

Docket File  
50-361/362



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

June 10, 1994

MEMORANDUM FOR: Brian K. Grimes, Director  
Division of Operating Reactor Support, NRR

THRU: Christopher I. Grimes, Chief  
Technical Specifications Branch *CG*  
Division of Operating Reactor Support, NRR

FROM: T. R. Tjader, Reactor Engineer  
Technical Specifications Branch  
Division of Operating Reactor Support, NRR

SUBJECT: SUMMARY OF MEETING WITH SOUTHERN CALIFORNIA EDISON (SCE) ON  
THEIR ADOPTION OF IMPROVED STANDARD TECHNICAL SPECIFICATIONS  
(STS): MAY 24 AND 25, 1994

On May 24 and 25, 1994, a meeting was held with SCE representatives to discuss the adoption of the improved STS by San Onofre Units 2 & 3. The agenda for the meeting is provided in enclosure 1 and the participants are listed in enclosure 2. The NRR/OTSB staff had previously reviewed the SCE adoption submittal and provided comments that are listed together in enclosure 3.

The meeting opened with a discussion of the history and process of adopting the improved STS. In general, the adoption of the improved STS involves the licensee accepting the elements of the improved STS, except where there exists plant specific technical reasons for not adopting the improved STS. Other changes, particularly relaxations, are addressed as generic issues through the Owners Groups (OGs) or should be handled as separate actions to modify the plant licensing basis.

The meeting then proceeded into a discussion of the staff's 222 comments. A substantial number of the comments were resolved during the meeting. As presented in the resolution/status of the comments in enclosure 4, there are four appeal issues, eight generic changes to be submitted through the OGs, and seven other open issues to be resolved. All other comments and issues were resolved. The meeting ended on May 25 with a brief discussion of the remaining process and schedule for approval and adoption. The updated schedule is presented in enclosure 5. The San Onofre improved Technical Specifications are scheduled to be approved (SER completed) by the end of September 1994 with implementation in 1995.

T. R. Tjader, Reactor Engineer  
Technical Specifications Branch  
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Enclosures: As stated

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Original signed by:

T. R. Tjader, Reactor Engineer  
Technical Specifications Branch  
Division of Operating Reactor Support, NRR

Enclosures: As stated

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\*See previous concurrence

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Brian K. Grimes

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AGENDA  
SAN ONOFRE 2 & 3 STS ADOPTION  
MAY 24 & 25, 1994

Enclosure 1

MAY 24

08:00 - 08:30 Discuss agenda and other related remarks  
08:30 - 10:00 Sections 1, 2, 3.0, 4, 5, and 3.9  
10:15 - 11:30 Sections 3.1 and 3.2  
11:30 - 13:00 Lunch  
13:00 - 15:00 Section 3.8  
15:15 - 16:30 Section 3.4  
16:45 - 17:00 Assign action items

MAY 25

08:00 - 10:00 Section 3.3  
10:15 - 11:30 Section 3.7  
11:30 - 13:00 Lunch  
13:00 - 14:30 Sections 3.5 and 3.6  
14.45 - 15:45 Generic Travelers and PCNs  
16:00 - 16:45 Schedule and Process  
16:45 - 17:00 Assign action items

Phone bridge, 301-492-4413, available: May 24, 13:30 - 16:00, and  
May 25, 10:00 - 13:00



MEETING ATTENDEES  
May 24 & 25, 1994

<u>Attendee</u>	<u>Organization</u>
Brian Woods	SCE
Ed Siacor	SCE
Mel Fields	NRR
Bob Tjader	NRR
Sam Bryan	INEL

## Additional Phone Conference Participants

Sharad Khamamkar	SCE
Allen Thiel	SCE
Tom Graham	SCE
Pete Penseyres	SCE
Jim Lazevnick	NRR

SECTION 1.1, DEFINITIONS:

1) Controlled Leakage is no longer an accepted generic definition. What is known as controlled leakage is now an element of identified leakage. Is there an over-riding reason for Controlled Leakage to remain in SONGS plant specific vocabulary?

SECTION 2, SAFETY LIMITS:

1) The wording of 2.2.6 was chosen to mirror 10 CFR 50.36. In 10 CFR 50.36 it says "Operation" and not "Critical Operation." "Operation" here is interpreted to mean evolutions that lead to and maintain criticality, so that all of MODE 2 is included (and in some cases lower MODES, if the intent is to start-up). All of MODES 1 and 2 are the stated applicability of the 2.1.1 SL, and by merely stating "critical operation" all of the SL applicable MODES would not be included (i.e. part of MODE 2).

SECTION 3, LCO APPLICABILITY:

1) LCO 3.0.6 refers to specification 5.8 (Safety Function Determination Program), which is actually specification 5.6 in the SCE submittal.

SECTION 4, DESIGN FEATURES:

1) In 4.2.1, "Fuel Assemblies," the composition of the Integral or Discrete Burnable Absorber Rods should be stated (i.e., Gadolinium or Erbium, with the associated chemical formula).

2) In 4.3.1.1.g, throughout section 5, and in other places in the SCE submittal, reference is made to the Licensee Controlled Specifications. While this is appropriate, it would be nice if the reference included the specific section of the LCS where the referenced information is to be found.

SECTION 5, ADMINISTRATIVE CONTROLS:

1) In 5.1.2 the wording has been changed from that in the NUREG 1432 STS. The reason for this change is not clear.

2) In 5.2.2 two paragraphs are missing. One on the assignment of non-licensed operators (& associated footnote), and the other on the relaxation of crew composition requirements for up to two hours to allow for unexpected absences. See the OG committee mark-up provided. In addition, in 5.2.2.d.2, a sentence is added that permits personnel on 12 hour shifts to work 26 hours in a 48 hour period, which is a change from existing requirements of '24 in 48' for all personnel regardless of shift. It is understood that the concern is not about lengthy turnovers since that is covered by the exclusion of

turnover time in the calculation of the 24 hours. The concern is about annual time changes (to and from Daylight Savings Time), and about slightly delayed turnovers (due to tardy personnel), and that is covered by either: allowing the VP Nuclear Generation to permit deviations (per a following paragraph in 5.2.2); or modifying the watch schedule (slightly); or perhaps invoking the 'two hour crew composition allowance' noted above. The requirements on watchstanding time limitations are clearly stated in GL 82-12. This '26 in 48' sentence should be removed from 5.2.2.

3) In 5.2.2.f and 5.3.1 on STA qualifications, while there is no problem as it is written, SCE may want to consider addressing the requirements in a manner similar to the attached CEQG committee submittal on 5.0.

4) Administrative programs, "Primary Coolant Sources Outside Containment" (5.7.2.4), "Pre-Stressed Concrete Containment Tendon Surveillance Program" (5.7.2.10), "Ventilation Filter Testing Program" (5.7.2.15), and "Diesel Fuel Oil Testing Program" (5.7.2.17), should not be relocated outside the Technical Specifications. The NRC letter of October 25, 1993, meant to say that these programs should be returned to surveillance requirements associated with the TS. That is, they should be relocated within the TS, not outside the TS. These programs should be either returned to the Admin Controls program section, or they should be made SRs.

5) The Inservice Testing Program was not deleted by NRC letter of October 25, 1993. Return this program to the Admin Controls section.

6) The Steam Generator Tube Surveillance Program should be either a program in the Admin Controls section or it should be returned to an LCO, and not relocated outside of the TS. It should be noted that SR 3.4.13.2 in the SCE submittal calls out the Steam Generator Tube Surveillance Program.

7) In section 5.6.3 of the Safety Function Determination Program, if the generic example is deleted, then the references to it (Case A, B, and C, in paragraphs a, b, and c, respectively) should also be deleted.

8) In paragraph b of 5.7.1.5, the Core Operating Limits Report, the applicable topical reports should be listed.

9) In 5.7.1.6, the RCS Pressure and Temperature Limits Report, the applicable topical reports should be listed. Add detail as indicated in the CEQG committee submittal (enclosed).

10) The "High Radiation Area" TS requirements (section 5.11) should not be deleted. This provides an alternate set of requirements for control of High Radiation Areas, as allowed by 10 CFR 20.203(c)(5).

COMMENTS ON SCE STS SUBMITTAL  
FOR SAN ONOFRE 2 & 3

SPECIFICATION 3.1.1,  $SDM-T_{avg} > 200^{\circ}$ :

1) It should be emphasized that the Bases change related to allowing the SDM calculation not to account for a stuck out rod, is only allowed when there are two independent means for verifying all rods are on the bottom, and when there is sufficient shutdown margin to keep the reactor shutdown with the highest worth rod ejected.

2) Do not delete the boration example in the Action A.1 Bases. Make it applicable if necessary.

SPECIFICATION 3.1.2,  $SDM-T_{avg} < 200^{\circ}$ :

1) The new Surveillance Requirement is not addressed in the Bases, and it is not supported in the justifications pages.

SPECIFICATION 3.1.3, Reactivity Balance:

1) The frequency and note to the Surveillance Requirement have been changed without adequate justification (actually, my copy of SONGS STS did not include any justifications for this section). This SR should remain applicable prior to entry into MODE 1.

2) The word "prediction" was substituted for "indication" in the BASES Background section. Why? "Prediction" seems too definite.

3) The reference to the LCS in the BASES Applicability section should be more specific.

SPECIFICATION 3.1.4, MTC:

1) The revisions to SR 3.1.4.2 should not be incorporated without the plant specific analysis and justification called for in NUREG 1366.

2) The last two sentences of the Background section of the BASES should not be changed as indicated (regarding Temperature-Reactivity changes). The STS NUREG is correct.

3) Numerous changes to the BASES require justification/discussion (changes 8, 10, 11, 12, 13).

SPECIFICATION 3.1.5, CEA Alignment:

1) Delete the parenthetical phrase in the LCO on 2 of 3 indications. It is not justified, and it is information that can be addressed in the BASES.

2) Required Action refers to power requirements in the Licensee Controlled Specifications (LCS). This should be more specific, and at a minimum discussed in the BASES.

3) Condition D is not required. The CEA Position indication LCO was deleted by the Split Report. There is no apparent benefit to retaining this Condition.

4) NUREG-1432 change justification comments 12 to 16 are missing.

SPECIFICATION 3.1.8, CEA Insertion Limits:

1) The change to Required Action A.2 is not justified nor is it addressed in the BASES.

SPECIFICATION 3.1.9, BORATION SYSTEMS-OPERATING:

1) The BASES are inadequate and need to be rewritten, meeting the STS format and content requirements.

2) The Required Action(s) to Condition C should be in a standard shutdown progression.

SPECIFICATIONS 3.1.10 AND 3.1.11, BORATION SOURCES AND SYSTEMS, SHUTDOWN:

1) Combine these two specifications. The redundancy is not necessary.

2) It is not necessary to define system OPERABILITY in the LCO. This can be accomplished in the BASES.

3) The BASES are inadequate and need to be rewritten, meeting the STS format and content requirements.

SPECIFICATIONS 3.1.12 STE MODES 2 & 3, AND 3.1.13 STE MODE 1:

1) In general, the changes, and in particular the differences with NUREG-1432 are not justified.

2) In 3.1.12 suspension of LCO 3.3.1 is not adequately justified nor discussed in the BASES (i.e., in the APPLICABLE SAFETY ANALYSIS).

3) In 3.1.13, why isn't Required Action B.1 worded similar to A.1.1 in 3.1.14 (where it appears correctly stated). Why is B.2, "Suspend PHYSICS TESTS," deleted?

4) In 3.1.13 APPLICABLE SAFETY ANALYSIS in the BASES, discuss why a "power plateau  $\leq$  85% RTP ensures that LHR is maintained within acceptable limits."

5) In 3.1.14 Required Actions A, shouldn't PHYSICS TESTS be suspended? Also the numbering is wrong (should be A.1 vs A.1.1). The BASES only address Required Action A.1.1.

