



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

March 17, 2000

MEMORANDUM TO: John A. Zwolinski, Director
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: Suzanne C. Black, Deputy Director *Suzanne C. Black*
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF MEETING HELD ON FEBRUARY 17, 2000, BETWEEN
NRC STAFF AND INDUSTRY LICENSING ACTION TASK FORCE

Members of the staff of the U. S. Nuclear Regulatory Commission (NRC) hosted a meeting with representatives of the Nuclear Energy Institute (NEI) and licensees comprising the Licensing Action Task Force (LATF) on February 17, 2000, at NRC Headquarters in Rockville, Maryland. This meeting was open to the public. A list of attendees is provided as enclosure 1. An agenda of the meeting provided by the LATF is included as enclosure 2. Enclosure 3 contains documents distributed to LATF members to illustrate the NRC-proposed initiative to standardize licensee submittals. Enclosure 4 is a draft version of a flow chart illustrating a proposed process for effecting consolidated line item improvements to technical specifications (TSs). Enclosure 5 is NRC's response to the LATF's letter dated November 1, 1999, regarding Office Letter (OL) 1201, "Control of Task Interface Agreements (TIAs)," and NRC feedback regarding NEI's November 1, 1999, letter addressing the use of precedent in licensing actions.

Topics discussed included the industry LATF's plan for pursuing an improved process for unintended TS Changes, the standardization of licensing submittals, the consolidated line item improvement process, the industry LATF's recommendation for the processing of changes to TS bases, the status of industry effort regarding licensing submittals other than license amendments, and the future plans of the NRC/LATF. The industry LATF distributed enclosure 2 regarding the proposed agenda of the meeting. A summary of the discussions is provided below:

1. UNINTENDED TECHNICAL SPECIFICATION CHANGES:

A. Discussion Summary

As discussed in the LATF meeting held on December 1, 1999, the NRC Office of the General Counsel (OGC) stated that the process as proposed did not meet the requirements of the Atomic Energy Act and, therefore, was unacceptable. The OGC offered specific written comments which were distributed to the industry LATF and documented in the meeting summary dated December 30, 1999.

The industry LATF stated that they have reviewed OGC's comments and still wish to pursue an improved process for handling unintended TS changes. The industry LATF plans to forward a position paper to the NRC that will provide their recommendations for resolution of the issue. The position paper will contain specific legal arguments

addressing OGC's concerns as well as suggested modifications to the Sequoyah amendment (this amendment was chosen as a pilot to test the proposed process). The industry LATF stated that they will forward the position paper to the NRC in March 2000 and that they would like to meet and discuss it with the appropriate NRC personnel. The industry LATF will contact the NRC prior to forwarding the position paper.

The industry LATF requested any recommendations from OGC with respect to this issue. OGC stated that one of their previous recommendations was to pursue possible changes to the Notice of Enforcement Discretion policy.

2. STANDARDIZATION OF LICENSING SUBMITTALS:

A. Discussion Summary

The NRC presented a preliminary method to standardize the format and content of licensing submittals with the goals of enhancing the quality of incoming submittals and improving the NRC process utilized in producing a safety evaluation (SE). The intent is to provide clear and concise guidance to industry regarding the information that the NRC requires to make a regulatory finding. Emphasis would be placed on the licensee providing information regarding the change requested, the reason for undertaking the change, their current licensing basis, the applicable regulatory requirements, and finally, how the change meets these regulatory requirements. This standardization should also minimize requests for additional information.

To demonstrate the changes in the format and content of licensing submittals and SEs that this standardization would produce, an already-approved license amendment SE and its associated amendment request (submittal) were compared to that which would be required and produced following the new guidance. These documents were distributed as enclosure 3.

Industry members of the LATF stated that licensees would benefit from changes that would result in less time or effort in producing the submittal. Reducing the amount of information required would probably achieve a reduction in these resources. Cost savings would be a motivating factor in getting licensee "buy-in" for a new process.

The OGC expressed a desire to observe the conduct of and the products resulting from this revised process prior to making a judgment upon the acceptability of the proposed process. OGC encouraged proceeding cautiously when dealing with content changes to SEs because an SE serves the purpose of explaining to the public the safety and regulatory basis of the change.

Industry members of the LATF stated that they will discuss the idea with other members of the industry.

NRC members of the LATF stated that NRC management is interested in piloting the new process.

3. CONSOLIDATED LINE ITEM IMPROVEMENT PROCESS:

A. Discussion Summary

NRC members of the LATF stated that the proposed process is ready to be piloted and that NRC is working with industry to identify the best choice to pilot this new process (see enclosure 4 for a draft flowchart of the proposed consolidated line item improvement process). Some subjects that are being considered are removal of the post-accident sampling system and changes to the motherhood statement with regard to missed surveillance requirements (associated with risk-informed TS changes). NRC staff from the TS branch will try to achieve consensus with industry on the best choice of the issue to pilot this process. At the time of the meeting, it was not clear which issue would be the best pilot.

The industry requested a schedule to implement the new process and an explanation of the steps that would be taken to finish the pilot process. The NRC stated that a draft regulatory information summary (RIS) was near completion which would describe the proposed consolidated line item improvement process. The draft RIS would be placed in the public domain for review and comment (the RIS will also be discussed at the Regulatory Information Conference (RIC) scheduled for March 27, 28, and 29, 2000). The exact steps to be taken to complete the pilot process were uncertain at the time of the meeting due to the uncertainty of the issue that would be chosen to pilot the new process.

The industry stressed and the NRC agreed that an action plan and schedule is needed. Industry will continue to be part of the decisionmaking process and be kept informed of the status.

4. PROCESSING OF TECHNICAL SPECIFICATION BASES CHANGES:

A. Discussion Summary

Industry representatives stated that a draft document that addresses a proposed method to deal with changes to TS bases will be distributed to industry for comment by the end of March 2000. Specific topics surrounding this issue that are currently being developed include recommendations regarding licensee in-house reviews and controlling bases pages. Also, the document will contain recommendations for NRC responsibilities (i.e., NRC issuance of bases pages, etc.).

Staff from the Division of Licensing Project Management are also working on guidance and will review industry recommendations when the document is available to the NRC.

A preliminary decision was made for the guidance, when complete, to be issued in an industry publication. The topic will be revisited as development continues.

5. OTHER LICENSING SUBMITTALS (OTHER THAN TS AMENDMENTS) STATUS:

A. Discussion Summary

Industry representatives discussed the status of those issues surrounding licensing submittals other than license amendment requests such as relief requests, exemption requests, emergency plan (EP) changes, security plan changes, quality assurance (QA) plan changes, etc.

Industry representatives cited guidance that was distributed at a licensing workshop that clearly and concisely addressed relief request requirements. The industry is interested in formalizing that guidance. NRC representatives stated that an NRR OL was in development to address that issue.

The industry is looking for ways to improve the various processes involving relief requests which are submitted pursuant to Section 50.55a of Title 10 of the *Code of Federal Regulations* (10 CFR). Perhaps a rule change to provide clearer guidance could be pursued. Industry representatives also asked if the internal NRC database that contains historic information on relief requests could be made available to the industry. Other options were discussed to streamline the review process within NRC. Perhaps OGC concurrence could be eliminated for relief requests involving precedent code cases. These options will be discussed further at future LATF meetings.

Industry expressed a need for clarification of definitions and requirements that are contained in 10 CFR 50.54 regarding security and EP changes. Industry representatives stated that perhaps a rule change covering EP and security plan changes could be undertaken that would parallel the rule change that addressed QA plan changes. The NRC stressed that the standards for requiring NRC approval for EP and security plan changes are different from those for QA plan changes.

With respect to topical reports, the industry expressed a desire to streamline the submittal and review processes. In addition, establishing a threshold for reporting changes to topical reports is also highly desirable (e.g., an evaluation of changes to topical reports could follow a 10 CFR 50.59 type of review).

The industry is not addressing issues concerning exemptions at this time so that more focus could be placed on relief requests, EP and security plan changes, and topical reports. Industry proposals for suggested improvements for relief requests, EP and security plan changes, and topical reports will be forwarded by the end of June 2000.

