



SOUTHERN CALIFORNIA
EDISON

An EDISON INTERNATIONAL Company

R. W. Krieger
Vice President
Nuclear Generation

May 20, 1996

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington D. C. 20555

Dear Sir:

Subject: Docket Nos. 50-361 and 50-362
Reply to a Notice of Violation (96-02-01)
San Onofre Nuclear Generating Station, Units 2 and 3

Reference: Letter, J. E. Dyer (NRC) to Mr. Harold B. Ray (Edison), NRC Inspection
Report 50-361/96-02 and 50-362/96-02, dated April 11, 1996

The referenced letter forwarded the results of a routine NRC inspection conducted from February 11 through March 23, 1996, at the San Onofre Nuclear Generating Station, Units 2 and 3. This inspection was documented in NRC Inspection Report Nos. 50-361/96-02 and 50-363/96-02. The enclosure to the referenced letter also transmitted a Notice of Violation, which contained two examples of an apparent violation of the administrative controls for reviewing temporary procedure changes.

In accordance with the referenced letter, the Enclosure to this letter provides Edison's reply to the Notice of Violation. As discussed with Mr. D. Kirsch, NRC:WCFO, on May 10, 1996, this reply was delayed in order to provide a complete response.

As outlined in the Enclosure to this letter, Edison does not believe the examples cited violated regulatory requirements. However, Edison appreciates the observations made by the NRC regarding our Temporary Change Notice (TCN) and Abnormal Alignment (0-23) processes. Although Edison does not believe any regulatory requirements were violated, we have made enhancements to these processes (see Section 2 of the Enclosure).

In addition, the referenced letter noted that the "violation is of concern because it was identified by the NRC and indicated a longstanding failure to perform the reviews of procedures and procedure changes required by the Technical Specifications." As

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noted in the Enclosure to this letter, our TCN and O-23 processes are longstanding methods used to perform reviews and approvals of procedure changes which are similar to those found at other facilities. These processes have been previously reviewed by the NRC (see Section 3 of the Enclosure).

To summarize our Enclosure:

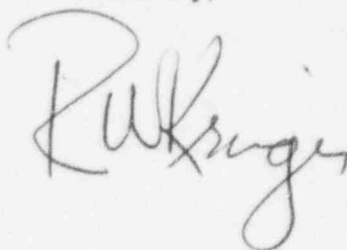
1. The first Notice of Violation example cited Edison for issuing four TCNs without the Operations Manager prior approval, and noted procedures were TCN'd versus revised. We have carefully reviewed each of the cited TCNs to confirm the acceptability of using the TCN process. Edison's review indicates that both the Edison and NRC Inspection Manual definitions of "change of intent" were not violated by these respective TCNs, the TCN process was the appropriate vehicle for effecting these changes, and the TCN process does specify limits to various types of temporary changes.
2. The second Notice of Violation example cited Edison for three temporary changes (abnormal alignments) using the O-23 process. The three abnormal alignments were needed to two existing test procedures to enable Operations to complete a Mode 4 Technical Specification check valve surveillance. The abnormal alignments were special one-time changes based on existing procedures, did not constitute a "special test procedure," and did not change the intent of the base procedures.

In each cited example, the TCN and O-23 processes assured that the temporary procedure changes were reviewed and approved by an Operations Division Senior Reactor Operator and another member of the Plant Management Staff prior to use, followed within 14 days of implementation by the approval of the Operations Manager. Therefore, the requirements of Technical Specification 6.8.3 were met.

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If you have any questions regarding Edison's response or require additional information, please call me.

Sincerely,

A handwritten signature in cursive script, appearing to read "R. W. King".