SPECIFICATION 3.2.1, LHR:

1) In Surveillance requirement 3.2.1.1, the word "each" was replaced with "all" ... channels. Why? "Each" seems to be more explicit.

SPECIFICATION 3.2.2, F<sub>xy</sub>:

1) "Equal to or less than" versus "less than or equal to," isn't this a generic C.1 change and not a D.1 change. Is it significant enough that you want to deviate from the agreed standard? [Rekurs throughout]

2) The location of the logical connectors or numbering of the Required Actions should be changed to avoid confusion. A.3 can be done alone, and not necessarily in conjunction with A.1.

3) The frequency of SR 3.2.2.1 has been changed from "> 70% RTP" to "> 85% RTP." This needs to be justified. Both the CE STS and your previous TS have "> 70% RTP."

SPECIFICATION 3.2.3, T<sub>q</sub>:

1) The deleted NOTE, previously associated with the B.3 Frequency, should be reconsidered. Perhaps it should be retained with C.2.

2) The BASES for SR 3.2.3.2 has been changed from alerting the operator if "T<sub>q</sub> approaches" to "T<sub>q</sub> exceeds" its limit. "Approaches" seems more appropriate.

3) In the third paragraph of 10, justifying the new C.1 ....., the third sentence states "T<sub>q</sub> > 0.10" and it should be "T<sub>q</sub> < 0.10."

SPECIFICATION 3.2.4, DNBR:

1) The LCO deletes reference to specific figures in the COLR, why?

COMMENTS ON SCE STS SUBMITTAL  
FOR SAN ONOFRE 2 & 3

SPECIFICATION 3.3.1, RPS INSTRUMENTATION-OPERATING:

- 1) The LOSS OF LOAD and STEAM GENERATOR HIGH trips have been deleted. They are included in the Licensee Controlled Specifications. It is stated that the trips are for equipment protection only. Reference to NRC/SER Chapter 7.2.1 is made. The SER is not identified (Description of Proposed Change NPF-10/15-299, item 11). Justify (i.e., identify SER) the acceptability of their removal from the Technical Specifications.
- 2) The frequency of SR 3.3.1.5 specified in the Unit 2 and 3 Technical Specifications was changed to 92-days from the NUREG-1432 specified 31-days with no annotation, description, or justification. That frequency should revert to 31-days.
- 3) The frequency of SR 3.3.1.6 for calibrating the Excore nuclear instrumentation was changed from the 31-days of NUREG-1432 to 92-days based on a Pickard, Lowe, and Garrick, Inc., evaluation. Provide that evaluation for NRC review to determine whether the basis for this change is acceptable.
- 4) On Table 3.3.1-1, note a, the NUREG-1432 'bypass shall be automatically removed when THERMAL POWER is  $\leq [1E-4]\%$  RTP' has been changed to 'bypass shall be automatically removed when THERMAL POWER is  $< [1E-4]\%$  RTP' with no annotation, explanation, or justification. Justify this minor change.
- 5) On Table 3.3.1-1, note c, the NUREG-1432 'trips may be bypassed when pressurizer pressure is  $< [400]$  psia. Bypass shall be automatically removed when pressurizer pressure is  $\geq [500]$  psia' has been changed in the SONGS Technical Specifications to read 'trips may be bypassed when pressurizer pressure is  $< [472]$  psia. Bypass shall be automatically removed when pressurizer pressure is  $\geq [472]$  psia'. The initial change of 400 to 472 appears to be a typographical error, otherwise justify this change (compare with table 3.3.5-1).
- 6) On Table 3.3.1-1 footnote d was added to the markup of NUREG-1432. The footnote reads 'trip can not be bypassed if ESF channels are required OPERABLE in Mode 3 because of shared bypass circuit breakers'. This footnote was not called out in the list of changes to the NUREG. The proposed SONGS Technical Specifications do not have this footnote. Verify that the markup footnote d is not needed.
- 7) Table 3.3.1-2 specifies the process measurement and trip bypasses associated with REQUIRED ACTIONS A.1 and A.2, and it amplifies the 'Functional Unit' of those REQUIRED ACTIONS. The table does not include logarithmic power level - high, pressurizer pressure - low, or reactor coolant flow - low. Local power density - high and departure from nucleate boiling ratio (DNBR) - low are indicated as part of the core protection calculator, but not otherwise included. Why are these trips not included?
- 8) On Bases page B3.3-1, reference 1 in the second paragraph is to General Design Criteria 21. Reference 1 appears on page B 3.3-1 to 10 CFR 20



along with reference 2 to 10 CFR 100. 10 CFR 50, Appendix A, GDC 21, does not appear in the References section. The references should be renumbered to include this reference. Note: - Reference 3 in the NUREG has been deleted by the licensee in the narrative in the following paragraph. However, it still is listed in the References section of the BASES. That reference should be removed.

9) In the APPLICABLE SAFETY ANALYSES section of the Bases, page B 3.3-12, the discussion ends '; and' because the subsequent line-item listing was deleted from NUREG-1432 by the licensee. 'And' should be relocated to the previous line.

10) In the APPLICABLE SAFETY ANALYSES section of the Bases, page B 3.3-13, changes to paragraphs 3, 4, and 5 justification is that they are "changes that delete information not relevant to the SONGS design." The same justification is used for each of the three changes, yet in items 4 and 5, 'CCAS' is added. The licensee should justify these changes individually and specifically.

11) In the APPLICABLE SAFETY ANALYSES section of the Bases, page B 3.3-16, paragraph 12 on DNBR-Low, 'Single Reactor Coolant Pump (RCP) Shaft Seizure' and 'Steam Generator Tube Rupture' have been removed from the listed events. The annotated reason, No. 4, states additional detail is provided in the Bases for the SR. There is not apparent justification provided for the removal of these two events. The licensee should justify eliminating these two line item events.

12) In the LCO section of the Bases on Reactor Coolant Flow, page B3.3-21, the section title is left out, resulting in the merging of this section with the Steam Generator Level - Low section. The section title should be restored.

13) In the ACTION section of the Bases, on page B 3.3-27 the section title, 'D.1 and D.2' is left out. On page B 3.3-28, the section title, 'F.1' is left out. Note that G.1 (Continued) on Page 3.3-29 is NOT a Surveillance Requirement, but a continuation of the ACTIONS. The BASES for the SURVEILLANCE REQUIREMENTS begins later on the page.

14) The Bases for SR 3.3.1.4 on line 4, the word 'Agree,' marked out in the NUREG-1432 markup, should be removed from the SONGS document.

15) The Bases for SR 3.3.1.7, on bistable tests, two paragraphs in NUREG-1432, beginning with 'As found and as left setpoints are recorded,' were eliminated from the markup with no justification. The licensee should justify this deletion.

16) The Bases for SR 3.3.1.9, two paragraphs in NUREG-1432, beginning with 'As found and as left calibration values are recorded,' were eliminated from the markup with no justification. The licensee should justify this deletion.

17) In SR 3.3.1.10, the NUREG statement, "Operating experience has shown that undetected CPC or CEAC failures do not occur in any given [18] month interval," was changed by the licensee to a 24-month interval. No



justification was provided for this change. The licensee should support this change by evidencing the statement is true regardless of an 18- or 24- month interval.

18) The licensee notes in their Description of Change (NUREG-1432 and Proposed SONGS Technical Specifications), that "the logarithmic power level monitoring instrument has been replaced with the source range monitoring instrument." The nomenclature for this LCO and BASES needs to be made consistent and clear. See also LCOs and Bases for 3.3.2 and 3.3.13. The nomenclature should be consistent throughout the Technical Specifications.

#### SPECIFICATION 3.3.2, RPS INSTRUMENTATION-SHUTDOWN:

1) The Bases for SR 3.3.2.2, on bistable tests, two of three paragraphs in NUREG-1432, beginning with 'As found and as left setpoints are recorded,' were eliminated from the markup with no justification. The licensee should justify this deletion.

2) The Bases for SR 3.3.2.4, two paragraphs in NUREG-1432, beginning with 'As found and as left calibration values are recorded,' were eliminated from the markup with no justification. The licensee should justify this deletion.

#### SPECIFICATION 3.3.3, CEACs:

1) GENERIC questions regarding CONDITION C - (a) Should the Completion Time of '12 hours' (after receipt of a CPC channel B or C cabinet high temperature alarm) to perform a CHANNEL FUNCTIONAL TEST on the affected CEAC(s) be '12 hours and once per 12 hours until high temperature alarm is cleared'? (Which CHANNEL FUNCTIONAL TEST [SR 3.3.3.3, SR 3.3.3.5, or both, see comment on Surveillance Requirement, below] is required?) (b) ACTION CONDITION C.1 is based on high temperature alarms in the CPC cabinets B or C. The CPAC CEA isolation amplifiers are in CPC cabinets A and D (BASES SR 3.3.3.6). In light of the operational need for these isolation amplifiers, should ACTION CONDITION C.1 be based on high temperature alarms in CPC cabinets A, B, C, or D?

2) Both SR 3.3.3.3 and SR 3.3.3.5 require the licensee to "perform a CHANNEL FUNCTIONAL TEST;" SR 3.3.3.3 every 92-days and SR 3.3.3.5 every 18-months (SONGS changes this to 24-months, and needs to be justified). The BASES indicate these tests are different, in that SR 3.3.3.3 is a software-based test and the SR 3.3.3.5 test injects a signal as close to the sensors as possible for an end-to-end test, including alarms and trips. The tests required by the two surveillance requirements should have different test title nomenclature to avoid confusion. Action C (noted above) then should refer to the specific Surveillance Requirement.

3) In the ACTION B.1 section of the Bases, the reference to 'LCO 3.2.5, AXIAL SHAPE INDEX (ASI),' in NUREG-1432 is changed in the proposed SONGS Technical Specifications to 'LCO 3.2.4, "DNBR,"'. However, the continuation of the sentence, 'ensures ... ASI ... within a conservative region' remains unchanged. The licensee should verify and justify the validity of this

change.

4) The Bases for SR 3.3.3.4, two paragraphs in NUREG-1432, beginning with 'As found and as left calibration values are recorded,' were eliminated from the markup with no justification. The licensee should justify this deletion.

5) In the Bases for SR 3.3.3.5, the extraneous '7778' should be deleted.

#### SPECIFICATION 3.3.4, RPS LOGIC AND TRIP INITIATION:

1) The frequency for SR 3.3.4.1 has been changed from the NUREG 92-days to 31-days. The BASES was not changed, and remains at 92-days. Resolve this discrepancy, and justify if changing to 31-days.

2) Reference 1 in the Bases should be changed from 10 CFR 50 to 10 CFR 20 (as done in sections on 3.3.1, 3.3.2, and 3.3.3).

3) Reference 4 in the Bases on the NRC Safety Evaluation Report should be deleted, and Reference 5 renumbered accordingly.

#### SPECIFICATION 3.3.5, ESFAS INSTRUMENTATION:

1) Table 3.3.5-2 should be addressed in the Bases.

2) Reference 3 has been deleted in the Background section of the Bases. The remaining references need to be renumbered, and Reference 3 removed from the REFERENCE Section.

3) In the Background Section of the Bases, under "Measurement Channels," in the next to last paragraph, the sentence 'plants that have demonstrated adequate channel to channel independence may operate...' should be made specific to San Onofre and not a generic catch-all.

4) There is an extraneous second "LCO" header on page B 3.3-93.

5) On Bases page B 3.3-101, the heading for Section SR 3.3.5.6 is missing above the last paragraph.

6) In SR 3.3.5.6 Bases, the last paragraph, 'With 92 days of startup' should read 'once within 92 days prior to each reactor startup.'