NRC representatives stated that a workshop addressing changes to EPs with respect to augmentation and activation times may be scheduled in the fall of 2000.

6. NEW BUSINESS AND FUTURE PLANS:

The NRC asked the LATF for a "big picture" view of NRC performance and the metrics that could allow the NRC to measure its performance. Industry offered that a key metric from its perspective is the ability to meet licensee-scheduled needs and a focus on

delivery of products. Licensee representatives stated that the processing of licensee submittals has, on the whole, improved.

The industry stated that license transfers may be a subject for discussion at future LATF meetings.

The NRC offered comments to an NEI letter dated November 1, 1999, which addressed feedback to the latest revision of OL 1201. The NRC also distributed a response to NEI's November 1, 1999, letter addressing the use of precedent in licensing actions. Please see enclosure 5.

NRC representatives relayed that NRC senior management believe that LATF efforts are adding value and that these efforts should continue.

It was agreed that continued process improvements should be the focus of future LATF efforts.

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LICENSING ACTION TASK FORCE MEETING

FEBRUARY 17, 2000

LIST OF ATTENDEES

<u>NAME</u>	<u>ORGANIZATION</u>
Suzanne Black	NRC/NRR/DLPM
Herb Berkow	NRC/NRR/DLPM
Bill Reckley	NRC/NRR/DLPM
Lenny Olshan	NRC/NRR/DLPM
Larry Burkhart	NRC/NRR/DLPM
L. Raghavan	NRC/NRR/DLPM
Tracy Clark	NRC/NRR/DLPM
Bob Martin	NRC/NRR/DLPM
Jack Donohew	NRC/NRR/DLPM
S. Monarque	NRC/NRR/DLPM
Bob Dennig	NRC/NRR/DRIP
Tilda Liu	NRC/NRR/DRIP
Edwin F. Fox, Jr	NRC/NRR
Bill Beckner	NRC/NRR
Joe Rutberg	NRC/OGC
Catherine Marco	NRC/OGC
Nancy Chapman	SERCH/Bechtel
Don Palmrose	NUS-IS
Pete Kokolakis	NYPA
Mike Schoppman	NEI
Alex Marion	NEI
Al Passwater	AmerenUE
James Fisicaro	Duke Energy
Pedro Salas	TVA
Harry Pontious	NEI/BWROG/ComEd
A.K. Krainik	APS
Roger Huston	LSS
Donald Ferrarro	Winston and Strawn
Don Woodlan	TXU Electric
John Osborne	BGE
Dale R. Wuokko	FENOC/BWROG

NRC/NEI LATF Meeting

February 17, 2000

- 1 Standardization of licensing submittals – NRC
- 2 Consolidated processing of TS line items – NRC/NEI
- 3 Processing of changes to TS bases – NEI
- 4 Other licensing submittals (OLS) team status – NEI
- 5 Unintended TS Actions (UTSA) status – NEI
- 6 Open discussion of other topics – NRC/NEI
- 7 Future plans – NRC/NEI

ACCOMPLISHMENTS

- OL 803 Revisions
- OL 1201 Revisions
- Consolidated Line Item Improvement Process
- Use of precedent
- Use of drafts/telecons
- NRC/Utility Licensing Workshops
- TS Bases change process
- Unintended Tech Spec Actions

LATF Issue Teams

NRC = NRC Action

NRC/NEI = Joint NRC/NEI Action

NEI – NEI Action

Communications & Policy

(Jim Fisicaro, Brian McIntyre, Charlie Brinkman, Alex Marion)

1. Use of NRC precedents (NRC)
2. Informal telecons (NRC)
3. Initial issuance of documents (e.g., SERs) in draft form (NRC)
4. ~~Increase communications between licensees and NRC (OL 803)~~
5. ~~Industry provide feedback on NRC licensing process trends; factor into OL 803~~
6. ~~Coordinate comments on OL 803 (short term)~~
7. ~~NRC paper on the generic communications process (3/30/99)~~
8. ~~NRC management oversight when reviewers are reassigned~~
9. 4. OGC factors associated with licensing reviews (NRC)

Tech Spec Change Process

(Al Passwater, Pedro Salas, Don Woodlan, Dale Wuokko, Harold Chernoff, Alex Marion)

1. Simplified process for minor Tech Spec changes (short term) (NRC/NEI)
2. Guidance for Bases changes (NEI)
3. Generic Tech Spec changes (NRC/NEI)
4. ~~Precedent Tech Spec changes~~

Licensing Submittals (other than Tech Specs)

(Angie Krainik, Chip Perkins, John Osborne, Mike Schoppman)

1. Code exemptions/relief requests (streamlining approval) (NEI)
2. 10 CFR 50.12 exemption approval (NEI)
3. QA/Security/Emergency Plan changes (NEI)
4. ~~Licensee consistency of submittals on similar issues~~
5. 4. Submittal quality factors (NRC)
6. ~~NRC acceptance of precedent (once a submittal is approved, subsequent reviews of similar submittals from other licensees should be expedited)~~
7. 5. Topical reports (NEI)
8. 6. Mandatory reports to be submitted (review value added) (NEI)

Requests for Additional Information

(Roger Walker, Pete Kokolakis, Jim Kenny, Mike Schoppman)

1. ~~Monitor progress made thus far in RAI area~~
2. 1. Consistent application of Backfit Rule to RAIs (NRC)
3. ~~Integrated reviews and RAIs~~
4. ~~Support Projects in the review & screening of RAIs~~
5. ~~Explore value of draft safety evaluations in RAI process~~

LATF Issue Teams

NRC = NRC Action

NRC/NEI = Joint NRC/NEI Action

NEI - NEI Action

Communications & Policy

(Jim Fisicaro, Brian McIntyre, Charlie Brinkman, Alex Marion)

1. Use of NRC precedents (*NRC*)
2. Informal telecons (*NRC*)
3. Initial issuance of documents (e.g., SERs) in draft form (*NRC*)
4. OGC factors associated with licensing reviews (*NRC*)

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Requests for Additional Information

(Roger Walker, Pete Kokolakis, Jim Kenny, Mike Schoppman)

1. Consistent application of Backfit Rule to RAIs (*NRC*)

	ACTION ITEM/ISSUE	Responsibility	Due Date
1	<p>Response to NEI LATF letter dated 8/23/99 re: OL 803, Rev 2</p> <p><i>CLOSED – NRC letter to NEI dated 10/29/99 (Black to Marion)</i></p>	NRC	10/29/99 - C
2	<p>Draft of OL 803, Rev 3</p> <p><i>CLOSED – NEI will not review a draft of Rev 3 prior to publication. NEI will review & comment on final Rev 3.</i></p>	NRC	11/30/99 – C
3	<p>OL 803, Rev 3 final</p> <p><i>CLOSED – Rev 3 approved by NRC on 12/30/99</i></p>	NRC	12/30/99 - C
4	<p>Ultimate Heat Sink (UHS) Issue – NEI LATF will discuss with NEI TSTF group and give them thoughts. NEI will present a recommendation on how to handle.</p> <p><i>CLOSED – NRC/NEI telecon 11/3/99 (see NEI e-mail summary dated 11/5). NRC/NEI discussed options at 12/1/99 LATF meeting. The issue has been referred to the NEI Tech Spec Task Force.</i></p>	NEI	12/1/99 - C
5	<p>UHS Issue - NRC will look at "margin" issue and provide branch technical position</p> <p><i>CLOSED – No generic margin in regulatory guidance documents related to UHS.</i></p>	NRC	12/1/99 - C
6	<p>NEI LATF will forward recommended guidance re: TS Bases changes</p> <p><i>STATUS – NEI LATF is reviewing draft guidance.</i></p>	NEI	<ul style="list-style-type: none"> ● 2/17/00 – NEI discuss status ● 3/31/00 – industry comments ● Status report – next NRC/NEI LATF meeting

