UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Application of SOUTHERN CALIFORNIA EDISON COMPANY, ET AL. for a Class 103 License to Acquire, Possess, and Use a Utilization Facility Part of Unit No. 2 of the San Onofre Nuclear Generating Station	)))))	Docket No. 50-361 Amendment Application No. 188

SOUTHERN CALIFORNIA EDISON COMPANY, ET AL. pursuant to 10 CFR 50.90, hereby submit Amendment Application No. 188.

This amendment application consists of Proposed Change Number (PCN) NPF-10-495 to Facility Operating License No. NPF-10. PCN NPF-10-495 is a request to revise San Onofre Unit 2 Technical Specification 3.5.2, "ECCS - Operating" to delete the charging pump flow requirement, Technical Specification 3.1.9 - "Boration Systems - Operating" to add a charging pump operability requirement, Technical Specification 3.7.1 - "Main Steam Safety Valves" to increase the Main Steam Safety Valve tolerance, and Technical Specification 5.1.7.5 - "Core Operating Limits Report" to identify applicable core operating limit analytical methods.

Subscribed on this 8th day of June, 1999

Respectfully submitted,
SOUTHERN CALIFORNIA EDISON COMPANY

By: Dwight E. Nunn
Dwight E. Nunn
Vice President

State of California
County of San Diego

On 6/8/99 before me, Mariane Sanchez, personally appeared DWIGHT E. NUNN personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature Mariane Sanchez

MARIANE SANCHEZ
Commission #1196482
Notary Public - California
San Diego County
My Comm. Expires Oct 14, 2002

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Application of SOUTHERN CALIFORNIA EDISON COMPANY, ET AL. for a Class 103 License to Acquire, Possess, and Use a Utilization Facility Part of Unit No. 3 of the San Onofre Nuclear Generating Station	)))))	Docket No. 50-362 Amendment Application No. 173

SOUTHERN CALIFORNIA EDISON COMPANY, ET AL. pursuant to 10 CFR 50.90, hereby submit Amendment Application No. 173.

This amendment application consists of Proposed Change Number (PCN) NPF-15-495 to Facility Operating License No. NPF-15. PCN NPF-15-495 is a request to revise San Onofre Unit 3 Technical Specification 3.5.2, "ECCS - Operating" to delete the charging pump flow requirernent, Technical Specification 3.1.9 - "Boration Systems - Operating" to add a charging pump operability requirement, Technical Specification 3.7.1 - "Main Steam Safety Valves" to increase the Main Steam Safety Valve tolerance, and Technical Specification 5.1.7.5 - "Core Operating Limits Report" to identify applicable core operating limit analytical methods.

Subscribed on this 8th day of June, 1999

Respectfully submitted,
SOUTHERN CALIFORNIA EDISON COMPANY

By: Dwight E. Nunn

Dwight E. Nunn
Vice President

State of California
County of San Diego

On 6/8/99 before me, Mariane Sanchez, personally appeared Dwight E. Nunn personally known to me to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Signature Mariane Sanchez

MARIANE SANCHEZ
Commission # 1196482
Notary Public - California
San Diego County
My Comm. Expires Oct 14, 2002

ENCLOSURE
DESCRIPTION AND SAFETY ANALYSIS
OF PROPOSED CHANGE NPF-10/15-495

DESCRIPTION, NO SIGNIFICANT HAZARDS CONSIDERATION , AND ENVIRONMENTAL CONSIDERATION FOR PROPOSED CHANGE NPF-10/15-485

This is a request to revise Technical Specification (TS) change to revise TS 3.5.2, "Emergency Core Cooling System (ECCS) - Operating," 3.1.9, "Boration Systems - Operating," 3.7.1, "Main Steam Safety Valves," and 5.7.1.5, "Core Operating Limits Report (COLR)," for San Onofre Units 2 and 3.