#### SPECIFICATION 3.3.6, ESFAS LOGIC AND MANUAL TRIP:

1) In the APPLICABLE SAFETY ANALYSES section of the Base, it states in paragraph 5 that 'CSAS is initiated by high containment pressure and a coincident.' should end with '... and with a coincident SIAS.'

2) In the LCO section of the Bases, paragraph 4 on the Recirculation Actuation Signal - Matrix Logic, add MODE 4 applicability (per Table 3.3.6-1).

3) In the ACTIONS section of the Bases, CSAS is moved from ACTION E.1 and E.2 to ACTION F.1 and F.2. In the Technical Specification ACTIONS, CONDITION E includes Containment Spray Actuation Signal and CONDITION F.1 and F.2 does not. The licensee should resolve this discrepancy. If changes to the ACTION CONDITIONS result, those changes will need justification.

#### SPECIFICATION 3.3.7, DG-UNDERVOLTAGE START:

1) In SR 3.3.7.3a, on time delay, 'At 9228 V' should be 'at 4228-Vac.'

2) The acronym 'LOVS' is used despite the licensee changing the LCO title from 'loss of voltage start' to 'undervoltage start' and deleting the definition for 'LOVS'. The licensee should reword the BASES consistently in accordance with what was done in LCO 3.3.7. If used the acronym 'LOVS' should be defined in the text.

3) In the Background section of the Bases, in first paragraph under Trip Setpoints and Allowable values, 'a detailed description of the methodology used to calculate the trip setpoints, including their explicit uncertainties is provided in Reference 3' was deleted. Justify the deletion. What is the Basis (or where is it found?) for the Trip Setpoints and Allowable Values?

4) In SR 3.3.7.3 Bases, the licensee deleted the second and third paragraphs of NUREG-1432 with no description or justification.

#### SPECIFICATION 3.3.8, CPIS:

1) In the Background section of the Bases, in first paragraph under Trip Setpoints and Allowable values, 'a detailed description of the methodology used to calculate the trip setpoints, including their explicit uncertainties is provided in Reference 2' was deleted. Justify the deletion. What is the Basis (or where is it found?) for the Trip Setpoints and Allowable Values?

2) In the third paragraph of the LCO section of the Bases 'These uncertainties are defined in ... (Ref. 2)' was deleted without annotation, description, or justification. This deletion should be resolved in concert with the immediately preceding comment.

3) In the References section of the Bases, generic document titles should be replaced with actual document references. Also, check the use of references, and delete and renumber as appropriate.

#### SPECIFICATION 3.3.9, CRIS:

1) In SR 3.3.9.2, when the brackets were removed around "Allowable Value," the word "setpoint" should have been removed.

2) In the Background section of the Bases, in first paragraph under Trip Setpoints and Allowable values, 'a detailed description of the methodology used to calculate the trip setpoints, including their explicit uncertainties is provided in Reference 2' was deleted. Justify the deletion. What is the Basis (or where is it found?) for the Trip Setpoints and Allowable Values? Adjust references as required.

3) In the APPLICABILITY section of the Bases, 'For those plants that credit gas decay tank rupture accidents, the CRIS must also be OPERABLE in MODES 5 and 6' was deleted with no annotation, description, or justification.

4) In the References section of the Bases, reference 2 appears to be a generic reference, though different from section 3.3.8 and NUREG-1432. It should be replaced with the specific reference for setpoint calculations for this instrumentation. Note that 'Valves' should be 'Values.'

#### SPECIFICATION 3.3.10, FHIS:

1) Bracketed SR 3.3.10.6, verifying FHIS channel response time was deleted. The justification noted was an editorial correction. SR 3.3.10.6 should be added to the proposed SONGS Technical Specifications.

#### SPECIFICATION 3.3.11, PAMI:

1) Required Action B.1 and H.1 to 'Initiate action in accordance with Specification 5.7.2' is no longer correct. PAM report is not required by 5.7.2. Either restore PAM report requirement to the Administrative Controls Section or be explicit in B.1 and H.1.

2) On Table 3.3.11-1, Function 18 (AFW Flow), the REQUIRED CHANNELS from NUREG-1432 '2' have been changed to 'one per steam generator' with no annotation, explanation, or justification.

3) In the LCO section of the Bases, in paragraph 1 on EXCORE Neutron Flux, the bracketed 'At this unit, the [wide-range] Neutron Flux PAM Channels consist of the following,' has been deleted. No description of the SONGS EXCORE Neutron Flux instrumentation was provided. The licensee should briefly describe the EXCORE Neutron Flux instrumentation here. The licensee description should document that this is a Type A variable (per the SER) and describe how it is used by the Emergency Operating Procedures.

4) In NUREG-1432 in the LCO section of the Bases, for Functions 1 and 6-11 the words 'For this unit, \_\_\_\_\_ instrumentation consists of the following:' are bracketed. The licensee choose not to describe the instrumentation. For a Type A variable, the description should include how the instrumentation is used in the Emergency Operating Procedures. This determination should also apply to the licensee instrumentation added to the table (Functions 19 - 27).

5) In the LCO section of the Bases, in the last paragraph of 4 on RCS WR Pressure, references to this variable as a Type A variable have been deleted. The NRC SER indicates this instrumentation monitors a Type A

variable. This discrepancy should be resolved. NOTE: The NRC SER identifies the following Functions of TABLE 3.3.11-1 as TYPE A variables; 1 - 7, 10, 12, 14 - 17, 19, and 23 - 27. The licensee description should identify this instrumentation that monitors Type A variables and describe how it is used in the Emergency Operating Procedures. (See previous comment.)

6) In the LCO section of the Bases, in paragraph 8 on Containment Isolation Valve Position, a line is missing. The markup of NUREG-1432, insert A, included 'in a containment penetration flow path, i. e., two total channels of PCIV' that was not transferred to the proposed SONGS Technical Specifications. The licensee should restore that wording.

7) In the LCO section of the Bases, in paragraph 12 on Steam Generator Water Level, in the last sentence, 'extended startup range' should be 'wide-range.'

8) In the LCO section of the Bases, in paragraph 13 on Condensate Storage Tank Level, it states that 'meter and annunciator are considered the primary indication used by the operator.' Annunciators are not post-accident monitoring instrumentation for this variable as defined in Regulatory Guide 1.97. Stating the annunciator is a primary indication is erroneous. The sentence should be reworded to delete mention of the annunciator as a primary indication.

9) In the LCO section of the Bases, in paragraph 18 on AFW Flow, 'Redundant monitoring capability is provided by two independent trains of instrumentation for each steam generator' was eliminated when incorporating the NUREG-1432 markup into the proposed SONGS Technical Specifications with no annotation, explanation, or justification.

10) In the LCO section of the Bases in the proposed Tech Specs, on page B3.3-167, the following paragraph (as modified by the licensee (NUREG-1432 markup) was left out: 'In Table 3.3.11-1, the exception to the two channel requirement is Containment Isolation Valve Position, Auxiliary Feedwater Flow, Pressurizer Safety Valve Position Indication, HPSI Flow Cold Leg, and HPSI Flow Hot Leg.' The licensee should restore this information. Also, on the same page, 'Plant Specific Evaluations in response to Item II.F.2 of NUREG-0737 (Ref. 3) should have identified the thermocouple pairings that satisfy these requirements' should be replaced with a positive statement in the SONGS-2/-3 Technical Specifications regarding the evaluation of pairings.

11) In the Bases for SR 3.3.11.3, the CHANNEL FUNCTIONAL TEST should be described (as is done for other testing in SR 3.3.11.2, SR 3.3.11.4, and SR 3.3.11.5).

12) In the Bases for SR 3.3.11.4, the proposed Technical Specifications gives an 18-month CHANNEL CALIBRATION interval, matching NUREG-1432 and its BASES. The proposed SONGS BASES was transposed to 24-months.. The licensee should correct the BASES to 18-months.

13) In the Reference section of the Bases, is Reference 4, "NRC Safety Evaluation Report (SER)," needed? Where is reference to it?

14) The licensee uses the acronyms CCIV, CIV, and PCIV, apparently



interchangeably. Use of acronyms should be defined and consistent.

#### SPECIFICATION 3.3.12, REMOTE SHUTDOWN SYSTEM:

1) In Table 3.3.12-1 the following instruments are not included that are in Table 3.3-9 of the existing Tech Specs: Condenser Vacuum, Volume Control Tank Level, Letdown Heat Exchanger Pressure, and Letdown Heat Exchanger Temperature. Why are they excluded?

2) In the Bases Background and LCO sections, 'with sufficient instrumentation and controls to place and maintain the unit in a safe shutdown condition ...' has been changed to 'with sufficient instrumentation to place and maintain the unit in a safe shutdown condition ...' with no explanation or justification. The controls must be available for the remote shutdown capability to function. 'And controls' should be restored to the BASES at the three applicable locations.

3) In the Reference section of the Bases, mention of Reference 2 (NUREG-1432, Reference 3) 'NRC Safety Evaluation Report (SER),' has been deleted from the BASES. Is the listed Reference 2 still necessary?

4) NUREG SR 3.3.12.2 to 'verify each required control circuit and transfer switch is capable of performing the intended function' was deleted. The licensee states it is not a SONGS surveillance. The current Technical Specifications do not require it. The NUREG BASES/LCO states the 'LCO is intended to ensure that the instrument and control circuits will be OPERABLE if plant conditions require that the Remote Shutdown System be placed in operation.' How can this confidence be ensured without testing the controls?

#### SPECIFICATION 3.3.13, SR MONITORING CHANNELS:

1) In the fifth sentence of the third paragraph of the Bases Background section, the word 'range' is repeated. The second 'range' should be deleted.

2) In the Bases for SR 3.3.13.3, the paragraph in NUREG-1432, beginning with "As found and as left calibration values are recorded," was eliminated from the markup with no justification.

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SPECIFICATION 3.4.1, RCS Pressure, Temperature, and Flow Limits:

- 1) The RCS total flow rate values are relocated to the COLR. Since there is no justification provided and flow rate values are in the STS, these values should be retained. Flow rates, within the existing Tech Spec bands, are not cycle specific.
- 2) A Note has been added stating that cold leg temperature limits do not apply when rated thermal power is less than or equal to 30%. Justification is stated to be that it is SONGS specific (Difference Category B2). The technical basis was not presented, however, existing LCO 3/4.2.6 Applicability did limit applicability for cold leg temperature limits to less than 30% RTP. A discussion of this exception is needed in the Bases. This change was not made to the LCOs in Attachments D and E LCO revisions.
- 3) SR 3.4.1.4 and associated Bases have been deleted. The change is not adequately justified, i.e., SONGS justifies the deletion by stating that this SR is not in the current Bases. Normally, the flow is back calculated for verification and calibration purposes, and the STS should be followed.
- 4) The titles for LCOs 3.4.1 and 3.4.3 are very similar and might cause confusion. Perhaps the title for 3.4.1 should be changed (to, for instance, "Pressurizer Pressure, Cold Leg Temperature, and Flow Limits").

SPECIFICATION 3.4.2, RCS Minimum Temperature for Criticality:

- 1) References to T-average have been replaced with cold leg temperature. A D1 Category, Plant Specific Design, change. While this seems to make sense, it needs to be justified, considering that the existing SONGS TS refer to  $T_{AV}$ .
- 2) The Applicability statement that limits  $T_{AV}$  to  $\geq 520^{\circ}\text{F}$  when  $k_{eff} \geq 1.0$  has been changed. The justification category is D1. This justification is inadequate.
- 3) The required temperature verification within 15 minutes before achieving criticality, that is in the STS and in the existing SONGS TS, has been eliminated. The justification category is D1. This should not be changed, since the purpose is to avoid going critical with the temperature too low.

SPECIFICATION 3.4.3.1, Pressurizer Heatup and Cooldown Limits:

- 1) The Bases consists of a very minimal Background discussion with other Bases sections not included. The Bases are inadequate and need to be written with the required content in the prescribed format.