7	<p>Provide schedule and priority for resolution of Other Licensing Submittals (OLS) issues</p> <p><i>STATUS – NEI OLS Team telecon held 11/2/99. Followup telecons will be needed. OLS Team schedule to be presented at next NRC/NEI LATF meeting.</i></p>	NEI	<p>10/29/99 2/17/00</p>
8	<p>Provide feedback on OL 1201, Rev 2</p> <p><i>CLOSED – NEI letter to NRC dated 11/1/99 (Marion to Black)</i></p>	NEI	10/29/99 - C
9	<p>Provide feedback to NEI LATF input on OL 1201, Rev 2</p>	NRC	TBD
10	<p>Provide schedule for resolution of Unintended TS Actions, including FR notice, comment period, completion of draft SE, final resolution, etc.</p> <p><i>STATUS – NEI LATF is reviewing NRC OGC comments received at 12/1/99 LATF meeting.</i></p>	NRC/NEI	<p>10/15/99 2/17/00 – NEI status TBD – next actions</p>
11	<p>Forward recommendations to NRC addressing how to best utilize Precedent TS Changes</p> <p><i>CLOSED – NEI provided White Paper to NRC by letter dated 11/1/99 (Marion to Black).</i></p>	NEI	10/29/99 - C
12	<p>NEI LATF to provide additional information on NRC costs, if available (similar to the TVA info)</p> <p><i>STATUS – NEI LATF is compiling data from several sites. To be presented at future NRC/NEI LATF meeting.</i></p>	NEI	<p>TBD (Tentative Apr 2000)</p>

13	<p>Provide schedule for posting database of licensing action precedents on NRC web site.</p> <p><i>CLOSED – NRC prepared to make database available to NEI. NRC has decided it is not feasible to include with NRC ADAMS system.</i></p>	NRC	<p>10/15/99 12/1/99 - C</p>
14	<p>Identify performance metrics that may be used to assess improvements in the amendment process (should be part of OL 803, Rev 3)</p> <p><i>STATUS – NRC preparing draft guideline on licensing action submittals. Continue NRC/NEI LATF dialogue on industry processes used to submit, and NRC processes used to review and approve, licensing actions.</i></p>	NRC/NEI	2/17/00
15	<p>Determine if legal issues preclude implementation of the proposed consolidated line item improvement concept</p> <p><i>STATUS – Discussed at 12/1/99 NRC/NEI LATF meeting. NRR staff has prepared a draft flow chart, which has received tentative approval from NRC and OGC management. Continue LATF discussions to refine flow chart.</i></p>	NRC	<p>10/15/99 2/17/00</p>
16	<p>Provide input to NRC on level of industry interest in consolidated line item improvement concept</p> <p><i>STATUS – NEI has discussed concept with B&WOG, BWROG, CEOG, and WOG. Strong consensus in support of concept.</i></p>	NRC	<p>10/15/99 2/17/00</p>

17	Comment on OL803, Rev 3	NEI	Apr 2000
18	Continue discussion of OGC role in "licensing action" process	NRC/NEI	2/17/00

SAFETY EVALUATION

REMARKS

1. APPLICATION:

This safety evaluation addresses the Southern California Edison Company's (the licensee) application dated December 19, 1997, as supplemented June 1, 1998, and May 13, 1999.

From the licensee's application.

ADAMS Pointer

2. PROPOSED CHANGES:

The licensee proposed changes to TS 3.4.9 to reduce the maximum pressurizer water level pressurizer operability to 57% instead of 61%.

From the licensee's application.

3. PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

Staff's review and findings

The staff's proposed no significant hazards consideration determination was noticed in the *Federal Register* (63 FR 14488). The licensee's June 1, 1998, and May 13, 1999, provided clarifications and additional information that were within the scope of the original FR notice.

ADAMS Pointer

4. STAFF'S DETERMINATION

The staff has reviewed the licensee's technical and regulatory analyses in support of its proposed license amendment which are described in Section 4 and 5 of the licensee's submittal. The staff has determined that the licensee's analyses are complete and address applicable regulatory and design requirements.

ADAMS Pointer

The staff finds the proposed TS changes acceptable on the basis of the following:

- (a) The licensee's reanalysis has demonstrated that the RCS pressure and the peak pressurizer water volume remain below the design limits.
- (b) The pressurizer will not be water solid and no water will flow through the pressurizer safety valves.
- (c) The licensee's reanalysis is based on approved codes and methodologies.

- (d) The proposed TS changes provide sufficient margin between the setpoint and the UFSAR assumed accident analysis limits.
- (e) The licensee's simulator evaluation demonstrates that required operator action can be achieved within the specified time to identify and mitigate the UFSAR design basis accidents.

5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the California State official was notified of the proposed issuance of the amendments. The State official had no comments.

Standard information.

6.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (63 FR 14488). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

ADAMS Pointer

7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

**DESCRIPTION, AND SAFETY AND REGULATORY ANALYSIS
OF PROPOSED CHANGE NUMBER NPF-10/15-470**

1.0 INTRODUCTION

- 1.1 Proposed Change Number 470 is a request to revise Technical Specification (TS) 3.4.9, "Pressurizer," for San Onofre Nuclear Generating Station (SONGS) Units 2 and 3.

1.2 EXISTING TECHNICAL SPECIFICATIONS AND BASES

Unit 2: See Attachment 1
Unit 3: See Attachment 2

1.3 PROPOSED TECHNICAL SPECIFICATIONS AND BASES

Unit 2: See Attachment 3
Unit 3: See Attachment 4

1.4 UPDATED FINAL SAFETY ANALYSIS REPORT (UFSAR) CHAPTER 15 SAFETY ANALYSIS

Units 2 and 3 See Attachment 5

2.0 DESCRIPTION OF CHANGE

This proposed changes are:

- (1) TS changes

Revise the allowed water level for pressurizer operability in both the TS 3.4.9 LCO and SR 3.4.9.1.

Currently TS 3.4.9 requires the water volume to be less than or equal to 900 ft³ (which is approximately 60% pressurizer level). The allowed level for pressurizer operability will be reduced to less than or equal to 57% (instead of 60% pressurizer level).

- (2) FSAR / Design Basis Changes

In FSAR Chapter 15 accident analyses for (1) Chemical Volume and Control System (CVCS) Malfunction, and (2) Inadvertent Emergency Core Cooling System (ECCS) Actuation During Power Operation, reduce operator action time from 30 minutes to 15 minutes to mitigate the two types of events.

- (3) Other

For information only, Technical Specification Bases 3.4.9 is to be revised to reflect a less than or equal to 57% Pressurizer level and to correct the Background text by revising "2750 psig" to "2750 psia."

Also for information, this proposed change includes results of the reanalysis of certain UFSAR Chapter 15 safety analysis events that are sensitive to pressurizer level (See attachment 5).

3.0 BACKGROUND

The control room indicated pressurizer level indication Total Loop Uncertainty (TLU) was recalculated as part of a Southern California Edison (SCE) program to evaluate instrument loop uncertainties in instruments used for Technical Specification Surveillances. This TLU calculation was performed using the current instrument accuracy calculation methodology developed by SCE as part of the TLU program. The recalculation yielded a control room indicated pressurizer level maximum TLU value of 3.9%. Incorporation of this TLU value requires restricting Pressurizer Level to 57% (i.e., approximately 860 ft³), which is less than the current Technical Specification 3.4.9 value of 900 ft³.

UFSAR Chapter 15 events that are sensitive to Pressurizer water volume were reanalyzed to accommodate the 3.9% TLU by assuming a bounding 4.0% TLU. The events are the Chemical and Volume Control System (CVCS) Malfunction with and without Concurrent Single Failure of an Active Component (UFSAR Sections 15.5.2.1 and 15.5.1.1), Inadvertent Operation of the Emergency Core Cooling System (ECCS) during Power Operation (UFSAR Section 15.5.1.2), and Feedwater System Pipe Breaks (UFSAR Section 15.2.3.1). Additionally, "Inadvertent Operation of the ECCS During Power Operation was analyzed with concurrent single failure of an active component." The results of this analysis, which are bounded by the results of a Chemical and Volume Control System (CVCS) Malfunction, will be added to the UFSAR as Section 15.5.2.2.

4.0 TECHNICAL ANALYSES

4.1 TS Changes

Revise the allowed water level for pressurizer operability in both the TS 3.4.9 LCO and SR 3.4.9.1.