EXISTING TECHNICAL SPECIFICATIONS

Unit 2: See Attachment A
Unit 3: See Attachment B

PROPOSED TECHNICAL SPECIFICATIONS (with changes - strike out for deletions and highlight for additions)

Unit 2: See Attachment C
Unit 3: See Attachment D

PROPOSED TECHNICAL SPECIFICATION (changes incorporated)

Unit 2: See Attachment E
Unit 3: See Attachment F

PROPOSED BASES CHANGES (for information only - strike out for deletions and highlight for additions)

Unit 2: See Attachment G
Unit 3: See Attachment H

PROPOSED UPDATED FINAL SAFETY ANALYSIS REPORT (UFSAR) CHANGES (for information only - strike out for deletions and highlight for additions)

Chapter 6: See Attachment I
Chapter 15: See Attachment J

DESCRIPTION OF CHANGE

This proposed change is a request to revise the following:

- Surveillance requirement (SR) 3.5.2.6 ECCS-Operating SURVEILLANCE REQUIREMENTS

  Surveillance Requirement (SR) 3.5.2.6 requires that each charging pump develops a flow of greater than or equal to 40 gpm.

  SR 3.5.2.6 is requested to be deleted.

  Deletion of SR 3.5.2.6 results in deleting the charging system from the scope of Technical Specification (TS) 3.5.2, "Emergency Core Cooling System (ECCS) - Operating." A new Small Break Loss Of Coolant Accident (SBLOCA) ECCS evaluation, which did not credit charging flow, provides the basis to delete the existing requirement for San Onofre Units 2 and 3 to credit charging pump flow for ECCS. PCN 495 includes for information only the corresponding proposed changes to the Bases for Technical Specification 3.5.2 "ECCS - Operating" (see Attachments G and H). The TS Bases are to be revised to delete the statements that the charging system is a part of the ECCS, and to update the text describing the Small Break Loss Of Coolant Accident (SBLOCA) analysis. Charging pump operability for emergency boration is being assured by the proposed addition of TS Surveillance SR 3.1.9.5.

- SR 3.1.9.5 REACTIVITY CONTROL SYSTEMS

  SR 3.1.9.5 is requested to be added to require that each charging pump be verified operable in accordance with the Inservice Testing Program to ensure that charging pump operability is maintained for emergency boration requirements.

- SR 3.7.1 PLANT SYSTEMS Main Steam Safety Valves (MSSVs)

  SR Table 3.7.1-2-2 Main Steam Safety Valves (Lift Settings) includes a footnote, "** Valves 2PSV-8401 and 2PSV-8410 have an as-found lift setting of 1085 psig with a tolerance of +1%/-3%)."

  Approval is requested to revise TS 3.7.1 - "Main Steam Safety Valves" Table 3.7.1-2 "Main Steam Safety Valves (Lift Settings)" to delete footnote " ** ."

Deletion of the footnote results in changing the as-found tolerance of Main Steam Safety Valves (MSSVs) 2(3)-PSV-8401 and 2(3)-PSV-8410 from +1%/-3% to +2%/-3% of the lift setting. The SBLOCA reanalysis supports an as-found lift tolerance of +2%/-3% on 2(3)-PSV-8401 and 2(3)-PSV-8410.

- TS 5.7.1 ADMINISTRATIVE CONTROLS - Routine Reports

  TS 5.7.1.5.b, "Core Operating Limits Report (COLR)" describes the analytical methods used to determine the core operating limits by referencing previously NRC reviewed and approved analytical method documents.

  Approval is requested for an administrative change to TS 5.7.1.5.b to reference the ABB Combustion Engineering (ABB-CE) Supplement 2 Model (S2M) SBLOCA evaluation model.

Also included with PCN-495 for information are:

- Proposed changes to the Bases of TS 3.5.2 - "ECCS - Operating" to delete all references to the charging system being a part of the ECCS.

- Proposed changes to the Bases of TS 3.1.9 - "Boration Systems - Operating" to discuss the new SR 3.1.9.5.