Enclosures: as stated

cc: L. J. Callan, Regional Administrator, NRC Region IV
J. E. Dyer, Director, Division of Reactor Projects, NRC Region IV
K. E. Perkins, Jr., Director, Walnut Creek Field Office, NRC Region IV
J. A. Sloan, NRC Senior Resident Inspector, San Onofre Units 2 and 3
M. B. Fields, NRC Project Manager, San Onofre Units 2 and 3

ENCLOSURE

REPLY TO A NOTICE OF VIOLATION

The enclosure to Mr. J. E. Dyer's letter dated April 11, 1996, states in part:

- "A. Technical Specification 6.8.1 requires that written procedures shall be established, implemented and maintained covering the procedures recommended in Appendix "A" of Regulatory Guide 1.33, Revision 2, February 1978.

"Appendix A of Regulatory Guide 1.33 includes procedures for general plant operation and for operation of safety-related systems.

"Technical Specification 6.8.2 requires that procedures of Technical Specification 6.8.1, and changes thereto, shall be approved by the Station Manager; or by (1) the Deputy Station Manager, (2) the Manager, Operations, (3) the Manager, Maintenance, (4) the Manager, Technical, or (5) the Manager, Health Physics, as previously designated by the Station Manager; prior to implementation.

"Contrary to the above, the inspector identified that as of February 11, 1996, licensee processes for procedure changes and abnormal alignments failed to ensure compliance with the Technical Specification 6.8.2 requirement for management approval prior to implementation. A few examples of the failure to follow Technical Specification 6.8.2 for each process follows:

- "1. Temporary Change Notices 6-20, dated December 20, 1991; 6-21, dated January 17, 1992; 6-32, dated September 2, 1994; and 6-34, dated December 20, 1994, to Procedure SO23-5-1.7, "Power Operations," were implemented prior to management approval required by Technical Specification 6.8.2. The licensee last revised Procedure SO23-5-1.7 in 1988 and was using it with 36 temporary change notices. The licensee had no process which required that temporary change notices be further incorporated into procedures; therefore, the temporary change notices were not temporary changes, but were in fact procedure changes, as addressed in Technical Specification 6.8.2.
- "2. Abnormal alignments 2-95-138, dated May 2, 1995; 2-95-140, dated May 2, 1995; and 2-95-141, dated May 3, 1995, contained unique operating and testing procedures for safety-related pumps and valves. These procedures were not approved prior to implementation as required by Technical Specification 6.8.2. The licensee process for abnormal alignments allowed the expansion of abnormal alignments into special testing procedures without prior management approval required by Technical Specification 6.8.2.

"This is a Severity Level IV violation (Supplement I) applicable to Units 2 and 3 (361, 362/96002-01)."

RESPONSE

General

Edison is committed to compliance with all regulations, including those pertaining to plant procedures and processes. As discussed in the subject inspection report, the NRC inspectors raised several issues. Edison appreciates the NRC's review of this item, and agreed it would be prudent to enhance the Temporary Change Notice (TCN) and Abnormal Alignment (O-23) processes. Edison has already implemented most of the changes noted in the inspection report (See Section 2 below).

It is important to note that for the cited TCN examples involving Entire Document TCNs, upon approval of the Operations Manager, the TCNs had received essentially the same review and approvals as required by Technical Specification 6.8.2.

Aspects of the Violation

Edison's analysis of the Notice of Violation concluded that there are, in fact, three separate aspects being cited in the Violation:

- (i) The proposed Notice of Violation contends, in part, that TCNs 6-20, 6-21, 6-32, and 6-34 constituted "changes in intent," and as such should have been processed as procedure revisions and received management approval prior to implementation.
- (ii) The proposed Notice of Violation contends, in part, that Edison last revised Procedure SO23-5-1.7, "Power Operations," in 1988 and was using it while it had 36 temporary change notices. Since there was no process which required temporary change notices be further incorporated into procedures, the temporary change notices were not temporary changes, but were in fact permanent procedure changes, as addressed in Technical Specification 6.8.2.
- (iii) The proposed Notice of Violation contends, in part, that Abnormal Alignments 2-95-138, 2-95-140, and 2-95-141 actually constituted a new test procedure, and should have received Operations Manager review and approval prior to implementation as required by Technical Specification 6.8.2.