Accounting for the pressurizer level control room indication TLU of 3.9% (bounding safety analysis value of 4.0%) in the Technical Specification effectively lowers the allowed pressurizer level for operability. Currently, the Technical Specifications specify a level for operation at less than or equal to 900 cubic feet (which corresponds to approximately 60% level). With a TLU value of 4.0%, the Technical Specification control room indicator value needs to be reduced to 57% to be consistent with the safety analyses which were done at 61% pressurizer level. The normal full power pressurizer level for plant operation is approximately 53%. Administrative controls have been implemented to ensure that the pressurizer level does not exceed 57% during operation. SCE has determined that steady state pressurizer operation above 57% during power operation has not occurred.

4.2 UFSAR Chapter 15 Design Basis Changes

In FSAR Chapter 15 accident analyses for (1) CVCS Malfunction, and (2) Inadvertent ECCS Actuation During Power Operation, reduce operator action time from 30 minutes to 15 minutes to mitigate the two types of events.

The reanalysis of these events was performed using the approved CESEC-III computer code. The analytical value assumed for pressurizer level was 61% (i.e., the proposed 57% Technical Specification value and up to 4.0% TLU). The results of the reanalyses are summarized as follows:

4.2.1. UFSAR Section 15.5.1.1, Chemical and Volume Control System Malfunction

Summary of Analysis

The CVCS malfunction is classified as a moderate frequency event. The initiating malfunction is a failure of the pressurizer level control system which could initiate operation of all 3 charging pumps and isolate letdown. Depending on the failure mode the pressurizer level control system may not automatically terminate the event, so that operator action would be required. Various pressurizer level and pressure control indications and alarms are available to alert the operator of the event. Operator action within 15 minutes to correct the additional charging flow will terminate this event prior to filling the pressurizer. The operator action time for this event was previously 30 minutes.

In order to support a reduction of the operator action time required for this event from 30 minutes to 15 minutes SCE performed a simulation of this event on the Full Scope Simulator. Operators recognized and terminated this event on the Simulator in approximately 5 minutes. Operator simulator training and available alarms and indications in the control room support early operator recognition. It is also important to note that the CVCS malfunction event occurred at SONGS Unit 3 on March 2, 1995. For this case operator action was implemented within approximately 5 minutes which terminated the event, demonstrating that an operator response time of 15 minutes can be accommodated.

4.2.1.2. UFSAR Section 15.5.2.1 Chemical and Volume Control System Malfunction with a Concurrent Single Failure of an Active Component

Summary of Analysis

The CVCS malfunction with a single failure is classified as an infrequent event. The results are similar to those discussed in Item 1 above with the exception of the single failure. The worst case single failure postulated for this event is the loss of offsite power at the time of reactor trip. An operator action time of 15 minutes has been identified to mitigate the consequences of this event. Based on the availability of operator alarms and indications and operator Simulator training, 15 minute operator action is sufficient to recognize and mitigate the inadvertent CVCS with single failure event.

4.2.2. UFSAR Section 15.5.1.2, Inadvertent Operation of the ECCS During Power Operation

Summary of Analysis

An inadvertent operation of the ECCS is classified as a moderate frequency event. The initiating cause is an unplanned increase in reactor coolant inventory due to operator error that erroneously actuates a safety injection actuation signal (SIAS). The inadvertent SIAS activates all three charging pumps, isolates letdown flow, starts the boric acid makeup (BAMU) pumps, shifts charging pump suction to the highly borated BAMU tanks, starts the safety injection pumps, and isolates instrument air to containment. The boration causes a reduction in Reactor Coolant System (RCS) temperature and associated shrinkage in pressurizer liquid volume, which partially mitigates the excess charging flow. A reactor trip eventually occurs on high pressurizer pressure or on low steam generator pressure during the plant cooldown. As a result of the boration of the RCS, the consequences of this event are less adverse than the CVCS malfunction event described in UFSAR Section 15.5.1.1 and there is at least as much

time for operator action as in the CVCS malfunction event. Therefore, there is at least 15 minutes for the operator to correct the malfunction and prevent filling of the Pressurizer.

4.2.2.2.. UFSAR Section 15.5.2.2 Inadvertent Operation of the ECCS During Power Operation with a Concurrent Single Failure of an Active Component

Summary of Analysis

The inadvertent Operation of the ECCS with a single failure is classified as an infrequent event. The results are similar to those discussed in Item 3 above with the exception of the single failure. The worst case single failure postulated for this event is the loss of offsite power at the time of reactor trip. As a result of the boration of the RCS, there is at least as much time for operator action as in the CVCS malfunction with concurrent single failure event described in UFSAR section 15.5.2.1. Therefore, there is at least 15 minutes for the operator to correct the malfunction and prevent filling of the Pressurizer.

4.3. UFSAR Section 15.2.3.1, Feedwater System Pipe Breaks

Summary of Analysis

The feedwater system pipe break is classified as a limiting fault event. The initiating event is a break in a pipe in the main feedwater system. A rupture of a feed line will cause rapid reduction of the liquid inventory in the affected steam generator and therefore create a partial loss of the secondary heat sink. This leads to heatup of the RCS and an increase in RCS pressure. A reactor trip could occur through either a Low Steam Generator Water Level Trip, a Low Steam Generator Pressure Trip, or a High Pressurizer Pressure Trip. Loss of non-emergency AC power was assumed at the time of reactor trip.

Operator action to mitigate the event is assumed to occur 30 minutes after initiation of the event. Peak RCS pressure will remain below the acceptance criteria of 120% of design pressure, and no water will be released through the pressurizer safety valves for the maximum RCS pressure case.

5.0 REGULATORY ANALYSES

5.1 No significant Hazards Determination

1. Will operation of the facility in accordance with this proposed change involve a significant increase in the probability or consequences of any accident previously evaluated?

Response: No

The limiting events impacted by this Technical Specification change have been reanalyzed. These events are the Chemical and Volume Control System (CVCS) Malfunction and CVCS Malfunction With a Concurrent Single Failure of an Active Component, Inadvertent Operation of the Emergency Core Cooling System (ECCS) During Power Operation (Including Single Failure of an Active Component), and Feedwater System Pipe Breaks. The probability of these events is not changed by the restriction of the pressurizer level to 57%. An operator action time of 15 minutes has been identified for the CVCS malfunction and inadvertent ECCS operation events.

Based on the availability of operator alarms and indications and operator Simulator training, 15 minute operator action is sufficient to recognize and mitigate the inadvertent CVCS or ECCS operation. Therefore, this change will not involve an increase in the probability or consequences of any previously evaluated accident.

2. Will operation of the facility in accordance with this proposed change create the possibility of new or different kind of accident from any previously evaluated?

Response: No

This amendment request does not involve any change to plant equipment or operation. All the events identified in Chapter 15 of the Updated Final Safety Analysis Report (UFSAR) were evaluated to determine the impact of the change in pressurizer level. In addition to the normally analyzed Inadvertent Operation of the ECCS During Power Operation event a concurrent single failure of an active component was considered in this evaluation. The analysis of this event with single failure of an active component produced consequences that are bounded by the CVCS malfunction with single failure of an active component. No new or different kind of accident will be created as a result of this Technical Specification change. Therefore, this change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Will operation of the facility in accordance with this proposed change involve a significant reduction in a margin of safety?

Response: No

This amendment request does not change the manner in which safety limits, limiting safety settings, or limiting conditions for operation are determined. There are no changes to the acceptance criteria for these events as a result of the proposed reduction in the maximum pressurizer water level. This change does not reduce a margin of safety since it lowers allowed pressurizer operational level to 57%. An operator action time of 15 minutes has been identified for the CVCS malfunction and inadvertent ECCS operation events. Based on the availability of operator alarms and indications, and demonstrated operator response in Simulator training, 15 minute operator action has been demonstrated to be adequate to recognize and mitigate the inadvertent CVCS or ECCS operation. Therefore, this proposed change does not involve a reduction in a margin of safety.

Based on the above Safety Analysis, it is concluded that: (1) the proposed change does not constitute a significant hazards consideration as defined by 10 CFR 50.92 and (2) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed change. Moreover, because this action does not involve a significant hazards consideration, it will also not result in a condition which significantly alters the impact of the station on the environment as described in the NRC Final Environmental Statement.