- Proposed changes to the Updated Final Safety Analysis Report (UFSAR) (Reference 1) Sections 6.3.3, "ECCS Small Break Analysis" and 15.6.3.3.3.2, "Small Break LOCA."

DISCUSSION

A. Background

Surveillance Requirement (SR) 3.5.2.6 (page 3.5.6 of Attachment A) requires the charging system to be capable of injecting at least 40 gpm to ensure that, in the event of a Small Break Loss Of Coolant Accident (SBLOCA), the 10 CFR 50.46 ECCS acceptance criteria (Reference 2) are met. This requirement exists because the existing SBLOCA analyses credited the charging system to provide flow to supplement the High Pressure Safety Injection (HPSI) system.

Technical Specification Table 3.7.1-2 specifies all Main Steam Safety Valves (MSSVs) other than 2(3)-PSV-8401 and 2(3)-PSV-8410 have an as-found tolerance of +2%/-3% of the lift setting. As discussed in Amendments 114 (Unit 2) and 103 (Unit 3), the as-found tolerance on 2(3)-PSV-8401 and 2(3)-PSV-8410 was specified to be +1%/-3% because the SBLOCA event was not reanalyzed to support changing the tolerance on these valves to +2%/-3%. The current SBLOCA reanalysis supports an as-found lift tolerance of +2%/-3%

The current SBLOCA reanalysis supports an as-found lift tolerance of +2%/-3% on 2(3)-PSV-8401 and 2(3)-PSV-8410. Therefore, these amendment requests propose removal of footnote " ** " to TS Table 3.7.1-2, which imposes the +1%/-3% as-found tolerance on 2(3)-PSV-8401 and 2(3)-PSV-8410.

B. Analyses

A new SBLOCA ECCS evaluation, which did not credit charging flow, was performed with a MSSV tolerance of +2%/-3% on the first opening MSSVs (2(3)-PSV-8401 and 2(3)-PSV-8410). This evaluation was done with the Supplement 2 version (referred to as the S2M or Supplement 2 Model) of ABB Combustion Engineering's (ABB-CE's) SBLOCA evaluation model (Reference 3). NRC approval of the S2M for use in licensing applications (including being referenced in plant technical specifications and core operating limits reports) of Combustion Engineering design pressurized water reactors is in Reference 4. The previous San Onofre Units 2 and 3 SBLOCA ECCS performance analysis used the Supplement 1 version of ABB-CE's SBLOCA evaluation model (Reference 5). The primary difference between the two versions is the introduction of a radiation-to-steam model in the hot rod heatup analysis computer code, PARCH (References 14-16 and Reference 3). Improvements were also made to the PARCH model for convection heat transfer to steam and to the coupling between the fuel rod and coolant channel models.

In the ABB-CE SBLOCA evaluation model, the CEFLASH-4AS computer code (References 6-8) is used to perform the hydraulic analysis of the Reactor Coolant System (RCS) until the time the Safety Injection Tanks (SITs) begin to inject. After injection from the SITs begins, the COMPERC-II computer code (Reference 9) is used in conjunction with CEFLASH-4AS to perform the hydraulic analysis. The hot rod cladding temperature and maximum cladding oxidation are calculated by the STRIKIN-II computer code (References 10-13) during the initial period of forced convection heat transfer and by the PARCH computer code during the subsequent period of pool boiling heat transfer. Core-wide cladding oxidation is conservatively calculated as the rod average cladding oxidation of the hot rod. The initial steady state fuel rod conditions used in the analysis are determined using the FATES3B computer code (References 17-19).

Four reactor coolant pump discharge leg breaks, ranging in size from 0.01 ft^2 to 0.06 ft^2, were analyzed. The reactor coolant pump discharge leg was previously determined to be the limiting break location (Reference 20) because it maximizes the amount of spillage from the safety injection system.