Attachment 1 provides a detailed description of the temporary change process (TCN and O-23).

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Since the facts and circumstances behind TCNs 6-20, 6-21, 6-32, 6-34, and Abnormal Alignments 2-95-138/140/141 are important to the discussion, Attachment 2 provides the details surrounding those documents.

Attachment 3 provides historical perspective on the NRC's docketed review of our TCN and O-23 processes.

1. Denial of the Violation and the Basis for Denial

Edison denies the violation and requests that the Notice of Violation be withdrawn. The basis for our denial of the three aspects listed above are:

Aspect (i) The proposed Notice of Violation contends in part that TCNs 6-20, 6-21, 6-32, and 6-34 constituted "changes in intent" and as such should have been processed as procedure revisions and received management approval prior to implementation.

In accordance with Technical Specification 6.8.3, TCNs do not require prior management approval. Therefore, Edison believes the NRC has concluded these TCNs must have constituted a "change in intent" of the procedure - which would require prior approval.

As noted in Attachment 1, Edison procedures define a "change of intent" as a "change to the objective of the procedure." Internal NRC guidance contained in NRC Inspection Module 42700, states in part, "... A 'change in intent' means whether changing what is accomplished by the basic procedure or changing the method by which it is accomplished has safety significance."

The Edison definition of "change of intent" is consistent with the licensing basis for San Onofre contained in ANSI N18.7-1976, "Administration Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants." ANSI N18.7-1976 does not provide a specific definition of "change of intent" but rather allows a licensee to define the term.

As shown in Attachment 2 for each TCN, the basic objective of the procedure was not affected by the respective TCN. In addition, the changes had no safety significance in what was accomplished nor on the method by which it was

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accomplished.

The last NRC review on the TCN process occurred in NRC Inspection Report 50-361/86-17, which states in part:

"The process for interim changes to procedures (TCNs) appears consistent with ANSI-18.7 and Technical Specification requirements, including the level of approval, time limits for expiration of non-permanent changes and final approvals of permanent changes. The TCN process allows substitution of corrected pages and full reissuance of procedures constrained by the requirement that the "intent" of the procedure is not altered; the administrative procedures appear to provide reasonable guidance/amplification of the term 'intent'. The TCN process provides for prompt issuance of changes under circumstances of immediate operator need". [emphasis added]

In summary, Edison's licensing search/review indicates there is no regulatory definition of "change of intent." Edison has utilized our definition of "change of intent," consistent with the current licensing basis (ANSI N18.7-1976) at San Onofre since the early 1980s. The definition was reviewed and accepted by the NRC staff and has been used consistently since 1986. While Edison is evaluating a voluntary change to the definition (see Section 2 below), Edison believes it is inappropriate to use the Enforcement Policy (rather than generic rulemaking) to effect such changes.

The first part of example 1 appears to be inappropriately characterized as a violation.

Aspect (ii) The proposed Notice of Violation contends, in part, that Edison last revised Procedure SO23-5-1.7, "Power Operations," in 1988 and was using it while it had 36 temporary change notices. As there was no process which required temporary change notices be further incorporated into procedures, the temporary change notices were not temporary changes, but were in fact permanent procedure changes, as addressed in Technical Specification 6.8.2.

Procedure SO123-VI-1.0.1, "Temporary Change Notices (TCNs) / Editorial Corrections (ECs) Processing," addresses TCN duration. This is noted in the definition of a TCN which states, "Once approved, the TCN is considered temporary until the next revision of the procedure or it is superseded/incorporated by the next TCN."