SPECIFICATION 3.4.6, RCS Loops - Mode 4:

1) The Bases discussion for Note 2 in the LCO statement deletes the 285°F cold leg temperature required to start an idle RCP and replaces it with the "LTOP enable temperature specified in the PTLR". The technical justification is not adequate.

SPECIFICATION 3.4.7, RCS Loops - Mode 5, Loops Filled:

1) In the LCO Statement, Note 4 has been changed from prohibiting the starting an idle RCP if a cold leg temperature is  $\leq 285^{\circ}\text{F}$ , to  $\leq$ "LTOP" enable temperature". This lacks technical justification.

2) In the LCO Statement, a new Note 5 (Insert C) permits SONGS to use a containment spray pump in place of a low pressure safety injection pump if the reactor has been subcritical for 24 hours and the RCS is fully depressurized and vented. This is justified by SONGS as a B2, Plant Specific Design change. It is permitted in the existing SONGS TS via a footnote, however, that footnote is followed by a parenthetical statement that states "Subsequent to implementation of DCP 2-6863". The status and justification of allowing this pump substitution should be clarified.

3) Consider consolidating insert A (LCO paragraph a). It can be written more concisely by combining sentences 1 & 2, and sentences 3 & 4.

4) Condition B and Required Action B.2 has been changed and reference to operability deleted. These deletions are not justified, and do not conform to the STS method of stating operability requirements.

SPECIFICATION 3.4.9, Pressurizer:

1) In the LCO section of the Bases, the discussion of the derivation of design values for heater capacity has been deleted. This deletion is justified by SONGS as a plant specific design difference, and rather than be deleted should be made applicable to SONGS.

SPECIFICATIONS 3.4.12.1 and 3.4.12.2, LTOP System:

1) In the Applicability of 3.4.12.1, Note 1 is new and is not addressed in the Bases (Note 2 in 3.4.12.2 Applicability). Justify this Note and include in the Bases.

2) The Frequency and the wording of SR 3.4.12.1.4 should be revised. This SR is only to be performed if a pair of SDCS Relief Isolation Valves are inoperable (in action statement D). As written, this SR would be performed every 12 hours whenever the applicability of this LCO exists.

3) Condition statement D is clumsy. It should be written more concisely.

4) In the Bases section on Applicable Safety Analysis, the discussion



on the SDC System relief valve performance is confusing. A better explanation is needed to clarify the design relationship of isolation valves and valve pairs, their configuration, and how they are operated to isolate the relief valve.

SPECIFICATION 3.4.13, RCS Operational Leakage:

1) In SR 3.4.13.1, a phrase has been added to the Frequency Note to clarify what to do regarding the requirement to take an inventory balance, if a transient occurs when the inventory is due. No justification was provided. Why isn't the 1.25 SR extension allowed in SR 3.0.2 ( $72 \times 1.25 = 90$ ) sufficient?

SPECIFICATION 3.4.14, RCS PIV Leakage:

1) Table 3.4.14-1 is not mentioned in the Bases. Should this table be in the UFSAR?

2) In the Background section of the Bases, the statement identifying the listing of the UFSAR section is deleted. Apparently this information is available in several sections and should be referenced.

SPECIFICATION 3.4.15, Leakage Detection Instrumentation:

1) The A.1 Required Action of the STS, in the Attachment C markup, is not included, possibly because the STS step imposes an SR inventory Frequency of 24 hours, and it is routinely done every 72 hours anyway. This deletion is not adequately justified, and the step should be reinserted.

2) The Frequency for performing SR 3.4.15.3 & 4, the Channel Functional Test of the gaseous and particulate monitors, is changed from the STS value of 31 days to 92 days. The justification is stated as Plant Specific Design, B2. That is not proper justification.

3) The Bases do not address the new condition C. The Required Actions and Completion Times in the Bases for Condition C are really those for Condition D of the LCO. This should be corrected.

SPECIFICATION 3.4.16, RCS Specific Activity:

1) In Required Action for Condition A, a Note is inserted stating that LCO 3.0.4 does not apply, i.e., restrictions for changing modes. No justification is provided. The reason is addressed in the Bases and this exemption only applies to an iodine spike following a plant trip. The Note needs to be modified and justified.

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SPECIFICATION 3.5.1, SAFETY INJECTION TANKS:

1) In the Applicable Safety Analysis Bases discussion on precautions to assure that the SITs are available during an accident, an explanation as to how the SIT vent valves are disabled to avoid inadvertent opening by either removing fuses or by opening the vent valve motor disconnect switches has been inserted. It is also explained that the surveillance to ensure that power is removed from the vent valve to preclude opening is in the Licensee Controlled Specifications (LCS). The existing LCO and Bases do not include the vent valves. Since an open vent valve during operation would be readily apparent, this treatment may be acceptable. However, an explanation should be provided about why these valves should not be in TS.

2) In the SR 3.5.1.4 Bases, it is proposed to delete from the Bases the sentence for verifying the boron concentration of the SIT, after having 1% or greater volume addition, by sampling, and in its place inserting a discussion that allows a calculation for this determination. This calculation is not explained. Further justification for understanding this procedure should be provided.

SPECIFICATION 3.5.2, ECCS-OPERATING:

1) SR 3.5.2.1 has been divided into two parts, SR 3.5.2.1 a and SR 3.5.2.1 b. This numbering is different from all other SR numbers. Is it not preferable to renumber the SRs, doing away with the parts a and b?

2) In the seventh paragraph of the Bases Background, an insert is added explaining that for LOCAs too small to initially depressurize the RCS below the shutoff head of HPSI pumps, reliance is placed on the charging pumps to maintain inventory. It is stated that that is why motor operated auxiliary and manual auxiliary spray valves must remain locked closed and valves in the charging flow path to the RCS must remain open. This change is justified as a D1, Plant Specific Design difference. The reason for the auxiliary spray line valves being required to be closed and locked is not adequately explained in the Bases.

SPECIFICATION 3.5.3, ECCS-SHUTDOWN:

1) In the LCO Bases, the last sentence of this discussion incorrectly states that "in Mode 4 with RCS cold leg temperature less than or equal to those specified in the PTLR, a maximum of one HPSI pump is allowed to be operable". LCO 3.4.12.1 for the LTOP System states in the LCO, "No more than two high pressure safety injection pumps shall be operable.. ." The accident analysis supports two operable. This should be changed.

SPECIFICATION 3.5.5, TSP:

1) The SR 3.5.5.1 and SR 3.5.5.2 Frequencies were changed from 18 months to 24 months to coincide with the proposed 24 month refueling outage and is as based on operating experience with the crystals. It is feasible to do this SR only with the plant shut down. The justification for this interval change is given as D1, Plant Specific Design. Supporting evidence of acceptability of sustaining the TSP crystal volume for this added time is not provided, only the statement based on "operating experience". Other justification should be provided to ensure the crystal volume required by the analysis is available after 24 months in the event of an accident.

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SPECIFICATION 3.6.1, CONTAINMENT:

1) The Bases Background section on page B 3.6-1, paragraph 2, line 3, in Attachment C the first portion of the sentence is shown as deleted, "For containments with ungrouted tendons,---"; but was not deleted in Attachments D & E.

2) In the Bases references 2 and 3 are identical. Delete reference 3, and renumber the references.

SPECIFICATION 3.6.2, CONTAINMENT AIR LOCKS:

1) The added Required Action note 3, indicates the "provisions of LCO 3.0.4 are not applicable", why not? If so, should conditions B & C carry this same note as well (is the note located properly, see proposed location in LCO 3.6.3)?

2) In the Bases to SR 3.6.2.2, the containment air lock "door interlock" is described as preventing "simultaneous opening of the inner and outer doors." The term "simultaneous opening" has two interpretations, only one of which is correct in this application. This sentence can be incorrectly interpreted to mean that both doors can be open at the same time, but they both cannot be opened at once. Perhaps it would be better to just state something along the lines of, "preventing the doors from being open at the same time."

3) In the Bases Background, on the sixth line of the fourth paragraph in attachment C, the word "unit" was deleted; the word "unit" was not deleted in the corresponding locations in Attachments D & E.

4) In the Applicable Safety Analysis section of the Bases in Attachment C (pg. B 3.6-11) it shows "For atmospheric containment,---" deleted; the cited pages for Attachments D & E (pg. B 3.6-6, para. 1, line 1) show no such deletion.

5) Bases Reference sections should be consistent. The Reference sections to 3.6.1 and 3.6.2 refer to the UFSAR differently.

SPECIFICATION 3.6.3, CONTAINMENT ISOLATION VALVES:

1) The Bases to SR 3.6.3.7, on page B 3.6-30 of Attachment C, the hand written insert in the left margin contains the word "---demonstrated---". This word is not included in the corresponding text of Attachments D & E.

2) Note 5 has been added under ACTIONS. It indicates that the "provisions of LCO 3.0.4 are not applicable", why not?

3) The Condition statements refer to containment sections A, B, C, or

E. It would be useful if the Bases briefly discussed these containment sections.

SPECIFICATION 3.6.4, CONTAINMENT PRESSURE:

1) In the Bases, Attachments D & E, pg. B3.6-27, para. 4, line 1, the second from the last word in the cited line there is a typographical error; "---thyhe e---" should be "---the."

2) In the Bases, Attachments D & E, pg. B 3.6-28, para. 1, line 2, the cited "57.3" psig should instead be "57.2" psig. The 57.2 psig comes from adding the 55.7 and 1.5 psig figures appearing elsewhere in the text.

SPECIFICATION 3.6.6.1, CONTAINMENT SPRAY AND COOLING SYSTEMS:

1) In the Completion Times (CT) for Conditions A and C, the second part of the CT (AND 10 days from ...), has been deleted without justification. This should be retained.

2) In the Bases, in Attachments D & E, pg. B 3.6-34, paragraph 2, line 3, the second word in the line is "on"; the correct word is "in."

3) In the References section of the Bases, References 2, 3, and 4 are identical and should be consolidated.

SPECIFICATION 3.6.6.2, CONTAINMENT COOLING SYSTEM:

1) In the References section of the Bases, References 2, 3, and 4 are identical and should be consolidated.

SPECIFICATION 3.6.7, HYDROGEN RECOMBINERS:

1) The Required Action note, indicates the "provisions of LCO 3.0.4 are not applicable", why not? If so, should conditions B & C carry this same note as well (is the note located properly, see proposed location in LCO 3.6.3)?

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SPECIFICATION 3.7.1, MSSVs:

1) The use of a Safety Valve Operating Report (SAVOR) has not been approved. To be approved the methodology for determining the safety valve setpoints (lift and trip) and the number of safety valves required per operating power level needs to be submitted for review. Return tables 3.7.1-1 and 3.7.1-2 to LCO 3.7.1 and all associated changes to the STS (NUREG-1432) format. Even with an approved methodology it is not clear that the related information is appropriate for relocation to a report outside of Technical Specifications.

2) Required action A.2, reducing overpower trip setpoints, should not be deleted.

3) The change in Conditions A and B wording, from the STS wording, to "per SG" is not consistent with the existing San Onofre TS. The change in wording is not necessary; table 3.7.1-1 will stipulate the appropriate power level for the number of inoperable MSSVs.

4) PCN 329, on changing the MSSV set point tolerances is still under review.

5) In the Bases, Applicable Safety Analysis section, the change in the third from last paragraph was not incorporated correctly. It should be "... which is less than the rated capacity of four of the MSSVs" and not "... equal to the rated capacity...".

6) Changes to the Bases should be made consistent with the above comments.

SPECIFICATION 3.7.2, MSIVs:

1) The sixth paragraph of the proposed Bases Background is not included in the STS mark-up (Attachment C). Why is this paragraph included?