The consequences of a given SBLOCA event are reduced when that event is analyzed with the new S2M SBLOCA evaluation model. The initial conditions and parameters are as shown in UFSAR Table 15.6-18 of Attachment J. The margin from the new SBLOCA evaluation model is used to:

- Eliminate credit for charging flow to supplement the ECCS;

- Reduce the credited High Pressure Safety Injection (HPSI) flow rate as shown in Table 6.3-5 of Attachment I (no change to the Technical Specification SR 3.5.2.5 HPSI pump performance requirement is being requested at this time);

- Incorporate an allowable diesel generator start time of 15 seconds (no change to the Technical Specification SR 3.8.1.7 diesel generator start time requirement is being requested at this time); and

- Increase the allowable number of plugged or repaired steam generator tubes from 1000 to 2000 per steam generator.

The LOCA break size range of 0.01 ft^2 to 0.06 ft^2 encompasses the break sizes for which hot rod cladding heatup is terminated solely by injection from a HPSI pump. It is within this range that the limiting SBLOCA resides. Break sizes outside this range are either too small to result in any core uncovery or are sufficiently large that injection from the Safety Injection Tanks (SITs) recovers the core and terminates cladding heatup before the cladding temperature approaches the Peak Cladding Temperature (PCT) calculated for the limiting SBLOCA.

Results of the SBLOCA reanalysis show that all 10 CFR 50.46 ECCS acceptance criteria are met with an as-found tolerance of +2%/-3% on MSSVs 2(3)-PSV-8401 and 2(3)-PSV-8410, without crediting charging flow. The PCT calculated by the reanalysis was 1884°F, which is within the acceptance criteria limit of 2200°F.

To ensure that the charging pumps remain capable of performing their boration requirements it is proposed that SR 3.1.9.5 be added to TS 3.1.9 - "Boration Systems - Operating." This SR is to require that the charging pumps be tested in accordance with the Inservice Testing Program.

C. Impact of Change on Plant Operation

This proposed change will remove the Technical Specification ECCS requirements from the charging system. However, the charging system will still be controlled by the proposed requirements contained in Technical Specifications 3.1.9 ("Boration Systems - Operating").

No physical changes to the plant, or the way it is operated, are being made. The charging system will still initiate on a Safety Injection Actuation Signal (SIAS).

MSSVs 2(3)-PSV-8401 and 2(3)-PSV-8410 will continue to be tested in accordance with TS 3.7.1. The as-left setpoint tolerance of ±1% will remain unchanged. This proposed change is consistent with that previously made to the other sixteen MSSVs in each unit by Amendments 114/Unit 2 and 103/Unit 3.

D. Core Operating Limits Report (COLR)

As a result of the performance of the new SBLOCA analysis, references to the ABB-CE S2M SBLOCA evaluation model, and the NRC approval of the model, will be included in the COLR. References 3 and 4 will be included in TS Section 5.7.1.5.

NO SIGNIFICANT HAZARDS CONSIDERATION

This proposed change is a request to revise the following:

- Delete Emergency Core Cooling System (ECCS) charging flow Surveillance Requirement (SR) 3.5.2.6 from the Technical Specifications (TS), based on a new Small Break Loss of Coolant Accident (SBLOCA) evaluation.

- Add SR 3.1.9.5 to the Reactivity Control Systems TS to verify that each charging pump is operable for boration based on the Inservice Testing Program.

- Increase the TS 3.7.1 "Main Steam Safety Valves (MSSVs)" maximum as-found lift pressure positive tolerance of pressure safety valve (PSV)-8401 and PSV-8410 from +1% to +2% of the lift setting, based on a new SBLOCA evaluation.

- Revise TS 5.7.1.5.b "Core Operating Limits Report (COLR)" to list the ABB Combustion Engineering (ABB-CE) Supplement 2 Model (S2M) SBLOCA evaluation model as an acceptable method for determining linear heat rate.

The Commission has provided standards for determining whether a significant hazards consideration exists as stated in 10 CFR 50.92. A proposed amendment to an operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with a proposed amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety. A discussion of these standards as they relate to this amendment request follows:

1) Involve a significant increase in the probability or consequences of any accident previously evaluated?