As discussed in Attachment 1, SONGS TCN process allows three types of temporary changes to Operating Procedures: 1) Single Use TCNs; 2) Affected Page TCNs; and 3) Entire Document TCNs. Each contain time restrictions as to when they are no longer temporary: 1) 30 days and one use for Single Use TCNs; 2) within six months of the tenth temporary change for Affected Page TCNs or when incorporated into Entire Document TCNs or revisions; and 3) until superseded/incorporated into the next Active TCN or revision.

Therefore, for the cited example where "The licensee last revised Procedure SO23-5-1.7 in 1988 and was using it with 36 temporary change notices," there was actually only one valid TCN in effect (TCN 6-36), not 36 separate, active TCNs. All the preceding temporary changes had been incorporated, with TCN-36 changes reflected by change bars in the margin within the body of the document. In addition, the average "age" of each of the TCNs issued against Rev. 6 was approximately 60 days.

Therefore, the procedure could be easily used; it did not contain a series of pages, each cluttered with 36 different types of affected changes as one might have presumed. Procedure SO23-5-1.7, TCN 6-36, is enclosed for your review.

The second part of example 1 appears to be inappropriately characterized as a violation.

Aspect (iii) Abnormal Alignments 2-95-138, 2-95-140, and 2-95-141, were actually changes in intent and should have received Operations Manager review and approval prior to implementation, as required by Technical Specification 6.8.2.

The second example cited Edison for three temporary changes using the O-23 process. The temporary procedure changes, using the O-23 process, occurred when Edison personnel were performing a valve leak check. During the Unit 3 outage, Edison had successfully developed procedure SO23-3-3.31.9, "RCS Pressure Isolation Valve Testing - Hydro Pump Method Cold Shutdown and Refueling Interval." During the subsequent Unit 2 outage, the procedure could only be partially completed. Since only a limited number of valves remained to be tested, and could be tested using an alternate system alignment, the O-23 process was used to complete the leak test procedure. The facts and circumstances surrounding this test are discussed in Attachment 2.

In summary, Abnormal Alignments 2-95-138, 2-95-140, and 2-95-141 were based on existing procedures, and no significant changes in the scope were added. The abnormal alignments did not change the intent of the initial procedure - which was to finish valve leak tests.

The second example appears to be inappropriately characterized as a violation.

2. Enhancements to the TCN and O-23 Process

Edison appreciates and respects the NRC inspector's observations regarding the TCN and O-23 processes. As noted in the General section above, even though the cited examples are not considered violations of regulatory requirements, Edison has identified and implemented prudent enhancements as follows:

- Operations Procedure SO23-5-1.7 was revised on May 8, 1996.
- Station Procedure SO123-VI-1.0.1, revised on May 17, 1996, resulted in:
 - Clarification that a TCN is only temporary until the final approval when it would then be considered a permanent change,
 - Procedure revision recommendation after a procedure has been changed five times,
 - Requirement for deviation approval for any TCN numbered six or higher, and
 - All existing approved TCNs, that do not have a designated time limitation, will be considered permanent.
- Special Operations Order No. 1-96-003, "Use of Abnormal Alignments and Evolutions (O-23's)," was issued on February 9, 1996. This interim action directed that all O-23's written to document the performance of an evolution (several steps that position the same equipment more than one time) shall be approved by the Operations Manager prior to use.
- Station Procedure SO123-O-23, "Control of System Alignments," was revised

on March 25, 1996, to require prior Operations Manager approval if the Abnormal Alignment results in a change of intent or if the Abnormal Alignment was a result of an evolution.

- All current procedures with 6 or more TCNs have been identified (as of April 1, 1996). A plan has been developed to revise these procedures within two years.
- To improve the clarity of when a change in a procedure constitutes a "change of intent" which can not be made by use of the TCN process, the definition of "intent" in Station Procedure SO123-VI-1.0.1 will be enhanced in conjunction with implementation of the Technical Specification Improvement Program, currently scheduled to be implemented on July 15, 1996.

ATTACHMENT 1

Temporary Procedure Change Process

The following provides background information describing the SONGS temporary procedure change process which includes the Temporary Change Notice (TCN) and Control of System Alignment (O-23) processes.