2) In the proposed Bases Action section, the number A.1, and the first two lines of the first paragraph were left off the first paragraph and were included at the beginning of the second paragraph. This is an editorial error.

SPECIFICATION 3.7.3, MFIVs:

1) The completion time (CT) for Required Action A.1 has been changed from 72 hours (in the STS) to 7 days (in the proposed TS) based upon PRA data. While the PRA data quoted indicated a quite low CDF, in general changes to the TS are not incorporated based upon PRA data alone. In addition, the San Onofre design has only one MFIV per SG, while the STS was based upon 2 MFIVs per SG (which would lead to a conclusion for a shorter CT). Prior to



accepting this change the NRC staff needs to evaluate the PRA data. Do not change the A.1 CT to 7 days.

2) In the LCO Bases section, the last sentence of the second paragraph of this subsection in the STS was not included in the proposed TS for Units 2 and 3. There is no justification for its deletion (its deletion may be inadvertent).

SPECIFICATION 3.7.4, ADVs:

1) The last two sentences in SR 3.7.4.2 Bases, as provided by the STS, were deleted in the Proposed TS for Units 2 and 3. The licensee should justify this deletion and include information on the appropriate frequency.

SPECIFICATION 3.7.5, AFW System:

1) Where did the version of the NUREG-1432 STS that was used in Attachment C come from? Conditions C through F are significantly different in my version and need to be discussed.

2) Do not delete "AND 10 days from discovery of failure to meet LCO," from the Completion Times. The justification for its removal did not make sense.

3) The last sentence of the second paragraph of the Bases for Action F.1, and the entire third paragraph of this subsection are a duplication of the Bases for Actions G.1 and G.2. Delete these in the Bases for Action F.1.

4) In SR 3.7.5.5, the units at the end of the second paragraph should be psig (as per the STS) rather than psia. The licensee should confirm this.

5) In the Note for SRs 3.7.5.2, 3.7.5.3, and 3.7.5.4 the frequency for performance of the identified surveillance requirements was changed from 24 hours to 72 hours. This frequency needs to be justified and addressed in the Bases.

SPECIFICATION 3.7.6, CST:

1) The Required Action B.2 completion time was increased from 18 to 36 hours without adequate justification.

2) CST tank level requirements in the LCO have been changed from gallons to percent (which is how the tank level is read). The actual capacity requirement is in terms of gallons, as it appears in the existing TS. Retain level requirement in gallons, and if desired San Onofre can stipulate level requirements in both gallons and percent.

3) Condition A should be "T-121 or T-120," not "and".

SPECIFICATION 3.7.10, ECW System:

1) In the Background section of the Bases, the first paragraph of insert A is confusing. The first sentence says that the ECWS remains operable if a supported system is inoperable or not required. Insert A needs to make clear that if the supported system inoperability is caused by the ECWS, then the ECWS is inoperable. Also, with insert A as written, it is not clear if the standby ECWS train would ever be considered inoperable (i.e., condition A would only be entered if the on-line ECW train became inoperable and then it is not certain that the standby ECW train would be available, let alone operable).

2) In the Background section of the Bases, only the first sentence of the 9th paragraph of the STS was included in the proposed TS. The remainder of the 9th paragraph was (inadvertently) deleted from the proposed TS.

SPECIFICATION 3.7.11, CREACUS:

1) In the Bases section for Actions E.1 and E.2, the word "CREACUS" in the second line, following the word "two", of the STS was mistakenly deleted from the proposed TS for Units 2 and 3. It should be returned.

2) In the Bases section for SR 3.7.11.1, in the second paragraph, third line, the word "frequency" and the phrase "on a STAGGERED TEST BASIS" were transposed in the proposed TS.

SPECIFICATION 3.7.14, FBACS:

1) The frequency for SR 3.7.14.1 has been changed from "31 days" (in the STS) to "31 days on a STAGGERED TEST BASIS" (in the proposed TS) because it is currently staggered. Since the meaning of "on a STAGGERED TEST BASIS" has changed from the current TS to the proposed TS, this change is not appropriate.

SPECIFICATION 3.7.17, Fuel Storage Pool Boron Concentration:

1) The frequency for SR 3.7.17.1 has been changed from "7 days" (in the STS) to "30 days" (in the proposed TS) because it is currently 30 days. This is acceptable only if the frequency is changed entirely to the way it is currently. That is, the frequency must state "30 days and within 72 hours prior to any fuel movement."

SPECIFICATION 3.7.19, Secondary Specific Activity:

1) In the third paragraph of the Proposed TS, the number .13 rem should be 0.13 rem.



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SPECIFICATION 3.8.1, AC SOURCES - OPERATING:

- 1) The SR 3.8.1.1 note for the Unit 3 Technical Specification repeats the Unit 2 note rather than presenting the Unit 3 note provided in the NUREG-1432, Insert A, markup. The markup is quite clear that there are unit-specific differences between the two Technical Specifications at this point. The Unit 3 Technical Specifications should be changed to incorporate the correct information.
- 2) The licensee added to SRs 3.8.1.2 & 3, under frequency, the phrase "on a staggered test basis,." This is not per NUREG-1432 and no justification was provided. Delete this phrase.
- 3) In SR 3.8.1.6, '[Automatically]' was removed from the NUREG-1432 markup, yet appears in the Unit 2 and Unit 3 Technical Specifications. It should be removed from the Unit 2 and Unit 3 Technical Specifications.
- 4) In SR 3.8.1.9, the NUREG-1432 markup uses 681.6 kW for the load rejection. The Unit Technical Specifications use 682 kW. The existing Technical Specifications use 655.7 kW. Resolve the differences, justify any change from the existing Technical Specifications.
- 5) In SR 3.8.1.12, no justification was presented for deleting steps d and e that verify offsite power remains connected to permanently connected loads and the programmed time interval load sequence(r). Those steps should be restored to the unit Technical Specifications.
- 6) In the LCO Bases section, Bus numbers A04 (for train A) and A06 (for train B) were not carried over from the NUREG-1432 markup to the unit Technical Specification Bases. The bus numbers should be included.
- 7) In the SR 3.8.1.2 and SR 3.8.1.7 Bases, the last words of the sixth paragraph, 'if a modified start is not used, (the) 10 second start requirement of SR 3.8.1.7 applies,' was not transferred to the unit Technical Specifications. The words should be included here in the unit Technical Specifications or justification presented for their deletion.

SPECIFICATION 3.8.2, AC SOURCES - SHUTDOWN:

- 1) In the LCO Bases, the licensee deleted the last paragraph of NUREG-1432, concerning proper operation of the load sequencer, without explanation, annotation, or justification. The rationale for deleting this paragraph should be provided.

SPECIFICATION 3.8.3, DIESEL FUEL OIL, LUBE OIL, AND STARTING AIR:

- 1) In the fourth paragraph of the Background Bases, the statements -- 'Each engine oil sump contains an inventory capable of supporting a minimum of

7 days of operation' and 'The onsite storage in addition to the engine oil sump is sufficient to ensure 7 days of continuous operation' are conflicting. One should be used, the other deleted. It appears the second statement is correct. Also, the Bases for Condition B is in terms of inventory. Is that in terms of onsite storage, sump level, or both? What is the controlling document for keeping the diesel lube oil sump full?

2) In the SR 3.8.3.3.b Bases, phrases have been deleted because what appears in the NUREG is not in accordance with the licensing Basis unit Technical Specifications. Include the appropriate information that is in accordance with the licensing Basis.

#### SPECIFICATION 3.8.4, DC SOURCES OPERATING:

1) In SR 3.8.4.3, SR 3.8.4.4, and SR 3.8.4.5, the licensee changes the frequency of certain battery surveillances from the 12-months of NUREG-1432 to 24-months. The existing Technical Specifications are on a refueling basis. IEEE Standard 450 has this surveillance done on a 12-month interval as in the NUREG. The licensee should present technical justification for the extension of this surveillance interval, including any licensee controlled compensatory measures.

2) In SR 3.8.4.6, verifying the battery charger voltage at  $\geq 125/250$  V (125-Vdc at San Onofre) will not demonstrate the capability to charge a battery to  $\geq 129/258$  V (125-Vdc at San Onofre). The voltage specified needs to be replaced with the voltage necessary to maintain a fully charged battery. San Onofre should also make this change to their proposed Unit 2 and Unit 3 Technical Specifications accordingly.

3) In SR 3.8.4.7, Note 1, and SR 3.8.4.8, changing the battery performance test from a 60-month frequency to a 72-month frequency was done for convenience. "This change ensures the performance of SR (3.8.4.8) occurs on a refueling outage which matches with the expected 24-month refueling outage length." No technical basis for this extended interval was given. IEEE Standard 450 requires this test every 5 years (sixty months), or annually if signs of deterioration are noted, or less than 85 percent of the original capacity remains. The requirement to perform this test if signs of deterioration are noted, or less than 85 percent of the original capacity remains should be included in the Frequency of testing requirement.

We note that Regulatory Guide 1.129 states the interval between service tests should not exceed 18-months. Based on that, the 24-month interval for SR 3.8.4.7 is not acceptable. The existing Technical Specifications have a refueling interval. We also note that Regulatory Guide 1.129 states the service test should be performed in addition to the battery performance discharge test, not instead of it. However, that basis is included in the existing Technical Specifications.

Sound technical basis for deferring the battery performance discharge test to a 72-month interval should be supplied.

4) In SR 3.8.4.7 and SR 3.8.4.8, performing these tests in Modes 1, 2, 3, and 4 as proposed by the elimination of the NUREG Note, 'this surveillance

shall not be performed in Mode 1, 2, 3, or 4" will result in the battery under test becoming inoperable per Action A, SR 3.8.4.1, which requires a float voltage of  $\geq 129$  Vdc. Neither test can be completed and the battery recharged in less than the 2-hour completion time. No technical bases were presented for eliminating this mode restriction. The licensee should certainly NOT perform these tests in Mode 1 or 2. Testing in Mode 3 or 4 may be justifiable. However, no justification was provided. Therefore the elimination of the note is not acceptable.

#### SPECIFICATION 3.8.5, DC SOURCES-SHUTDOWN:

1) In the NUREG-1432 Bases for Required Actions A.1, A.2.1, A.2.2, A.2.3, and A.2.4, the sentence in the first paragraph that reads, "By allowing the option to declare required features inoperable with the associated DC power source(s) inoperable, ..." has been changed in the SONGS implementation of the Technical Specification to, "By allowing the option to declare inoperable required features associated with the inoperable DC power source(s), ..." No justification was presented. Revert to the NUREG version.

2) In the third paragraph of the Bases for Required Actions A.1, A.2.1, A.2.2, A.2.3, and A.2.4, the words "Sufficient DC power sources" and "minimum required DC power sources" in NUREG-1432 have been changed in the SONGS implementation of the Technical Specification to "sufficient AC vital power sources" and "minimum required AC vital power sources," respectively. No justification was provided. Revert to the NUREG version.

#### SPECIFICATION 3.8.6, BATTERY CELL PARAMETERS:

1) In Action B and SR 3.8.6.3 the NUREG-1432 and the new SONGS Technical Specifications read, "verify the average electrolyte temperature of representative cells is  $\geq 60^{\circ}\text{F}$ ." The existing Technical Specifications read "the average electrolyte temperature of ten connected cells is above  $60^{\circ}\text{F}$ ." Does the term 'representative cells' encompass 'ten connected cells?' Where does the licensee define 'representative cells' and what is the definition?

2) In SR 3.8.6.3 it specifies  $\geq 60^{\circ}\text{F}$ . The associated BASES specifies  $>60^{\circ}\text{F}$ . The existing Technical Specifications read above  $60^{\circ}\text{F}$  which would indicate that SR 3.8.6.3 should be changed to  $>60^{\circ}\text{F}$ . Resolve this inconsistency.