5.2 Regulatory Safety Analysis

***** NOTE

The Change	Applicable Regulatory Requirements / Criteria	Analysis	Conclusion
TS3.4.9 LCO and SR 3.4.9.1. Reduce the pressurizer water level from 60% to to less than or equal to 57%	UFSAR safety analyses are consistent with the reduced water level.	UFSAR Chapter 15 events that are sensitive to Pressurizer water volume were reanalyzed.	The design basis accidents will be successfully mitigated.
FSAR Changes (1) for CVCS Malfunction, and (2) Inadvertent ECCS Actuation During Power Operation, reduce operator action time from 30 to 15 minutes.	<p>(a) Peak RCS pressure will remain below the ASME Code acceptance criteria of 120% of design pressure, and</p> <p>(b) no water will be released through the pressurizer safety valves for the maximum RCS pressure case.</p>	<p>The reanalysis of these events was performed using the approved CESEC-III computer code.</p> <p>The analytical value assumed for pressurizer level was 61% (i.e., the proposed 57% plus 4.0% TLU).</p> <p>Operator actions were simulated and found to be achievable.</p>	Design criteria are met.

*****NOTE: This is the only major addition to the licensee's submittal. Other changes to the licensee's submittal are only minor and editorial in nature.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 155 TO FACILITY OPERATING LICENSE NO. NPF-10
AND AMENDMENT NO. 146 TO FACILITY OPERATING LICENSE NO. NPF-15

SOUTHERN CALIFORNIA EDISON COMPANY

SAN DIEGO GAS AND ELECTRIC COMPANY

THE CITY OF RIVERSIDE, CALIFORNIA

THE CITY OF ANAHEIM, CALIFORNIA

SAN ONOFRE NUCLEAR GENERATING STATION, UNITS 2 AND 3

DOCKET NOS. 50-361 AND 50-362

1.0 INTRODUCTION

The current technical specification (TS) 3.4.9, Pressurizer, for the San Onofre Nuclear Generating Station (SONGS) Units 2 and 3, requires that a maximum pressurizer water volume of 900 cubic feet be maintained during Modes 1, 2, and 3. This maximum water volume is approximately equivalent to 61% water level. By letter dated December 19, 1997, as supplemented June 1, 1998, and May 13, 1999, the Southern California Edison Company (the licensee) submitted license amendments to request changes to TS 3.4.9 to reduce the maximum pressurizer water volume for pressurizer operability. The maximum water volume would also be revised to a percent pressurizer water level of 57%.

The licensee stated that this change is necessary to be consistent with a revised pressurizer level instrumentation total loop uncertainty (TLU) which was developed for the replacement transmitters at SONGS Units 2 and 3. The licensee provided the results of its evaluation and reanalysis of certain events that are sensitive to pressurizer water level to support its proposed changes. The licensee also proposed changes to the Updated Final Safety Analysis Report (UFSAR) to incorporate the changes and revised safety analyses.

The licensee's letters dated June 1, 1998, and May 13, 1999, provided clarifications and additional information that were within the scope of the original *Federal Register* notice and did not change the U.S. Nuclear Regulatory Commission (NRC) staff's initial proposed no significant hazards consideration determination (63 FR 14488).

2.0 BACKGROUND

The licensee replaced the pressurizer level transmitter instrumentation in the 1995 Cycle 8 refueling outage to improve pressurizer level instrument loop accuracy under loss-of-coolant accident (LOCA) conditions. As part of the design change package for the instrument replacement, a new TLU was calculated by using the transmitter performance specifications for

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the replacement transmitters. The revised calculation used the same methodology as the original calculation in accordance with the applicable revision to SCE Standard JS-1 23-103U, which follows the guidance in ISA-S67.04-1994, "Setpoints for Nuclear Safety-Related Instrumentation Used in Nuclear Power Plants," and Regulatory Guide 1.105 Rev 2, "Instrument Setpoint for Safety-Related Systems," February 1986. The SCE TLU setpoint program was reviewed and found acceptable by the NRC staff in February 1991.

3.0 EVALUATION

(1) Pressurizer Water Level Setpoint

The current maximum pressurizer water volume is approximately equivalent to 61% water level. The licensee performed an analysis to determine an acceptable maximum water volume taking into account the TLU resulting from the use of the replacement transmitters. The pressurizer level instrument TLU recalculation yielded a control room indicated pressurizer level maximum TLU value of 3.9%. Incorporation of this TLU value requires restricting pressurizer level to 57%, which is less than the current TS 3.4.9 value of 900 cubic feet (which corresponds to a level of approximately 61%). With a TLU value of 4%, the control room pressurizer level indicator value should be reduced to 57% in order to provide margin between the setpoint and the safety analyses that were done at 61% of pressurizer level. The normal full power pressurizer level for plant normal operation is approximately 53%. The setpoint for pressurizer water level of 57% is conservative and provides necessary margin based on the 4% TLU and therefore, is acceptable. Also, administrative controls have been implemented to ensure that the pressurizer level does not exceed 57% during normal power operation.

(2) Reanalysis for UFSAR Chapter 15 Events

The revised TLU value of 3.9% requires restricting the pressurizer level to 57% (i.e., approximately 860 cubic feet which is less than the current TS 3.4.9 value of 900 cubic feet) such that the assumed initial pressurizer level of 61% in the UFSAR will remain valid. The licensee has provided the results of its reanalysis for UFSAR Chapter 15 events that are sensitive to pressurizer water level including the chemical and volume control system (CVCS) malfunction and feedwater system pipe breaks (FSPB) assuming an initial pressurizer water level of 61%.

The licensee has provided its evaluation to demonstrate that the consequences of an inadvertent actuation of the emergency core cooling system (ECCS) is bounded by the CVCS malfunction event. The design shutoff head for the high pressure safety injection (HPSI) pumps was established at a value significantly below the minimum operating pressure for the reactor coolant system (RCS). There will be no water injected into the RCS through the HPSI pumps for the inadvertent ECCS operation event. Therefore, the injection flow to RCS during the inadvertent ECCS operation is the same as for the CVCS malfunction event, the flow from all three charging pumps. Also, the inadvertent ECCS operation will switch over the suction of the charging pumps from the volume control tank (VCT) to the boric acid makeup tank or refueling water storage tank with higher boron concentration. The higher boron concentration water will inject negative reactivity into the core and cause decrease of power and coolant temperature and reduce the increase in RCS inventory caused by the operation of all charging pumps. Equivalent injection flow for both the scenarios and higher boron concentration in the

inadvertent ECCS actuation scenario demonstrate that the consequences of an inadvertent ECCS actuation is bounded by the CVCS malfunction event.

(a) CVCS malfunction event

The licensee performed a reanalysis of the CVCS malfunction event using an NRC-approved CESEC-III computer code. In its reanalysis, the licensee assumed the proposed 61% pressurizer water level and pressurizer level control system failure which could initiate operation of all three charging pumps and isolate letdown. In this event, various pressurizer level and pressure control indications and alarms are available to alert the operator of the event. The licensee stated that depending on the failure mode, the pressurizer level control system may not automatically terminate and manual operator action would be required. Presently, UFSAR Chapter 15 analysis of this event assumes 30-minute operator action. Based on the reanalysis with the proposed 61% pressurizer water level, the licensee determined that operator action within 15 minutes would terminate the additional charging flow and the pressurizer will not become water solid. The revised analysis indicates that 15 minutes following the event, the pressurizer water volume is 1100 cubic feet which is below the maximum pressurizer water volume of 1465 cubic feet at which the pressurizer would become solid (UFSAR Chapter 15, Figure 15.5-7).