TCN PROCESS

Procedure SO123-VI-1.0.1, "Temporary Change Notices (TCNs) / Editorial Corrections (ECs) Processing," controls the use of TCNs. The four TCNs cited in the violation occurred at various times between 1991 and 1995. During this period, the TCN procedure itself had undergone various enhancements. However, it has retained the Technical Specification (TS) requirement allowing temporary changes to procedures provided:

- 1) The intent of the original procedure is not altered,
- 2) The change is approved by two members of the plant management staff, at least one of whom holds a Senior Reactor License on the unit affected, and
- 3) The change is documented, reviewed and approved by the Station Manager or by: (1) the Deputy Station manager; (2) the Manager, Operations; (3) the Manager, Maintenance; (4) the Manager, Technical; or (5) the Manager, Health Physics; as previously designated by the Station Manager, within 14 days of implementation.

The definition of "intent" is contained in Attachment 1, "Definitions," to SO123-VI-1.0.1 as follows:

"Intent" - The objective of the Document (this is not meant to limit the objective of a Document from change, but rather is intended to maintain the original scope of the Document). It is implied that this shall be achieved safely, result in the appropriate documentation, and include those procedural steps necessary to adequately fulfill the objective in compliance with the applicable requirements."

How a TCN becomes permanent was clarified in a May 1995 revision (Revision 8) to SO123-VI-1.0.1, whereby Attachment 1 added the following definition:

"TCN" - A method by which change(s) can be made to a procedure. Change(s) may be necessary due to certain plant or equipment conditions and/or other economical business needs. Once approved, the TCN is considered temporary until the next revision of the procedure or it is superseded/incorporated by the next TCN."

Additional SO123-VI-1.0.1 definitions relevant to our TCN process are:

"Active TCN - Any TCN/EC [editorial corrections] issued against a Document and listed on the computer system; i.e., those TCNs/ECs provided for use in the field. (Note: This can result in TCNs/ECs being numbered greater than 10.)"

"Single Use TCN - A method by which change(s) can be made to a procedure. Change(s) may be necessary due to certain plant or equipment conditions and/or other economical business needs. Once approved, the TCN remains in effect for thirty (30) days and one use of the procedure/instruction. It shall not incorporate or supersede (see Definitions, Attachment 1) existing TCN/ECs [editorial corrections]...."

"Affected Page(s) TCN/EC - Only the changed/corrected page(s) of a Document, distributed with the ...[TCN] Form.

"NOTES: (1) Affected Page TCNs/ECs are no longer active when they are incorporated into Entire Document TCNs/ECs....

"(2) A Document revision shall be issued or a typed Entire Document TCN/EC issued within six months of the date of issuance of the tenth active Affected Page TCN. The six month revision limitations may be waived by the CFDM for an additional three months when a procedure is determined to be substantially into the revision process...."

"Entire Document TCN/EC - The complete Document, distributed with the ...[TCN] Form."

As can be seen from the above definitions, the SONGS TCN process allows three types of temporary changes to Operating Procedures: 1) Single Use TCNs; 2) Affected Page TCNs; and 3) Entire Document TCNs. Each contain time restrictions as to when they are no longer temporary: 1) 30 days and one use for Single Use TCNs; 2) within six months of the tenth temporary change for Affected Page TCNs or when incorporated into Entire Document TCNs or revisions; and 3) until superseded/incorporated into the next Active TCN or revision.

ABNORMAL ALIGNMENT (O-23) PROCESS

At the time of the cited violation example, SO123-O-23, "Control of System Alignments," TCN 0-19, dated February 2, 1995, was in effect. The objectives of the O-23 process were specified as follows:

- 1) To provide guidance for the control of system alignments during all plant modes,
- 2) To delineate the actions to be taken when a system is discovered misaligned, and
- 3) To provide a method for altering system alignments when direction is not provided by any specific Operating Instruction.