3) In the Bases (with respect to Table 3.8.6-1, note c), define/describe the "Stabilized Battery Charge," and "Float Current." Discuss the associated differences between the A and B batteries and the C and D batteries, since their capacities differ. Note c discusses the acceptability of using the floating current instead of actual specific gravity testing for a maximum of 7 days after a battery recharge. The BASES indicate that this is good for 7 days after a battery equalizing charge. The Bases is in agreement with IEEE Standard 450-1987, if the battery charger is a voltage regulated charger. The submittal does not give that detail. The existing Technical Specifications do not have this note. Therefore, it appears that this technically less restrictive note has not been justified. The licensee should provide that justification. With that justification, the note should be

revised to "battery equalizing charge" instead of "battery recharge."

SPECIFICATION 3.8.7, INVERTERS - OPERATING:

1) The note associated with the LCO allows a single inverter to be disconnected from its DC bus for  $\leq 24$  hours for an equalizing charge under two conditions. We note that:

- a. IEEE Std 450-1987 states that an equalizing charge takes between 35 and 70 hours.
- b. Appendix D4, "Equalizing Charge," of that same standard states that "it is more often convenient to apply the equalizing charge to the individual cells" during normal float operation of the battery.

We also note the BASES allows an inverter input of up to 140-Vdc at San Onofre.

Therefore, there may be no need for this note if:

- a. the licensee can apply an equalizing charge to individual cells, or
- b. the equalizing charge voltage for the entire battery is  $< 140$ -Vdc (at San Onofre).

The licensee should verify that the note is necessary. The licensee should verify, and document in the BASES, that 24 hours is adequate for an equalizing charge. If it is not, other provisions will have to be made to accommodate such an action. Generically, the note should be bracketed. Neither LCO 3.8.4 nor LCO 3.8.6 imposes an equalizing charge by name. Where is an equalizing charge defined and required, and what is its voltage?

SPECIFICATION 3.8.8, INVERTERS - SHUTDOWN:

1) The LCO states "inverters shall be OPERABLE." The BASES states "OPERABILITY of at least two of the four inverters and associated vital buses is required." The licensee should review this difference and determine if the LCO should be revised to more accurately reflect safety requirements. It appears that it should be revised.

2) Under Actions, the licensee deleted "it is further required to immediately initiate action to restore the required inverters and to continue this action until restoration is accomplished in order to provide the necessary inverter power to the unit safety system" from NUREG-1432, citing redundancy to the following paragraph.

The third paragraph (the following paragraph referred to in the above comment) addresses the initiation of action "to restore the minimum required AC vital power sources," not inverters. The minimum required AC vital power sources are two inverters, not four. It appears to have some confusion if the sentence addressing inverters is omitted. The licensee should clarify what AC vital power sources are to be restored.

SPECIFICATION 3.8.9, DISTRIBUTION SYSTEMS - OPERATING:

i) In the LCO Bases section the wording 'motor control center and distribution panels were struck out in the NUREG-1432 markup, yet appear in the unit Technical Specifications (change 5.c). The licensee should re-evaluate this deleted material.

2) The second Completion Times for each of the Required Actions, and the associated Bases sections, should not be deleted.

COMMENTS ON SCE STS SUBMITTAL  
FOR SAN ONOFRE 2 & 3

SPECIFICATION 3.9.1, Boron Concentration:

1) In the Background section of the Bases, the words "into the open reactor vessel by gravity feeding or by the use of the shutdown cooling (SDC) system pumps" have been deleted, and not added elsewhere, without sufficient justification.

SPECIFICATION 3.9.2, Nuclear Instrumentation:

1) In the Applicability section of the Bases, reference has been changed to LCO 3.3.13, "Source Range Monitors," from LCO 3.3.2, "RPS Instrumentation-Shutdown," which has been deleted. Wouldn't it be more appropriate to reference both LCOs?

SPECIFICATION 3.9.3, Containment Penetrations:

1) In the Bases Reference section, Reference 1 has been deleted because SONGS does not use that safety analysis (justification 13). Why not? What does SONGS use in its place?

2) It is noted that SONGS has not committed to NUREG-800, performing a Fuel Handling Analysis (justification 16). Why not? NUREG-800 is referenced in the Bases for 3.9.6.

3) To adopt the BG&E change to allow both air lock doors open when performing Core Alts or fuel movements, a plant specific analysis regarding offsite dose rates needs to be conducted, to ensure compliance with 10CFR100 limits.

SPECIFICATIONS 3.9.4 AND 3.9.5, SDC and Coolant Circulation - High/Low:

1) It is not necessary to include the note pertaining to using a spray pump instead of an LP pump. Operability is defined in the Bases (and per Safety Function Determination Program).

2) It is not necessary to specify flow rate in SR 3.9.5.1. Flow rate must satisfy GDC and safety analysis requirements. It can appear in the procedures to perform the SR.

SPECIFICATION 3.9.6, Refueling Water Level:

1) Required Action A.3, to restore water level, has been deleted, since if A.1 and A.2 are performed the plant will be outside the applicability of the LCO. The importance of restoring water level is such that rather than deleting A.3, perhaps it should be made A.1. A.3 was intentionally included because of its importance, though everyone should be aware of it.



RESOLUTION OF COMMENTS TO SCE STS SUBMITTAL  
FOR SAN ONOFRE 2 & 3

Enclosure 4

SECTION 1.1, DEFINITIONS:

R<sup>1</sup> 1) Definition for controlled leakage is to be removed from the SCE STS. It is unnecessary.

SECTION 2, SAFETY LIMITS:

R 1) Use STS wording, with parentheses clarification that it applies to both MODES 1 & 2.

SECTION 3, LCO APPLICABILITY:

R 1) Editorial, numbering will be corrected in final draft.

SECTION 4, DESIGN FEATURES:

R 1) Composition and chemical formula of rods is to be included (draft rewrite has been submitted and approved).

R<sub>c</sub> 2) Non-specific referencing of LCS is satisfactory, for flexibility in revising LCS.

SECTION 5, ADMINISTRATIVE CONTROLS:

R 1) Revert to wording in the NUREG.

\* 2) (To be appealed) - watchstanding requirements.

R<sub>c</sub> 3) Licensee wording discretion.

R 4) Program to be returned to Admin Controls section.

R 5) ITP Program to be returned to Admin Controls section.

R 6) The Steam Generator Tube Surveillance Program is to be returned to the Admin Controls section.

R 7) The generic example is to be returned to section 5.6.3 of the Safety Function Determination Program.

R 8) Topical reports related to the COLR to be listed.

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<sup>1</sup> R = issue resolved, action or review required  
R<sub>c</sub> = issue resolved and complete  
\* = SCE to appeal issue

R 9) Topical reports related to the PTLR to be listed.

R 10) The "High Radiation Area" section of the Admin Controls section to be retained.



RESOLUTION OF COMMENTS TO SCE STS SUBMITTAL  
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SPECIFICATION 3.1.1,  $SDM-T_{avg} > 200^{\circ}$ :

- R<sub>c</sub> 1) Percentage SDM required by LCO is sufficient to cover the situation of the highest worth rod stuck out.
- R 2) Boration example to be retained in Action A.1 Bases.

SPECIFICATION 3.1.2,  $SDM-T_{avg} < 200^{\circ}$ :

- R 1) The new Surveillance Requirement is to be justified and addressed in the Bases.

SPECIFICATION 3.1.3, Reactivity Balance:

- R 1) The frequency and note to the Surveillance Requirement are to be changed per SCE submittal, due to the inaccuracy of the SR at low power levels (a generic traveler to be submitted).
- R<sub>c</sub> 2) The word "prediction" is to be substituted for "indication" in the BASES Background section (Licensee discretion).
- R<sub>c</sub> 3) Non-specific LCS references are satisfactory for flexibility in changing LCS.

SPECIFICATION 3.1.4, MTC:

- R 1) The revisions to SR 3.1.4.2, after discussions with SRXB, were found satisfactory.
- R 2) The last two sentences of the Background section of the BASES will not be changed as indicated (regarding Temperature-Reactivity changes). The STS NUREG is correct.
- R 3) Changes 8 and 10 restored to STS NUREG wording. Changes 11, 12 and 13 are revised.

SPECIFICATION 3.1.5, CEA Alignment:

- R 1) The parenthetical phrase in the LCO on 2 of 3 indications will be deleted.
- R<sub>c</sub> 2) Reference to LCS is appropriate.
- R 3) Delete unnecessary Condition statement.
- R 4) Change justifications to be provided.

SPECIFICATION 3.1.8, CEA Insertion Limits:

R 1) Required Action A.2 will revert to the STS version.

SPECIFICATION 3.1.9, BORATION SYSTEMS-OPERATING:

R 1) The Bases are to be (re)written, meeting the STS format and content requirements.

R<sub>c</sub> 2) Completion Times for Condition C are satisfactory for this situation.

SPECIFICATIONS 3.1.10 AND 3.1.11, BORATION SOURCES AND SYSTEMS, SHUTDOWN:

R 1) These two specifications are to be combined.

R 2) OPERABILITY is to be defined in the Bases.

R 3) The Bases are to be (re)written, meeting the STS format and content requirements.

SPECIFICATIONS 3.1.12 STE MODES 2 & 3, AND 3.1.13 STE MODE 1:

R 1) Changes discussed with SRXB, justifications provided.

R 2) Bases to be elaborated.

R 3) Wording consistency achieved.

R 4) Bases acceptable.

R - 5) Required Actions rewritten.

SPECIFICATION 3.2.1, LHR:

R<sub>c</sub> 1) The word "all" will be used, per Licensee discretion.

SPECIFICATION 3.2.2, F<sub>xy</sub>:

R<sub>c</sub> 1) "Less than or equal to" is universally accepted and will be used.

R 2) Conditions and Required Actions rewritten.

R 3) The frequency change SR 3.2.2.1 from "> 70% RTP" to "> 85% RTP" is satisfactory, after discussions with SRXB.

SPECIFICATION 3.2.3,  $T_q$ :

- R 1) Note incorporated into required action.
- R<sub>c</sub> 2) " $T_q$  exceeds" is accurate
- R 3) " $T_q < 0.10$ " is correct.

SPECIFICATION 3.2.4, DNBR:

- R<sub>c</sub> 1) Non-specific references to COLR are satisfactory to allow for flexibility in changing COLR.

RESOLUTION OF COMMENTS TO SCE STS SUBMITTAL  
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SPECIFICATION 3.3.1, RPS INSTRUMENTATION-OPERATING:

- R<sub>c</sub> 1) Justification provided for relocation of LOSS OF LOAD and STEAM GENERATOR HIGH trips to LCS. Relocation is acceptable because trips are for equipment protection and not required by safety analysis. Trips do not meet IEEE standard as identified by chapter 7.2 of SER (SER NUREG-0712 of February 1981, and IEEE Std 279-1971). No credit is taken for the trips in the FSAR.
- R 2) Comment is accepted. SR 3.3.1.5 frequency is 31 days.
- 3) Copy of Pickard, Lowe, and Garrick, Inc., evaluation changing SR 3.3.1.6 frequency to 92-days has been provided, and will be evaluate.
- R 4) Table to be corrected.
- R<sub>c</sub> 5) SCE submittal is correct.
- R 6) Footnote d is to be included in the SCE STS, per comment.
- 7) Table 3.3.1-2 not in STS and is to be placed in LCS. Still, question is still applicable, the table does not include logarithmic power level - high, pressurizer pressure - low, or reactor coolant flow - low, why are these trips not included?
- R 8) References to be reviewed and corrected, editorial.
- R 9) Editorial, to be corrected.
- R 10) Bases to be elaborated.
- R<sub>c</sub> 11) The two line item events not included the Safety Analysis for DNBR trips, and can be deleted.
- R 12) Editorial, to be corrected.
- R 13) Editorial, to be corrected.
- R 14) Editorial, to be corrected.
- R<sub>c</sub> 15) Information on the bistable setpoints is found in the program of Current Operating Procedures. The paragraphs are not necessary.
- R<sub>c</sub> 16) Information on the bistable setpoints is found in the program of Current Operating Procedures. The paragraphs are not necessary.
- R 17) The frequency change from the NUREG STS from 18 to 24 months is per the existing TS and was justified when the change in refueling cycle was approved.
- R 18) Editorial, to be corrected.