Response: No

The new Small Break Loss Of Coolant Accident (SBLOCA) evaluation model (ABB Combustion Engineering (ABB-CE) S2M SBLOCA evaluation model, CENPD 137 Supplement 2-P-A, "Calculative Methods of the ABB-CE Small Break LOCA Evaluation Model," dated April 1998) more accurately models the heat transfer mechanisms that occur during a SBLOCA. As a result of this modeling improvement, there is no longer a need to credit charging flow during a SBLOCA. The reanalysis, with an as-found tolerance of +2%/-3% of the lift

setting on Main Steam Safety Valves (MSSVs) 2(3)-PSV-8401 and 2(3)-PSV-8410 in Table 3.7.1-2, determined that the peak cladding temperature (PCT) that occurs in a SBLOCA is within the acceptance criteria limit of 2200 F specified in 10CFR50.46.

This proposed change removes the charging pump Emergency Core Cooling System (ECCS) surveillance requirement from the Technical Specifications (TS) which effectively removes the charging system from the ECCS. This is based on the SBLOCA reanalysis using the new ABB-CE S2M SBLOCA evaluation model. The reanalysis using the new model did not credit charging system flow to the reactor coolant system.

Because this proposed change to remove the charging pump ECCS flow surveillance requirement is based on a reanalysis of the SBLOCA rather than physical changes to the plant or the way it is operated, the probability of the SBLOCA is not affected. The results of the reanalysis demonstrate the consequences of the SBLOCA without charging flow do not exceed the consequences of the limiting LOCA. This is based on the fact that the SBLOCA

PCT does not exceed the limiting large break LOCA PCT.

The addition of Surveillance Requirement (SR) 3.1.9.5 to require the charging pump to be tested in accordance with the Inservice Testing (IST) program will ensure that the charging pumps remain capable of performing their emergency boration requirements.

Use of the NRC approved ABB-CE S2M SBLOCA analysis methodology identified in TS 5.7.1.5 for calculating the core operating limits further assures that there is no significant increase in the probability or consequences of any accident.

Therefore, the probability or consequences of any accident previously evaluated are not increased.

2) **Create the possibility of a new or different kind of accident from any previously evaluated?**

Response: No

This change does not involve a physical change to the plant, or a change to the way the plant is operated. The as-left tolerance of ±1% on MSSVs 2(3)-PSV-8401 and 2(3)-PSV-8410 in Table 3.7.1-2 is not being changed. The charging system will still be verified capable of meeting its emergency boration requirements.

Use of the NRC approved ABB-CE S2M SBLOCA analysis methodology identified in TS 5.7.1.5 for calculating the core operating limits further assures that there is no increase in the possibility of a new or different kind of accident from any previously evaluated. Therefore, the possibility of a new or different kind of accident from any previously evaluated is not created.

3) **Involve a significant reduction in a margin of safety?**

Response: No

This proposed change to remove the ECCS surveillance requirement for the charging pumps, and increase the as-found tolerance on MSSVs 2(3)-PSV-8401 and 2(3)-PSV-8410, is based on a SBLOCA reanalysis using the new ABB-CE S2M SBLOCA evaluation model. The NRC Safety Evaluation for the ABB-CE S2M evaluation model determined that the new evaluation model contains sufficient conservatism such that an adequate margin of safety exists when the S2M evaluation model is used. The results of the SBLOCA reanalysis are within the acceptance criteria specified in 10 CFR 50.46.

Testing of the charging pumps per the Inservice Testing Program, combined with the existing Technical Specification 3.1.9 - "Boration System - Operating" surveillance requirements ensure that the emergency boration requirements remain met without any reduction in a margin of safety.

Use of the NRC approved S2M ABB-CE SBLOCA analysis methodology identified in TS 5.7.1.5 for calculating the core operating limits further assures that there is no significant reduction in any margin of safety.