Restrictions to its use were specified in the Precautions and body of the procedure as follows:

- "4.5 Testing which could potentially involve an unreviewed safety question per 10 CFR 50.59 shall not be performed using the method described in Section 6.7. In such cases, a special test procedure or other document will be developed, and submitted for proper technical and managerial review as required by Technical Specification 6.5.2.5.
- " 4.6 Infrequently performed tests or evolutions which take plant personnel or equipment beyond the bounds of existing procedures, training, operating bands, or experience and which represent a significant safety or economic risk shall not be performed using an Abnormal Alignment/Evolution document (Attachment 2). In such cases, the guidance and requirements of S0123-IT-1 [Infrequently Performed Tests or Evolutions Control Program] must be implemented.
- "6.3 Control of System Alignments Affected by System Modifications
 - "6.3.1 Permanent changes will be accounted for by TCNs or revisions to the system Operating Instructions.
 - "6.3.2 Temporary modifications lasting greater than 24 hours should be accounted for by TCNs to the system Operating Instruction(s).

"6.7 Alignments Not Specified in Operating Instructions

"6.7.2 This method shall not be used to accomplish the following without the approval of the Plant Superintendent or designee:

"1 Complex alignments requested by other divisions;

"2 Alignments requiring other than routine interdivisional coordination;

"3 Installation of temporary plant equipment that could alter the function or flow path of existing plant components, including in-service or hydrostatic testing.

"6.7.5 Prior to using this method, the SRO Operations Supervisor shall provide special consideration to ensure that the planned alignment will not endanger personnel or public safety, or operate equipment outside the limits defined in system Operating Instructions or the Technical Specifications [intent not changed].

"6.7.11.1 Within fourteen days of Initial Approval, the Manager, Operations or designee will review and approve the Abnormal Alignment document on file in the Control Room.

"6.7.11.3 If the Manager, Operations or designee disapproves the document, then it will be returned to the Initial Approvers for evaluation. The Initial Approvers or other members of Plant Management Staff will determine what effect the Abnormal Alignment had upon plant operation and safety, and any reporting requirements per SO123-O-14 [Notification and Reporting of Significant Events]."

As can be determined from the above, the O-23 process was designed as an improved Operations Division tool to make temporary procedure changes. The O-23 process was developed to document abnormal equipment alignments and ensure detailed reviews of these alignments. Even though designed to be a temporary change process as allowed by Technical Specifications, the existing O-23 process did not explicitly state it was to be used only when the intent of the original procedure is not altered as does the SONGS TCN process. However, it can be implied from the implicit Precaution wording and Step 6.7.5 that the O-23 process was not to be used if the intent of the exiting procedure was to be changed.

ATTACHMENT 2

Background

The following provides background information describing the methodology behind the generation and acceptance of Temporary Change Notices (TCN) 6-20, 6-21, 6-32, and 6-34, and the Abnormal Alignments (O-23) 2-95-138/140/141.

TCNs

The violation refers to TCNs 6-20, dated December 20, 1991; 6-21, dated January 17, 1992; 6-32, dated September 2, 1994; and 6-34, dated December 20, 1994, to Procedure SO23-5-1.7, "Power Operations," as having been implemented prior to management approval required by Technical Specification 6.8.2. The SO23-5-1.7 objective [intent] was to "... provide procedural guidance and strategies for conducting overall plant operations above 15%."

The following describes what the referenced TCNs consisted of and why they were not believed to have been changes of intent, as defined by Edison in Procedure SO123-VI-1.0.1, which defines intent as:

"Intent - The objective of the Document (this is not meant to limit the objective of a Document from change, but rather is intended to maintain the original scope of the Document). It is implied that this shall be achieved safely, result in the appropriate documentation, and include those procedural steps necessary to adequately fulfill the objective in compliance with the applicable requirements."

