For all accessible areas of the containment prior to establishing CONTAINMENT INTEGRITY, and
 2. Of the areas affected within containment at the completion of containment entry when CONTAINMENT INTEGRITY is established.
- e. At least once per refueling interval by:
1. Verifying automatic interlock action of the shutdown cooling system with the Reactor Coolant System by ensuring that when simulated RCS pressure is greater than or equal to 376 psia, the interlocks prevent opening the shutdown cooling system isolation valves.
 2. A visual inspection of the containment sump and verifying that the subsystem suction inlets are not restricted by debris and that the sump components (trash racks, screens, etc.) show no evidence of structural distress or abnormal corrosion.
- f. At least once per refueling interval, during shutdown, by:
1. Verifying that each automatic valve in the flow path actuates to its correct position on SIAS and RAS test signals.
 2. Verifying that each of the following pumps start automatically upon receipt of a Safety Injection Actuation Test Signal:
 - a. High-Pressure Safety Injection pump.
 - b. Low-Pressure Safety Injection pump.
 - c. Charging pump.
 3. Verifying that on a Recirculation Actuation Test Signal, the containment sump isolation valves open; and that on a RAS test signal coincident with a high-high containment sump test signal, all the recirculation valves to the refueling water tank close.
- g. By verifying that each of the following pumps develops the indicated developed head and/or flow rate when tested pursuant to Specification 4.0.5:
1. High-Pressure Safety Injection pumps developed head, at an indicated flow rate of 650 gpm, greater than or equal to 2093 feet for P017, 2132 feet for P018 and 2099 for P019 (see NOTE 1).

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

2. Low-Pressure Safety Injection pump developed head greater than or equal to 396 feet at miniflow.
 3. Charging pump flow rate greater than or equal to 40 gpm.
- h. By performing a flow balance test, during shutdown, following completion of modifications to the ECCS subsystems that alter the subsystem flow characteristics and verifying the following flow rates:
1. For High-Pressure Safety Injection pump cold leg injection with a single pump running:
 - a. The sum of the injection lines flow rates, excluding the highest flow rate, is greater than or equal to 657 gpm for P017 running, 656 gpm for P018 running and 661 gpm for P019 running, and
 - b. The total pump flow rate is greater than or equal to 882 gpm for P017 running, 894 gpm for P018 running and 901 gpm for P019 running.
 2. For a single High-Pressure Safety Injection pump hot/cold leg injection.
 - a. The sum of the cold leg injection flow rates is greater than or equal to 385 gpm, and
 - b. The hot leg injection flow rate is greater than or equal to 385 gpm.
 - c. The combined total hot/cold legs injection flow rate is greater than or equal to 896 gpm.
 3. For the Low-Pressure Safety Injection pump with a single pump running:
 - a. The flow through each injection leg shall be greater than or equal to 3000 gpm when tested individually and corrected to the same pump suction source and leg back pressure conditions. The difference between high and low flow legs shall be less than or equal to 100 gpm.
 - b. The total ECCS flow through 2 cold leg injection lines shall be greater than or equal to 4450 gpm when corrected for elevation head.