SPECIFICATION 3.3.2, RPS INSTRUMENTATION-SHUTDOWN:

R<sub>c</sub> 1) Information on the bistable setpoints is found in the program of Current Operating Procedures. The paragraphs are not necessary.

R<sub>c</sub> 2) Information on the bistable setpoints is found in the program of Current Operating Procedures. The paragraphs are not necessary.

SPECIFICATION 3.3.3, CEACs:

1) [open - SCE will confirm with their engineers that the Condition C completion time should read, "12 hours and once per 12 hours until high temperature alarm is cleared."] Channel functional test will be specified (SR 3.3.3.3). The Condition C action is correct in that it refers only to cabinets B & C, because the CEACs reside only in cabinets B & C.

R<sub>c</sub> 2) SRs 3.3.3.3 and 3.3.3.5 are different, as noted in the Bases. Where referenced, the specific SR will be noted (as in previous comment).

R 3) The ASI statement in the Bases will be deleted, per comment.

R<sub>c</sub> 4) Information on the bistable setpoints is found in the program of Current Operating Procedures. The paragraphs are not necessary.

R 5) Editorial, to be corrected.

SPECIFICATION 3.3.4, RPS LOGIC AND TRIP INITIATION:

R 1) SR 3.3.4.1 will be divided into two separate SRs. The Reactor Trip Circuit Breaker SR frequency is 31 days and the RPS SR frequency is 92 days, per existing TS.

R 2) Editorial, to be corrected.

R 3) References to be reviewed and corrected, editorial.

SPECIFICATION 3.3.5, ESFAS INSTRUMENTATION:

R 1) Table 3.3.5-2 not in STS NUREG and is to be placed in SCE LCS. In addition, it is not referenced in LCO, so it need not be addressed in Bases.

R 2) References to be reviewed and corrected, editorial.

R 3) Bases to be corrected and made plant specific.

R 4) Editorial, to be corrected.

R 5) Editorial, to be corrected.

R 6) Bases to be corrected.

SPECIFICATION 3.3.6, ESFAS LOGIC AND MANUAL TRIP:

- R 1) Bases to be corrected.
- R 2) Bases to be corrected.
- R 3) Bases to be corrected.

SPECIFICATION 3.3.7, DG-UNDERVOLTAGE START:

- R 1) Editorial, to be corrected.
- R 2) Bases to be corrected.
- R<sub>c</sub> 3) The INC procedures for trip & calcs reference specific engineering calculations and documents, and they need not be referenced in the Bases.
- R<sub>c</sub> 4) Deletion of detail contained in Bases paragraphs is per Licensee discretion.

SPECIFICATION 3.3.8, CPIS:

- R<sub>c</sub> 1) The INC procedures for trip & calcs reference specific engineering calculations and documents, and they need not be referenced in the Bases.
- R<sub>c</sub> 2) The INC procedures for trip & calcs reference specific engineering calculations and documents, and they need not be referenced in the Bases.
- R 3) References to be reviewed and corrected, editorial.

SPECIFICATION 3.3.9, CRIS:

- R 1) "Allowable Value" shall be deleted, "Setpoint" retained.
- R<sub>c</sub> 2) The INC procedures for trip & calcs reference specific engineering calculations and documents, and they need not be referenced in the Bases.
- R 3) Justification to be provided for deletion.
- R 4) Reference to be provided.

SPECIFICATION 3.3.10, FHIS:

- R 1) Response time test of FHIS not in current TS, it is not credited in the Safety Analysis.

SPECIFICATION 3.3.11, PAMI:

- R 1) Editorial, to be corrected.



- R<sub>c</sub> 2) On Table 3.3.11-1, Function 18 (AFW Flow), the REQUIRED CHANNELS is 'one per steam generator' as per existing TS.
- R 3) Bases to be elaborated.
- R<sub>c</sub> 4) Instrumentation is described in the EOIs and need not be described in the Bases.
- R 5) Bases to be elaborated.
- R 6) Editorial, to be corrected.
- R 7) Editorial, to be corrected.
- R 8) Bases to be elaborated.
- R<sub>c</sub> 9) Instrumentation is not redundant per steam generator.
- R 10) Bases to be elaborated. Information to be restored to Bases and thermocouple pairings are to be identified.
- R 11) Bases to be provided for SR 3.3.11.3.
- R 12) The SR 3.3.11.4 frequency change from the NUREG STS from 18 to 24 months is per the existing TS and was justified when the change in refueling cycle was approved.
- R 13) Reference to be provided.
- R 14) Editorial, to be corrected (CIV is correct acronym).

SPECIFICATION 3.3.12, REMOTE SHUTDOWN SYSTEM:

- R<sub>c</sub> - 1) Instrumentation is not required for remote shutdown (per J.L. Rainsberry letter of March 1, 1993 on "Identification and Evaluation of the Instruments Required for Shutdown Outside the Control Room").
- R<sub>c</sub> 2) Controls not specified or required in current TS (see reference in previous comment).
- R 3) Reference to be provided or its deletion justified.
- R<sub>c</sub> 4) Controls not specified or required in current TS (see reference in previous comment).

SPECIFICATION 3.3.13, SR MONITORING CHANNELS:

- R 1) Editorial, to be corrected.
- R 2) Editorial, to be corrected.

RESOLUTION OF COMMENTS TO SCE STS SUBMITTAL  
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SPECIFICATION 3.4.1, RCS Pressure, Temperature, and Flow Limits:

\* 1) {To be appealed} - NRC rejects proposal. SCE has approved Safety Analysis Methodology, in which the flow rate is an input assumption, that they believe should permit them to revise their minimum flow if necessary and place flow rate values into the COLR. Flow rate is not cycle specific, and there is no need for it to be relocated outside of TS.

R 2) The change is to be incorporated into SCE 2 & 3 TS and is to be discussed in Bases.

R<sub>c</sub> 3) The deletion of SR 3.4.1.4 and associated Bases, is due to its redundancy with SR requirements in 3.3.1 (see Table 3.3.1-1) and SR 3.3.1.5, and is acceptable.

R 4) The titles for LCOs 3.4.1 or 3.4.3 are to be renamed, similar to their names in the STS NUREG.

SPECIFICATION 3.4.2, RCS Minimum Temperature for Criticality:

R<sub>c</sub> 1) References to T-average have been replaced with cold leg temperature because safety analysis is done with T<sub>c</sub>, and reference to T<sub>c</sub> is more conservative at > 0% power, and is consistent with safety analysis at 0% power.

R<sub>c</sub> 2) Applicability statement made consistent with revised LCO statement.

3) NRC rejects proposed change. Generic issue that needs to be addressed with OGs if SCE wishes to pursue.

SPECIFICATION 3.4.3.1, Pressurizer Heatup and Cooldown Limits:

R 1) Bases is to be enhanced.

SPECIFICATION 3.4.6, RCS Loops - Mode 4:

R 1) Bases is to be enhanced, LTOP enable temperature changes with every PTLR change.

SPECIFICATION 3.4.7, RCS Loops - Mode 5, Loops Filled:

R 1) Bases is to be enhanced, LTOP enable temperature changes with every PTLR change.

R<sub>c</sub> 2) DCP 2-6863, approved in 1993, permits SONGS to use a containment spray pump in place of a low pressure safety injection pump if the reactor has

been subcritical for 24 hours and the RCS is fully depressurized and vented (Note 5 is acceptable).

R<sub>c</sub> 3) Leave as is, licensee discretion.

R<sub>c</sub> 4) Required Action A has been reworded. The logic is acceptable, in that Operability is required by LCO statement and Required Action A.

SPECIFICATION 3.4.9, Pressurizer:

R 1) Discussion of heater capacity to be included in Bases.

SPECIFICATIONS 3.4.12.1 and 3.4.12.2, LTOP System:

R 1) Conservative assumption to be addressed in the Bases.

R 2) Note to be added clarifying frequency.

R<sub>c</sub> 3) Licensee believes wording is explicit, and will be retained.

R 4) The Bases section on Applicable Safety Analysis will be clarified.

SPECIFICATION 3.4.13, RCS Operational Leakage:

R<sub>c</sub> 1) Frequency note is present in existing TS, and is acceptable.

SPECIFICATION 3.4.14, RCS PIV Leakage:

R<sub>c</sub> 1) Licensee prefers to retain table in TS.

R 2) The Background section of the Bases will be modified.

SPECIFICATION 3.4.15, Leakage Detection Instrumentation:

R 1) NRC rejected elimination of Required Action A.1, which will be retained.

R<sub>c</sub> 2) SR Frequency extension per NUREG-1366.

R 3) Bases to be corrected and Condition C addressed.

SPECIFICATION 3.4.16, RCS Specific Activity:

R<sub>c</sub> 1) An LCO 3.0.4 exception is appropriate, in that an RCS Specific Activity is only accurate when at power.

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SPECIFICATION 3.5.1, SAFETY INJECTION TANKS:

- R<sub>c</sub> 1) Vent valve requirements relocated to LCS.
- R<sub>c</sub> 2) Calculation addressed in procedure S0123-III-1.1.23.

SPECIFICATION 3.5.2, ECCS-OPERATING:

- R 1) Editorial, to be corrected.
- R 2) Bases to be elaborated (proposal submitted and accepted).

SPECIFICATION 3.5.3, ECCS-SHUTDOWN:

- R 1) Bases and references to be corrected.

SPECIFICATION 3.5.5, TSP:

- R<sub>c</sub> 1) The SR 3.5.5.1 and SR 3.5.5.2 Frequencies are currently 24 months, justified previously when change was made to 24 month cycle.

RESOLUTION OF COMMENTS TO SCE STS SUBMITTAL  
FOR SAN ONOFRE 2 & 3

SPECIFICATION 3.6.1, CONTAINMENT:

- R 1) Editorial, to be corrected.
- R 2) References to be reviewed and corrected, editorial.

SPECIFICATION 3.6.2, CONTAINMENT AIR LOCKS:

- R 1) Use of "provisions of LCO 3.0.4 are not applicable" has been changed to "provisions of SR 3.0.4 . . . .," prior to SRs. Applicability of LCO is in MODES 1 to 4, and it is impracticable to perform air lock leak rate tests prior to entry into MODE 4.
- R<sub>c</sub> 2) Editorial/wording at the discretion of the licensee.
- R 3) Editorial, to be corrected.
- R 4) Editorial, to be corrected.
- R 5) References to be reviewed and corrected, editorial.

SPECIFICATION 3.6.3, CONTAINMENT ISOLATION VALVES:

- R 1) Editorial, to be corrected.
- R 2) Use of "provisions of LCO 3.0.4 are not applicable" has been changed to "provisions of SR 3.0.4 . . . .," prior to SRs. Applicability of LCO is in MODES 1 to 4, and it is impracticable to perform isolation valve leak rate tests other SRs prior to entry into MODE 4.
- R 3) Bases to be elaborated.

SPECIFICATION 3.6.4, CONTAINMENT PRESSURE:

- R 1) Editorial, to be corrected.
- R 2) Editorial, to be corrected.

SPECIFICATION 3.6.6.1, CONTAINMENT SPRAY AND COOLING SYSTEMS:

- \* 1) Generic issue, to be addressed with OGs and appealed. SCE believes that the two part completion times, to prevent extensive Condition entries (due to "flip-flops), are confusing to the operator.
- R 2) Editorial, to be corrected.