In order to support the reduction in the operator action time required for this event from 30 minutes to 15 minutes, the licensee simulated this event on the plant simulator. Using criteria contained in NRC Information Notice 97-78, "Crediting of Operator Actions in Place of Automatic Actions and Modifications of Operator Actions, Including Response Times," the NRC staff evaluated the licensee's proposed operator action times. In response to the NRC staff's request dated September 22, 1998, the licensee provided additional information including emergency operating procedures to demonstrate that the assumed 15 minutes operator actions to terminate this event is achievable. In its May 13, 1999, response, the licensee described that the CVCS malfunction event (e.g., failure of the controlling pressurizer level transmitter) would initiate erroneous indications of low pressurizer level. Pressurizer level would actually be at the normal program level, but the control system would "think" level was low as a result of the instrument failure. The control system would automatically try to refill the pressurizer to its programmed level, which would cause the actual level to increase above normal. The licensee indicated that 15 minutes would be adequate time for operators to take the necessary actions to detect and correct the CVCS malfunction event.

In its December 19, 1997, submittal, the licensee stated that "Operators recognized and terminated this event on the Simulator in approximately 5 minutes." In its May 13, 1999, submittal, the licensee further stated that "The simulator evaluation was performed with a normal full crew complement of licensed Operators with a mix of experience....The CVCS Malfunction event is a routine training task, which is run for all SONGS licensed operating crews on a minimum once per two year frequency. All crews have been evaluated on the simulator and have performed satisfactorily." The licensee further indicated that all crews were naive to the event before being tested, hence they had no advanced knowledge that they would be tested on this event. All operator actions required to mitigate the event are taken from the control room and are performed from a control board on one section of the control boards. Only one operator is required to perform the actions, with a second operator cross-checking his/her actions. The change proposed by the licensee did not require any modification to procedures and thus, no new training was required. In addition, the licensee discussed the

consequences of operators failing to perform the required actions in the time available in its May 13, 1999, submittal. They indicated that, if the operators did not take the required actions in the 15 minutes allowed, then the pressurizer would slowly fill and the VCT level would drop. The control room would receive an additional alarm on low VCT level. Eventually, the pressurizer begins going solid and the RCS pressure begins to rise. At the high pressurizer pressure trip setpoint, the reactor will trip, resulting in a volume reduction in the RCS. The reduced volume would create a steam bubble in the pressurizer, prompting the operators to correct the charging/letdown mismatch. The licensee has demonstrated using NRC-approved Code and methodology that operator action within 15 minutes would prevent the pressurizer becoming water solid. Further, the licensee performed a successful simulator evaluation and showed that operator action within 15 minutes to terminate the event is achievable. Based on its review, the NRC staff finds the reduced operator action time to be adequate for correcting the additional charging flow and terminating the CVCS malfunction event prior to filling the pressurizer, and is therefore, acceptable.

(b) FSPB Event

In the reanalysis of the FSPB event, the licensee assumed 30 minutes operator action time for accident mitigation which is consistent with the previous analysis. In its May 13, 1999, submittal, the licensee indicated that the FSPB reanalysis "did not result in any adverse changes to the expected plant response or operator response for this response. In addition, no emergency procedure changes were required to accommodate the reanalysis of this event." The results of this analysis indicate that the peak pressurizer volume is 1396 cubic feet which is less than 1465.7 cubic feet to ensure that the pressurizer is not water solid and no water-flow through the PSV. The peak RCS pressure is less than 120% of its design pressure which is the acceptance criteria used for this event at SONGS and, therefore, the NRC staff finds the reanalysis to be acceptable.

4.0 SUMMARY

The licensee's reanalysis of the proposed pressurizer water level has demonstrated that the RCS pressure remains below 110% of its design pressure, the peak pressurizer water volume of 1100 cubic feet is less than 1465.7 cubic feet (which is the maximum volume to prevent water entering into the pressurizer relief valve), and the pressurizer will not be water solid and no water will flow through the pressurizer safety valves (PSV). The licensee's proposed TS changes provide sufficient margin between the setpoint and assumed accident analysis limits. The licensee has also demonstrated by simulator evaluation that operator action within 15 minutes to identify and mitigate the CVCS malfunction event is achievable. Therefore, the NRC staff finds the proposed change to TS 3.4.9 to revise the maximum pressurizer water level from 61% to 57% to be acceptable.

5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the California State official was notified of the proposed issuance of the amendments. The State official had no comments.

6.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts and no significant change in the types of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (63 FR 14488). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

7.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: C. Liang
J. Bongarra

Date: August 19, 1999

DESCRIPTION AND SAFETY ANALYSIS
OF PROPOSED CHANGE NUMBER NPF-10/15-470

Proposed Change Number 470 is a request to revise Technical Specification (TS) 3.4.9, "Pressurizer," for San Onofre Nuclear Generating Station (SONGS) Units 2 and 3.

EXISTING TECHNICAL SPECIFICATIONS AND BASES

Unit 2: See Attachment 1
Unit 3: See Attachment 2

PROPOSED TECHNICAL SPECIFICATIONS AND BASES

Unit 2: See Attachment 3
Unit 3: See Attachment 4

UPDATED FINAL SAFETY ANALYSIS REPORT (UFSAR) CHAPTER 15 SAFETY ANALYSIS

Units 2 and 3 See Attachment 5

DESCRIPTION OF CHANGE

This proposed change is a request to revise the allowed water level for pressurizer operability in both the Technical Specification 3.4.9 Limiting Condition for Operation (LCO) and Surveillance Requirement (SR) 3.4.9.1. The proposed allowed level for pressurizer operability is requested to be reduced to less than or equal to 57%. Technical Specification 3.4.9 currently requires the water volume to be less than or equal to 900 ft³ (which is approximately 60% pressurizer level).

From certain safety analyses that were performed to support this reduction in pressurizer level it was determined that operator action time needed to be reduced from 30 minutes to 15 minutes to mitigate two types of events. These analyses are for Chemical Volume and Control System (CVCS) Malfunction and Inadvertent Emergency Core Cooling System (ECCS) Actuation During Power Operation. The adequacy of 15 minutes operator action time has been demonstrated by SONGS operators. Early operator recognition and actions to mitigate pressurizer overflow events within approximately 5 minutes have been demonstrated by operator response experience on the SONGS 2 and 3 simulator and also in actual plant operating conditions. Additionally, the availability of operator alarms and indications in the SONGS control room further support the adequacy of this reduced operator action time. Two other events in the Updated Final Safety Analysis Report (UFSAR) Chapter 15 Safety Analyses take

credit for operator action in less than 30 minutes. These events are Dropped Control Element Assembly (CEA) and Boron Dilution; both credit operation action to mitigate the event within 15 minutes.

For information only, Technical Specification Bases 3.4.9 is to be revised to reflect a less than or equal to 57% Pressurizer level and to correct the Background text by revising "2750 psig" to "2750 psia."

Also for information, this proposed change includes results of the reanalysis of certain UFSAR Chapter 15 safety analysis events that are sensitive to pressurizer level (See attachment 5).

DISCUSSION

A. Background

The control room indicated pressurizer level indication Total Loop Uncertainty (TLU) was recalculated as part of a Southern California Edison (SCE) program to evaluate instrument loop uncertainties in instruments used for Technical Specification Surveillances. This TLU calculation was performed using the current instrument accuracy calculation methodology developed by SCE as part of the TLU program. The recalculation yielded a control room indicated pressurizer level maximum TLU value of 3.9%. Incorporation of this TLU value requires restricting Pressurizer Level to 57% (i.e., approximately 860 ft³), which is less than the current Technical Specification 3.4.9 value of 900 ft³.

UFSAR Chapter 15 events that are sensitive to Pressurizer water volume were reanalyzed to accommodate the 3.9% TLU by assuming a bounding 4.0% TLU. The events are the Chemical and Volume Control System (CVCS) Malfunction with and without Concurrent Single Failure of an Active Component (UFSAR Sections 15.5.2.1 and 15.5.1.1), Inadvertent Operation of the Emergency Core Cooling System (ECCS) during Power Operation (UFSAR Section 15.5.1.2), and Feedwater System Pipe Breaks (UFSAR Section 15.2.3.1). Additionally, "Inadvertent Operation of the ECCS During Power Operation was analyzed with concurrent single failure of an active component." The results of this analysis, which are bounded by the results of a Chemical and Volume Control System (CVCS) Malfunction, will be added to the UFSAR as Section 15.5.2.2.