Therefore, a significant reduction in margin of safety is not involved.

Based on the responses to these three criterion, Southern California Edison (SCE) has concluded that the proposed amendments involve no significant hazards consideration.

ENVIRONMENTAL CONSIDERATION

SCE has determined that the proposed amendments involve no changes in the amount or type of effluent that may be released offsite, and result in no increase in individual or cumulative occupational radiation exposure. As described above, the proposed TS amendments involve no significant hazards consideration and, as such, meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9).

REFERENCES

1. San Onofre Nuclear Generating Station Updated Final Safety Analysis Report, Revision 14.

2. Code of Federal Regulations, Title 10, Part 50, Section 50.46, "Acceptance Criteria for Emergency Core Cooling Systems for Light Water Nuclear Power Reactors".

3. CENPD-137, Supplement 2-P-A, "Calculative Methods for the ABB-CE Small Break LOCA Evaluation Model," April 1998.

4. Letter, T. H. Essig (NRC) to I. C. Rickard (ABB), "Acceptance for Referencing of the Topical Report CENPD-137(P), Supplement 2, 'Calculative Methods for the C-E Small Break LOCA Evaluation Model' (TAC M95687)," December 16, 1997.

5. CENPD-137, Supplement 1-P, "Calculative Methods for the C-E Small Break LOCA Evaluation Model," January 1977.

6. CENPD-133P, "CEFLASH-4A, A FORTRAN-IV Digital Computer Program for Reactor Blowdown Analysis," August 1974.

7. CENPD-133P, Supplement 1, "CEFLASH-4AS, A Computer Program for the Reactor Blowdown Analysis of the Small Break Loss of Coolant Accident," August 1974.

8. CENPD-133, Supplement 3-P, "CEFLASH-4AS, A Computer Program for the Reactor Blowdown Analysis of the Small Break Loss of Coolant Accident," January 1977.

9. CENPD-134P, "COMPERC-II, A Program for Emergency Refill-Reflood of the Core," August 1974.

10. CENPD-135P, "STRIKIN-II, A Cylindrical Geometry Fuel Rod Heat Transfer Program," August 1974.

11. CENPD-135P, Supplement 2, "STRIKIN-II, A Cylindrical Geometry Fuel Rod Heat Transfer Program (Modifications)," February 1975.

12. CENPD-135, Supplement 4-P, "STRIKIN-II, A Cylindrical Geometry Fuel Rod Heat Transfer Program," August 1976.

13. CENPD-135-P, Supplement 5, "STRIKIN-II, A Cylindrical Geometry Fuel Rod Heat Transfer Program," April 1977.

14. CENPD-138P, "PARCH, A FORTRAN-IV Digital Program to Evaluate Pool Boiling, Axial Rod and Coolant Heatup," August 1974.

15. CENPD-138P, Supplement 1, "PARCH, A FORTRAN-IV Digital Program to Evaluate Pool Boiling, Axial Rod and Coolant Heatup (Modifications)," February 1975.

16. CENPD-138, Supplement 2-P, "PARCH, A FORTRAN-IV Digital Program to Evaluate Pool Boiling, Axial Rod and Coolant Heatup," January 1977.

17. CENPD-139-P-A, "C-E Fuel Evaluation Model," July 1974.

18. CEN-161(B)-P-A, "Improvements to Fuel Evaluation Model," August 1989.

19. CEN-161(B)-P, Supplement 1-P-A, "Improvements to Fuel Evaluation Model," January 1992.

20. CENPD-137P, "Calculative Methods for the C-E Small Break LOCA Evaluation Model," August 1974.

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Attachment A

EXISTING TECHNICAL SPECIFICATIONS

San Onofre Unit 2

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.9.1	Verify the boron concentration in the BAMU tank(s) is within limits.	7 days
SR 3.1.9.2	Verify the volume of borated water contained in the BAMU tank(s) is within limits.	7 days
SR 3.1.9.3	Verify that each flow path is operable and that each valve (manual, power operated or automatic, that is not locked, sealed, or otherwise secured) in the above required flow paths is in its correct position.	31 days
SR 3.1.9.4	Verify that each automatic valve in the above required flow paths actuates to its correct position on an SIAS test signal.	24 months