TABLE 3.6-1 (Continued)
CONTAINMENT ISOLATION VALVES

<u>PENETRATION NUMBER</u>	<u>VALVE NUMBER</u>	<u>FUNCTION</u>	<u>MAXIMUM ISOLATION TIME (SEC)</u>
D. OTHER*** (Cont.)			
41	HV-9333#	High pressure safety injection	NA
44	HV-4057#*	Steam generator secondary coolant sample	NA
48	8"-072-A-552#	Low pressure safety injection	NA
48	HV-9322#	Low pressure safety injection	NA
49	8"-073-A-552#	Low pressure safety injection	NA
49	HV-9325#	Low pressure safety injection	NA
50	8"-074-A-552#	Low pressure safety injection	NA
50	HV-9328#	Low pressure safety injection	NA
51	8"-075-A-552#	Low pressure safety injection	NA
51	HV-9331#	Low pressure safety injection	NA
52	8"-004-C-406	Containment spray inlet	NA
52	HV-9367	Containment spray inlet	NA
53	8"-006-C-406	Containment spray inlet	NA
53	HV-9368	Containment spray inlet	NA
54	HV-9304#@	Containment emergency sump recirculation	NA
54	HV-9302#@	Containment emergency sump recirculation	NA
55	HV-9305#@	Containment emergency sump recirculation	NA
55	HV-9303#@	Containment emergency sump recirculation	NA
56	HV-6366	Containment emergency A/C cooling water inlet	NA
57	HV-6372	Containment emergency A/C cooling water inlet	NA
58	HV-6368	Containment emergency A/C cooling water inlet	NA
59	HV-6370	Containment emergency A/C cooling water inlet	NA
60	HV-6369	Containment emergency A/C cooling water inlet	NA
61	HV-6371	Containment emergency A/C cooling water outlet	NA
62	HV-6367	Containment emergency A/C cooling water outlet	NA
63	HV-6373	Containment emergency A/C cooling water outlet	NA
67	3"-157-A-550	Hot leg injection	NA
67	HV-9434	Hot leg injection	NA
71	3"-158-A-550	Hot leg injection	NA
71	HV-9420	Hot leg injection	NA
73A	HV-0352C#	Containment pressure detectors	NA

* Manual valves may be opened on an intermittent basis under administrative control.

*** Valves secured in the ESFAS actuated position, unless otherwise annotated, are considered OPERABLE pursuant to this specification.

Not subject to Type C leakage tests.

@ These valves are surveilled for position and power available by Technical Specification 3/4 5.2.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 98 TO FACILITY OPERATING LICENSE NO. NPF-10
AND AMENDMENT NO. 87 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, UNIT NOS. 2 AND 3

DOCKET NOS. 50-361 AND 50-362

1.0 INTRODUCTION

By letter dated June 28, 1991, Southern California Edison Company, et al. (the licensee) requested a change to the Technical Specifications (TS) for Facility Operating License Nos. NPF-10 and NPR-15 that authorize operation of San Onofre Nuclear Generating Station, Unit Nos. 2 and 3 in San Diego County, California. The licensee requested that TS 3/4 5.2, "ECCS Subsystems - Tavg Greater Than or Equal to 350°F," and 3/4 6.3, "Containment Isolation Valves" be revised. These amendment requests would add a surveillance requirement to TS 3/4 5.2 which would verify, every twelve hours, the position of the containment emergency sump isolation valves, and the emergency core cooling pump and containment spray pump mini-flow valves. Valve alignment clarification would be added to TS 3/4 6.3 for the containment emergency sump valves listed in TS Table 3.6-1 and addressed by the surveillance being added to 3/4 5.2. An action statement is proposed to TS 3/4 5.2 to invoke TS 3/4 6.1.1 in the event containment integrity is breached.

2.0 EVALUATION

These proposed TS amendments are the result of a commitment made within Licensee Event Report 90-010 regarding the misalignment of San Onofre 3 ECCS motor operated valve 3HV-9302, for which the licensee received an NRC Notice of Violation (severity level III). One of the corrective actions was for the TS to govern the position and surveillance requirements for the containment emergency sump isolation valves, and the emergency core cooling pump and containment spray pump mini-flow valves.

Though station operating procedures implement the proposed TS controls noted above, the licensee determined that additional TS requirements were needed to

prevent the recurrence of the containment emergency sump valve misalignment. By placing the surveillance criteria and actions in the TS document, the licensee will establish enforceable requirements for the containment emergency sump isolation valves, and the emergency core cooling pump and containment spray pump mini-flow valves. These TS requirements will trigger additional administrative controls that will preclude misalignment of the containment emergency sump valves.

These TS changes are administrative in nature in that new and additional requirements are proposed to the TS, and are currently implemented by station operating procedures. These TS changes do not affect the operation or design of the facility, but do reflect current facility practice with regard to plant operation and design. The margin of safety is not affected by these proposed TS changes. Therefore, based upon the above information, the staff finds that proposed changes to the Technical Specifications, as outlined in the licensee's letter dated June 28, 1991, to be acceptable.

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 or a change to a surveillance requirement. 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 (56 FR 33961). 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: Lawrence E. Kokajko

Date: September 5, 1991