B. Analyses

The reanalysis of these events was performed using the approved CESEC-III computer code. The analytical value assumed for pressurizer level was 61% (i.e., the proposed 57% Technical Specification value and up to 4.0% TLU). The results of the reanalyses are summarized as follows:

1. UFSAR Section 15.5.1.1, Chemical and Volume Control System Malfunction

Summary of Analysis

The CVCS malfunction is classified as a moderate frequency event. The initiating malfunction is a failure of the pressurizer level control system which could initiate operation of all 3 charging pumps and isolate letdown. Depending on the failure mode the pressurizer level control system may not automatically terminate the event, so that operator action would be required. Various pressurizer level and pressure control indications and alarms are available to alert the operator of the event. Operator action within 15 minutes to correct the additional charging flow will terminate this event prior to filling the pressurizer. The operator action time for this event was previously 30 minutes.

In order to support a reduction of the operator action time required for this event from 30 minutes to 15 minutes SCE performed a simulation of this event on the Full Scope Simulator. Operators recognized and terminated this event on the Simulator in approximately 5 minutes. Operator simulator training and available alarms and indications in the control room support early operator recognition. It is also important to note that the CVCS malfunction event occurred at SONGS Unit 3 on March 2, 1995. For this case operator action was implemented within approximately 5 minutes which terminated the event, demonstrating that an operator response time of 15 minutes can be accommodated.

2. UFSAR Section 15.5.2.1 Chemical and Volume Control System Malfunction with a Concurrent Single Failure of an Active Component

Summary of Analysis

The CVCS malfunction with a single failure is classified as an infrequent event. The results are similar to those discussed in Item 1 above with the exception of the single failure. The worst case single

failure postulated for this event is the loss of offsite power at the time of reactor trip. An operator action time of 15 minutes has been identified to mitigate the consequences of this event. Based on the availability of operator alarms and indications and operator Simulator training, 15 minute operator action is sufficient to recognize and mitigate the inadvertent CVCS with single failure event.

3. UFSAR Section 15.5.1.2, Inadvertent Operation of the ECCS During Power Operation

Summary of Analysis

An inadvertent operation of the ECCS is classified as a moderate frequency event. The initiating cause is an unplanned increase in reactor coolant inventory due to operator error that erroneously actuates a safety injection actuation signal (SIAS). The inadvertent SIAS activates all three charging pumps, isolates letdown flow, starts the boric acid makeup (BAMU) pumps, shifts charging pump suction to the highly borated BAMU tanks, starts the safety injection pumps, and isolates instrument air to containment. The boration causes a reduction in Reactor Coolant System (RCS) temperature and associated shrinkage in pressurizer liquid volume, which partially mitigates the excess charging flow. A reactor trip eventually occurs on high pressurizer pressure or on low steam generator pressure during the plant cooldown. As a result of the boration of the RCS, the consequences of this event are less adverse than the CVCS malfunction event described in UFSAR Section 15.5.1.1 and there is at least as much time for operator action as in the CVCS malfunction event. Therefore, there is at least 15 minutes for the operator to correct the malfunction and prevent filling of the Pressurizer.

4. UFSAR Section 15.5.2.2 Inadvertent Operation of the ECCS During Power Operation with a Concurrent Single Failure of an Active Component

Summary of Analysis

The inadvertent Operation of the ECCS with a single failure is classified as an infrequent event. The results are similar to those discussed in Item 3 above with the exception of the single failure. The worst case single failure postulated for this event is the loss of offsite power at the time of reactor trip. As a result of the boration of the RCS, there is at least as much time for operator action as in the CVCS malfunction with concurrent single failure event described in UFSAR

section 15.5.2.1. Therefore, there is at least 15 minutes for the operator to correct the malfunction and prevent filling of the Pressurizer.

5. UFSAR Section 15.2.3.1, Feedwater System Pipe Breaks

Summary of Analysis

The feedwater system pipe break is classified as a limiting fault event. The initiating event is a break in a pipe in the main feedwater system. A rupture of a feed line will cause rapid reduction of the liquid inventory in the affected steam generator and therefore create a partial loss of the secondary heat sink. This leads to heatup of the RCS and an increase in RCS pressure. A reactor trip could occur through either a Low Steam Generator Water Level Trip, a Low Steam Generator Pressure Trip, or a High Pressurizer Pressure Trip. Loss of non-emergency AC power was assumed at the time of reactor trip.

Operator action to mitigate the event is assumed to occur 30 minutes after initiation of the event. Peak RCS pressure will remain below the acceptance criteria of 120% of design pressure, and no water will be released through the pressurizer safety valves for the maximum RCS pressure case.

C. Plant Operation

Accounting for the pressurizer level control room indication TLU of 3.9% (bounding safety analysis value of 4.0%) in the Technical Specification effectively lowers the allowed pressurizer level for operability. Currently, the Technical Specifications specify a level for operation at less than or equal to 900 cubic feet (which corresponds to approximately 60% level). With a TLU value of 4.0%, the Technical Specification control room indicator value needs to be reduced to 57% to be consistent with the safety analyses which were done at 61% pressurizer level. The normal full power pressurizer level for plant operation is approximately 53%. Administrative controls have been implemented to ensure that the pressurizer level does not exceed 57% during operation. SCE has determined that steady state pressurizer operation above 57% during power operation has not occurred.

SAFETY ANALYSIS

1. Will operation of the facility in accordance with this proposed change involve a significant increase in the probability or consequences of any accident previously evaluated?

Response: No

The limiting events impacted by this Technical Specification change have been reanalyzed. These events are the Chemical and Volume Control System (CVCS) Malfunction and CVCS Malfunction With a Concurrent Single Failure of an Active Component, Inadvertent Operation of the Emergency Core Cooling System (ECCS) During Power Operation (Including Single Failure of an Active Component), and Feedwater System Pipe Breaks. The probability of these events is not changed by the restriction of the pressurizer level to 57%. An operator action time of 15 minutes has been identified for the CVCS malfunction and inadvertent ECCS operation events. Based on the availability of operator alarms and indications and operator Simulator training, 15 minute operator action is sufficient to recognize and mitigate the inadvertent CVCS or ECCS operation. Therefore, this change will not involve an increase in the probability or consequences of any previously evaluated accident.

2. Will operation of the facility in accordance with this proposed change create the possibility of new or different kind of accident from any previously evaluated?

Response: No

This amendment request does not involve any change to plant equipment or operation. All the events identified in Chapter 15 of the Updated Final Safety Analysis Report (UFSAR) were evaluated to determine the impact of the change in pressurizer level. In addition to the normally analyzed Inadvertent Operation of the ECCS During Power Operation event a concurrent single failure of an active component was considered in this evaluation. The analysis of this event with single failure of an active component produced consequences that are bounded by the CVCS malfunction with single failure of an active component. No new or different kind of accident will be created as a result of this Technical Specification change. Therefore, this change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Will operation of the facility in accordance with this proposed change involve a significant reduction in a margin of safety?

Response: No

This amendment request does not change the manner in which safety limits, limiting safety settings, or limiting conditions for operation are determined. There are no changes to the acceptance criteria for these events as a result of the proposed reduction in the maximum pressurizer water level. This change does not reduce a margin of safety since it lowers allowed pressurizer operational level to 57%. An operator action time of 15 minutes has been identified for the CVCS malfunction and inadvertent ECCS operation events. Based on the availability of operator alarms and indications, and demonstrated operator response in Simulator training, 15 minute operator action has been demonstrated to be adequate to recognize and mitigate the inadvertent CVCS or ECCS operation. Therefore, this proposed change does not involve a reduction in a margin of safety.