R 3) References to be reviewed and corrected, editorial.

SPECIFICATION 3.6.6.2, CONTAINMENT COOLING SYSTEM:

R 1) References to be reviewed and corrected, editorial.

SPECIFICATION 3.6.7, HYDROGEN RECOMBINERS:

R<sub>c</sub> 1) Current SO TS have exemption from LCO 3.0.4.



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FOR SAN ONOFRE 2 & 3

SPECIFICATION 3.7.1, MSSVs:

\* 1) {To be appealed} - The use of SAVOR needs to be justified and methodology approved (methodology for determining the safety valve setpoints (lift and trip) and the number of safety valves required per operating power level needs to be submitted for review). Even with an approved methodology it is not clear that the related information is appropriate for relocation to a report outside of Technical Specifications. Note - OGs have concurred and generic traveler to be prepared.

R 2) Required Action A.2, reducing overpower trip setpoints, is to be retained, per STS.

R<sub>c</sub> 3) Change is editorial IAW table 3.7.1-1 and acceptable.

R<sub>c</sub> 4) Revised MSSV tolerances approved (PCN-329). Similar to approved Palo Verde Amendment numbers 75, 61 and 47 for units 1, 2, and 3 respectively.

R 5) Editorial, to be corrected.

R 6) Bases to be elaborated and corrected.

SPECIFICATION 3.7.2, MSIVs:

R 1) Paragraph to be retained per licensee discretion (compliance clarification).

R 2) Editorial, to be corrected.

SPECIFICATION 3.7.3, MFIVs:

1) {open} - PRA data and design clarification have been submitted and are to be reviewed. Existing TS do not contain this specification.

R 2) Editorial, to be corrected.

SPECIFICATION 3.7.4, ADVs:

R 1) Bases to be elaborated and information of SR 3.7.4.2 frequency to be included.

SPECIFICATION 3.7.5, AFW System:

R 1) Change to LCO previously submitted and agreed to by SPLB. Note: SO plants have two 100% motor driven AFW pumps and one 100% turbine driven AFW pump, which can feed either SG.

\* 2) {To be appealed} - generic issue, to be addressed with OGs and appealed, similar to 3.6.6.1(1) above.

R 3) Editorial, to be corrected.

R 4) Editorial, to be corrected.

R<sub>c</sub> 5) Frequency changes from 24 to 72 hours for SRs 3.7.5.2, 3.7.5.3, and 3.7.5.4 are based upon the fact that existing TS have an SR 3.0.4 (4.0.4) exception which the STS does not, and combined with the 72 hour completion time, effectively results in a 72 frequency.

#### SPECIFICATION 3.7.6, CST:

R 1) Required Action B.2 Completion Time of 18 hours is to be retained (to allow for orderly progression to lower MODES), per STS.

R 2) Changing tank levels to percent is acceptable, provided that percent - gallons equivalence is provided in the Bases.

R 3) Condition to be corrected.

#### SPECIFICATION 3.7.10, ECW System:

R 1) Bases to be clarified.

R 2) Deleted paragraph to be restored.

#### SPECIFICATION 3.7.11, CREACUS:

R 1) Editorial, to be corrected.

R 2) Editorial, to be corrected.

#### SPECIFICATION 3.7.14, FBACS:

R 1) SR 3.7.14.1 frequency to remain as it is in STS.

#### SPECIFICATION 3.7.17, Fuel Storage Pool Boron Concentration:

R 1) The SO Existing TS frequency for SR 3.7.17.1 is to be retained; "30 Days and within 72 hours prior to fuel movement."

#### SPECIFICATION 3.7.19, Secondary Specific Activity:

R 1) Editorial, to be corrected.

RESOLUTION OF COMMENTS TO SCE STS SUBMITTAL  
FOR SAN ONOFRE 2 & 3

SPECIFICATION 3.8.1, AC SOURCES - OPERATING:

- R 1) The SR 3.8.1.1 note for the Unit 3 Technical Specification shall be corrected and made unit specific.
- R 2) The frequency for SRs 3.8.1.2 & 3, is to revert to the STS NUREG version. Under frequency, the phrase "on a staggered test basis," will be deleted due to the change in definition of "staggered test basis."
- R 3) In SR 3.8.1.6, '[Automatically]' will be removed from the Unit 2 and Unit 3 Technical Specifications.
- R 4) In SR 3.8.1.9, 682 kW will be used for load rejection, and the Bases will be updated.
- 5) {open, under review by EELB} - In SR 3.8.1.12, RG 1.93 and existing TS do not require verification that offsite power remains connected to permanently connected loads.
- R 6) In the LCO Bases section, Bus numbers A04 (for train A) and A06 (for train B) will be included in the unit Technical Specification Bases.
- R 7) In the SR 3.8.1.2 and SR 3.8.1.7 Bases, the last words of the sixth paragraph can be deleted because a modified start is not used.

SPECIFICATION 3.8.2, AC SOURCES - SHUTDOWN:

- R 1) SONGS does not use load sequencers, but rather uses a Program Load Sequence relying on relay timers. Bases to be elaborated.

SPECIFICATION 3.8.3, DIESEL FUEL OIL, LUBE OIL, AND STARTING AIR:

- R 1) The Bases will be clarified ('The onsite storage in addition to the engine oil sump is sufficient to ensure 7 days of continuous operation' is correct).
- R 2) The SR 3.8.3.3.b Bases will have appropriate information added.

SPECIFICATION 3.8.4, DC SOURCES OPERATING:

- R 1) NRC staff to review PCNs (licensee submitted PCNs, which were approved in 1989, changing refueling SRs to 24 months (from 18 months)).
- R 2) SR 3.8.4.3 will be changed to verifying the battery charger voltage at  $\geq 129/258$  V.

3) (open, under review by EELB) SR 3.8.4.8 and SR 3.8.4.7 Note 1. The frequency for SR 3.8.4.8 will remain 60 months. The SR 3.8.4.7 Note 1 permits a modified performance test discharge test to be performed in lieu of a service test every 60 months. SCE would like the note to read every 48 months. This would permit the alternating of SR 3.8.4.7 and 3.8.4.8 every refueling outage. If it remains 60 months the effect would be that once every third refueling outage both SRs would have to be performed. EELB agreed that the voltages checked in the Modified Performance Test Discharge referred to in the SR 3.8.4.7 Note can be checked over the first 30 minutes of the test for compliance with the Service Test Requirements.

R 4) In SR 3.8.4.7 and SR 3.8.4.8, the deleted note will be returned.

#### SPECIFICATION 3.8.5, DC SOURCES-SHUTDOWN:

R 1) The STS wording will be used.

R 2) The STS wording will be used.

#### SPECIFICATION 3.8.6, BATTERY CELL PARAMETERS:

R 1) The Bases will be clarified.

R 2) In SR 3.8.6.3, >60°F will be used consistently.

R 3) The Bases (with respect to Table 3.8.6-1, note c) will be updated and corrected.

#### SPECIFICATION 3.8.7, INVERTERS - OPERATING:

R 1) The note will be deleted.

#### SPECIFICATION 3.8.8, INVERTERS - SHUTDOWN:

R 1) The Bases specifies that the OPERABILITY of 2 of 4 inverters is sufficient to meet the LCO, which merely states "Inverter shall be Operable ...". The LCO will be rewritten to specify "Required inverters."

R 2) The deleted words will be restored.

#### SPECIFICATION 3.8.9, DISTRIBUTION SYSTEMS - OPERATING:

R<sub>c</sub> 1) Material will remain deleted from LCO Bases.

\* 2) (To be appealed) - generic issue, to be addressed with OGs and appealed, similar to 3.6.6.1(1) above.

RESOLUTION OF COMMENTS TO SCE STS SUBMITTAL  
FOR SAN ONOFRE 2 & 3

SPECIFICATION 3.9.1, Boron Concentration:

R<sub>c</sub> 1) Licensee does not wish to specify all possible paths, since gravity feed is not credited in the safety analysis.

SPECIFICATION 3.9.2, Nuclear Instrumentation:

R<sub>c</sub> 1) The Applicability section of the Bases, the reference has been changed to LCO 3.3.13, "Source Range Monitors," from LCO 3.3.2, "RPS Instrumentation-Shutdown," which is correct.

SPECIFICATION 3.9.3, Containment Penetrations:

R 1) References will be updated to reflect correct safety analysis.

R 2) NR-800 was issued after SONGS 2 & 3 were licensed. Correct reference is SER NR-712.

R 3) Engineering analysis to be provided.

SPECIFICATIONS 3.9.4 AND 3.9.5, SDC and Coolant Circulation - High/Low:

R<sub>c</sub> 1) Licensee prefers to include note, to avoid potential operator confusion.

R<sub>c</sub> 2) Licensee prefers to retain flow rate to avoid confusion.

SPECIFICATION 3.9.6, Refueling Water Level:

R<sub>c</sub> 1) Action A.3 can be deleted, correcting situation is always an option.

SAN ONOFRE IMPROVED TECHNICAL SPECIFICATIONS  
LICENSE AMENDMENT REVIEW SCHEDULE

LEAD REVIEWER	TS SECTION	I	II	III	IV	V	VI	VII	VIII	IX	X	XI
Tjader	1	2/17/94x	2/11/94x	2/25/94x	5/24/94x	6/16/94	7/15/94	8/19/94	9/2/94	9/30/94	11/30/94	180
Tjader	2	2/17/94x	2/11/94x	2/25/94x	5/24/94x	6/16/94	7/15/94	8/19/94	9/2/94	9/30/94	11/30/94	180
Tjader	3.0	2/17/94x	2/11/94x	2/25/94x	5/24/94x	6/16/94	7/15/94	8/19/94	9/2/94	9/30/94	11/30/94	180
Tjader	3.1	3/4/94x	3/15/94x	3/21/94x	5/24/94x	6/16/94	7/15/94	8/19/94	9/2/94	9/30/94	11/30/94	180
Tjader	3.2	2/25/94x	3/15/94x	3/21/94x	5/24/94x	6/16/94	7/15/94	8/19/94	9/2/94	9/30/94	11/30/94	180
Udy	3.3	3/18/94x	4/18/94x	4/25/94x	5/24/94x	6/16/94	7/15/94	8/19/94	9/2/94	9/30/94	11/30/94	180
Bryant	3.4	3/4/94x	3/22/94x	4/8/94x	5/24/94x	6/16/94	7/15/94	8/19/94	9/2/94	9/30/94	11/30/94	180
Bryant	3.5	3/23/94x	4/8/94x	4/25/94x	5/24/94x	6/16/94	7/15/94	8/19/94	9/2/94	9/30/94	11/30/94	180
Barnes	3.6	3/11/94x	3/30/94x	5/3/94x	5/25/94x	6/16/94	7/15/94	8/19/94	9/2/94	9/30/94	11/30/94	180
Garner	3.7	4/11/94	5/13/94x	5/18/94x	5/25/94x	6/16/94	7/15/94	8/19/94	9/2/94	9/30/94	11/30/94	180
Udy	3.8	3/4/94x	3/17/94x	4/8/94x	5/25/94x	6/16/94	7/15/94	8/19/94	9/2/94	9/30/94	11/30/94	180
Tjader	3.9	3/16/94x	3/25/94x	4/8/94x	5/25/94x	6/16/94	7/15/94	8/19/94	9/2/94	9/30/94	11/30/94	180
Tjader	4.0	2/17/94x	2/11/94x	2/25/94x	5/24/94x	6/16/94	7/15/94	8/19/94	9/2/94	9/30/94	11/30/94	180
Tjader	5.0	2/17/94x	2/11/94x	2/25/94x	5/24/94x	6/16/94	7/15/94	8/19/94	9/2/94	9/30/94	11/30/94	180

(x = completed)