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.5.2.4	Verify ECCS piping is full of water.	31 days
SR 3.5.2.5	Verify the following ECCS pumps develop the indicated developed head and/or flow rate.	In accordance with the Inservice Testing Program

Pump	Full Flow GPM	Full Flow Head (Ft)	Miniflow Head(Ft)
HPSI-P017	650	≥ 2142	-
HPSI-P018	650	≥ 2101	-
HPSI-P019	650	≥ 2103	-
LPSI-P015	-	-	≥ 406.1
LPSI-P016	-	-	≥ 406.1

SR 3.5.2.6	Verify each charging pump develops a flow of ≥ 40 gpm.	In accordance with the Inservice Testing Program
SR 3.5.2.7	Verify each ECCS automatic valve in the flow path actuates to the correct position on an actual or simulated actuation signal.	24 months
SR 3.5.2.8	Verify each ECCS pump starts automatically on an actual or simulated actuation signal.	24 months
SR 3.5.2.9	Verify each LPSI pump stops on an actual or simulated actuation signal.	24 months

(continued)

Table 3.7.1-2 (page 1 of 1)
Main Steam Safety Valves (Lift Settings)

VALVE NUMBER		LIFT SETTING*
Steam Generator #1	Steam Generator #2	(psig)
2PSV-8401	2PSV-8410	1085**
2PSV-8402	2PSV-8411	1092
2PSV-8403	2PSV-8412	1099
2PSV-8404	2PSV-8413	1106
2PSV-8405	2PSV-8414	1113
2PSV-8406	2PSV-8415	1120
2PSV-8407	2PSV-8416	1127
2PSV-8408	2PSV-8417	1134
2PSV-8409	2PSV-8418	1140

* The lift setting pressure shall correspond to ambient conditions of the valve at nominal operating temperature and pressure. Each MSSV has an as-found tolerance of +2%/-3%. Following testing according to LCO 5.5.2.10, MSSVs will be set within +/-1% of the specified lift setpoint.

** Valves 2PSV-8401 and 2PSV-8410 have an as-found lift setting of 1085 psig with a tolerance of +1%/-3%.

5.7 Reporting Requirements (continued)

5.7.1.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

3.b.2 Letter, O. D. Parr (NRC) to A. E. Scherer (CE), dated December 9, 1975 (NRC Staff Review of the Proposed Combustion Engineering ECCS Evaluation Model Changes)

(Methodology for Specification 3.2.1 for Linear Heat Rate)

4.a.1 "Calculative Methods for the C-E Small Break LOCA Evaluation Model," CENPD-137P, August 1974

4.a.2 "Calculative Methods for the C-E Small Break LOCA Evaluation Model," CENPD-137, Supplement 1-P, January 1977

4.b.1 Letter, K. Kniel (NRC) to A. E. Scherer (CE), dated September 27, 1977 (Evaluation of Topical Report CENPD-133, Supplement, 3-P and CENPD-137, Supplement 1-P)

(Methodology for Specification 3.2.1 for Linear Heat Rate)

5. "Modified Statistical Combination of Uncertainties," CEN-356(V)-P-A, May 1988

(Methodology for Specifications 3.2.4 for Departure From Nucleate Boiling Ratio, and 3.2.5 for Axial Shape Index)

c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal hydraulic limits, Emergency Core Cooling System (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.