SAFETY AND SIGNIFICANT HAZARDS DETERMINATION

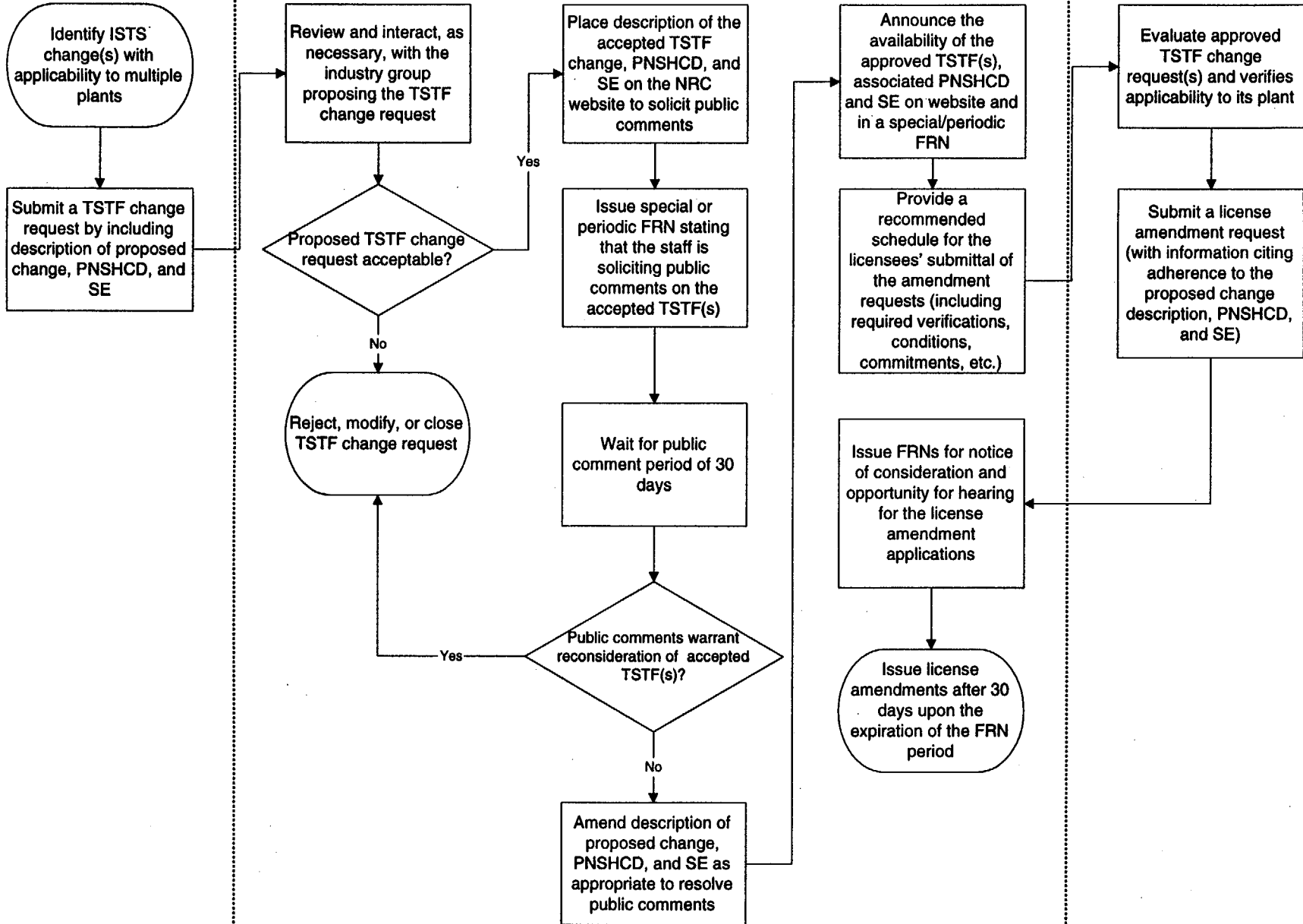
Based on the above Safety Analysis, it is concluded that: (1) the proposed change does not constitute a significant hazards consideration as defined by 10 CFR 50.92 and (2) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed change. Moreover, because this action does not involve a significant hazards consideration, it will also not result in a condition which significantly alters the impact of the station on the environment as described in the NRC Final Environmental Statement.

Draft
NEI TSTF

Consolidated Line Item Improvement Process (CLIIP)

NRC

Draft
Licensee



Response to Comments Provided in November 1, 1999 Letter
on Office Letter 1201, Control of Task Interface Agreements (TIAs)

Several of your comments emphasized that the Office Letter should contain more opportunities for the affected licensee to provide input and feedback during resolution of a TIA

The comments and our response are provided below:

- 1) Office Letter should contain more opportunities for the affected licensee to provide input and feedback during resolution of a TIA
- 2) Participation in the TIA process by the affected licensee would materially improve the accomplishment of the objectives of the OL
- 5) NRC staff should carefully consider the need for licensee input to assist in the TIA process

Response

We generally agree that the licensees can be a valuable source of information in defining an issue and developing a response to a TIA. The office letter includes a decision point for NRR and regions to determine what role the licensee should play. We need to maintain the option of responding to the region without interaction with a licensee. The current revision of the office letter should generally lead to more interactions between NRR and licensees during the resolution of TIAs. We will monitor the use of the current revision and whether it results in the appropriate level of interactions between the staff, licensees, and other stakeholders. Adjustments, if necessary, will be incorporated into the next revision of the office letter.

- 3) Minimize the classification of TIA information as predecisional

Response

The office letter includes a decision point for NRR and regions to determine whether the information should be made public, remain a routine internal memorandum, or be classified as predecisional or sensitive information. We need to maintain the option of responding to the region in any of these forms but would expect that most TIAs would be made public. As with the previous points, we will see if the current revision has the desired effect and, if not, we will change the guidance when we prepare the next revision.

- 4) Licensee should receive a copy of the initiating TIA.

Response

We believe that licensees are generally aware that a regional office has an unresolved or open inspection item regarding issues that become the subjects of TIAs. A knowledge of an inspection unresolved item combined with more interactions between the NRC and licensees during our preparation of a response to a TIA should ensure that licensees have an adequate understanding of technical and policy matters being considered by the NRC. We need to balance the concerns expressed by the LATF with our desire to maintain open communications with the regional offices. In order to promote the continued use of TIAs and to make the process as efficient as possible, most TIA requests from the regional offices will continue to be handled as internal memoranda.

- 6) The outcome of the TIA should not be surprise to the licensee. NRC should include licensees in process and communicate with licensees at initiation and prior to issuance of a TIA response.

Response

We expect that this concern will be largely addressed by increasing interactions between the staff and licensees during the review of TIAs. We will discuss this point with the regional offices and address the concern in the next revision of the office letter. The office letter will mention the special circumstances created when a TIA response results in a licensee entering into a technical specification action statement or otherwise requires some corrective action by a licensee. The staff is also aware that problems can be created by communicating a preliminary staff opinion too early in the process.

**Response to Comments Provided in November 1, 1999 Letter on
Use of Precedent in Licensing Actions**

Please note that some additional emphasis on the use of precedents was added to Revision 3 of Office Letter 803, "License Amendment Review Procedures," dated December 30, 1999 (ADAMS Accession Number ML993550418).

Recommendations & Staff Responses

- A) Include criteria to be considered in determining suitable precedent. Include objective measures such as physical characteristics, design basis information, and risk-significance. With criteria, licensees will better understand staff expectations and be more likely to identify relevant precedent(s).

Response

The office letter and NRR staff have not traditionally viewed precedents in the legalistic manner described in your white paper. Our emphasis on the use precedents is to try to maximize efficiency and to ensure consistency. Precedents can involve varying degrees of applicability to another application. We will continue to promote the use of precedent reviews, in whole or in part, to meet these goals and do not see a significant benefit in defining the term. As a general matter, if a licensee considered it useful in using another licensee's submittal in preparing an amendment application, we would likely find it useful to use that same precedent in our review. As stated at the last meeting of the LATF, the staff would like to start an initiative to improve licensees' applications and our safety evaluations such that the basis for the regulatory findings, including the use of precedents, is clearly specified.

- B) Access to precedent databases not available to licensees

It is not practical for us to place the SEs on the external web or to place them into ADAMS. We are likely to stop entering the SEs into the database after we have ADAMS in place and so we will provide the SE database to the LATF and you may distribute the information in whatever manner you like.

- C) Incorporate communication step into process where staff and licensee talk about the use of precedent.

We have added emphasis to communications between the staff and licensees in the latest revision to Office Letter 803. In addition, we added a specific step into the office letter for the project manager to communicate with the licensee at the end of the planning stage of the process (following our classification of the application in terms of technical complexity and applicability of precedent, estimation of staff resources for review, and estimation of completion schedule).