(continued)

Attachment B

EXISTING TECHNICAL SPECIFICATIONS

San Onofre Unit 3

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.1.9.1	Verify the boron concentration in the BAMU tank(s) is within limits.	7 days
SR 3.1.9.2	Verify the volume of borated water contained in the BAMU tank(s) is within limits.	7 days
SR 3.1.9.3	Verify that each flow path is operable and that each valve (manual, power operated or automatic, that is not locked, sealed, or otherwise secured) in the above required flow paths is in its correct position.	31 days
SR 3.1.9.4	Verify that each automatic valve in the above required flow paths actuates to its correct position on an SIAS test signal.	24 months

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 3.5.2.4	Verify ECCS piping is full of water.	31 days
SR 3.5.2.5	Verify the following ECCS pumps develop the indicated developed head and/or flow rate.	In accordance with the Inservice Testing Program

Pump	Full Flow GPM	Full Flow Head (Ft)	Miniflow Head(Ft)
HPSI-P017	650	≥ 2093	-
HPSI-P018	650	≥ 2132	-
HPSI-P019	650	≥ 2099	-
LPSI-P015	-	-	≥ 396
LPSI-P016	-	-	≥ 396

SR 3.5.2.6	Verify each charging pump develops a flow of ≥ 40 gpm.	In accordance with the Inservice Testing Program
SR 3.5.2.7	Verify each ECCS automatic valve in the flow path actuates to the correct position on an actual or simulated actuation signal.	24 months
SR 3.5.2.8	Verify each ECCS pump starts automatically on an actual or simulated actuation signal.	24 months
SR 3.5.2.9	Verify each LPSI pump stops on an actual or simulated actuation signal.	24 months

(continued)

(continued)

Table 3.7.1-2 (page 1 of 1)
Main Steam Safety Valves (Lift Settings)

VALVE NUMBER		LIFT SETTING*
Steam Generator #1	Steam Generator #2	(psig)
3PSV-8401	3PSV-8410	1085**
3PSV-8402	3PSV-8411	1092
3PSV-8403	3PSV-8412	1099
3PSV-8404	3PSV-8413	1106
3PSV-8405	3PSV-8414	1113
3PSV-8406	3PSV-8415	1120
3PSV-8407	3PSV-8416	1127
3PSV-8408	3PSV-8417	1134
3PSV-8409	3PSV-8418	1140

* The lift setting pressure shall correspond to ambient conditions of the valve at nominal operating temperature and pressure. Each MSSV has an as-found tolerance of +2%/-3%. Following testing according to LCO 5.5.2.10, MSSVs will be set within +/-1% of the specified lift setpoint.

** Valves 3PSV-8401 and 3PSV-8410 have an as-found lift setting of 1085 psig with a tolerance of +1%/-3%.

5.7 Reporting Requirements (continued)

5.7.1.5 CORE OPERATING LIMITS REPORT (COLR) (continued)

3.b.2 Letter, O. D. Parr (NRC) to A. E. Scherer (CE), dated December 9, 1975 (NRC Staff Review of the Proposed Combustion Engineering ECCS Evaluation Model Changes)

(Methodology for Specification 3.2.1 for Linear Heat Rate)

4.a.1 "Calculative Methods for the C-E Small Break LOCA Evaluation Model," CENPD-137P, August 1974

4.a.2 "Calculative Methods for the C-E Small Break LOCA Evaluation Model," CENPD-137, Supplement 1-P, January 1977

4.b.1 Letter, K. Kniel (NRC) to A. E. Scherer (CE), dated September 27, 1977 (Evaluation of Topical Report CENPD-133, Supplement, 3-P and CENPD-137, Supplement 1-P)

(Methodology for Specification 3.2.1 for Linear Heat Rate)

5. "Modified Statistical Combination of Uncertainties," CEN-356(V)-P-A, May 1988

(Methodology for Specifications 3.2.4 for Departure From Nucleate Boiling Ratio, and 3.2.5 for Axial Shape Index)

c. The core operating limits shall be determined such that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal hydraulic limits, Emergency Core Cooling System (ECCS) limits, nuclear limits such as SDM, transient analysis limits, and accident analysis limits) of the safety analysis are met.

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