TCN 6-20

This TCN corrected the figure number for use on determining Group 6 Control Element Assembly worth for a rapid down power transient. This TCN did not constitute a change in intent. This was just an editorial change to correct a wrong figure number.

TCN 6-21

This change included the following enhancements:

- 1) Additional guidance for an end-of-cycle (EOC) shutdown, when it is desired to trip the Turbine and Reactor at 35% power due to Hot Pin Axial Shape Index (ASI) concerns, and
- 2) Additional guidance to initiate SO23-5-1.4, "Plant Shutdown to Hot Standby," at 50% power up through and including the shift meeting while continuing with procedure SO23-5-1.7 to provide for a smooth transition during shutdown.

These changes did not constitute a change in intent. The procedure provides Operators with management direction to optimize the shutdown process, and were not considered intent changes. Further, the Manager, Operations had reviewed and approved the TCN before the effected change was implemented.

TCN 6-32

This change:

- 1) Relabeled the vacuum trip setpoint select switches, and provided guidance for changing trip set points based on % power, and
- 2) Added a reference to SO23-3-2.13 for power level with the Core Operating Limit Supervisory System (COLSS) and COLSS Backup Computer out of service.

These changes did not constitute a change in intent. The changes provided additional explanatory information and direction, and cross-references for activities already covered within the procedure.

TCN 6-34

This change:

- 1) Enhanced existing guidance that the Deborating Ion Exchanger (DIE) can absorb 60 ppm boron versus 20 ppm, and
- 2) Incorporated Technical Specification Amendment #114 (Unit 2) and #103 (Unit 3) by:
 - a) modifying the number of MSSVs operable versus inoperable, and
 - b) adding a note to address a new Technical Specification action for having less than 5 MSSVs operable.

These changes did not constitute a change in intent. The changes provided: (1) additional information on the existing DIE system performance for the operator; and (2) adjusted existing information on the MSSVs which is included in the procedure as an aid to the Operator; and (3) an annotation referencing the Technical Specification.

In summary, the cited TCNs did not constitute a change in intent, change the objective of the procedure, nor have any safety significant effect on what was accomplished by the basic procedure or the method by which it was accomplished.

O-23 EVENT - MODE 4

Technical Specification 4.4.5.2.2.d states that each Reactor Coolant System (RCS) Pressure Isolation Valve specified in Table 3.4-1 shall be demonstrated Operable by verifying valve leakage to be within its limit within 48 hours following valve actuation due to automatic or manual action or flow through the valve.

During the Unit 2 refueling outage, the Unit entered Mode 4 on May 2, 1995. Upon entering Mode 4, the Shutdown Cooling System was secured which stopped flow through the Unit 2 Low Pressure Safety Injection (LPSI) Header Injection Check Valves, S21204MU072, 73, 74, and 75. Per TS 4.4.5.2.2.d, a leak test was required to be performed on these valves within 48 hours.

In the past, system leakage testing had been performed using Station Procedure SO23-3-3.31.1, "RCS Pressure Isolation Valve Testing Leak Collection Method Cold Shutdown and Refueling Interval." This is an individual line leak test using the Charging Pump. Performing this test usually caused a challenge to the TS 4.4.5.2.2.d 48-hour time limit.

Station Procedure SO23-3-3.31.9, "RCS Pressure Isolation Valve Testing - Hydro Pump Method Cold Shutdown and Refueling Interval," was subsequently developed during the Unit 3 outage to let the above referenced test be performed in a more timely manner, include ALARA consideration, and minimize the challenge to the TS 48-hour time limit. This procedure allows the whole RCS pressure boundary to be tested at once using the High Pressure Safety Injection (HPSI) and Hydro pumps.

Since the Technical Specification action statement only addressed testing a limited number of valves, a complete RCS Pressure Isolation Valve test was not necessary. Therefore, the O-23 process was used to complete the leak test.

On May 2, 1995, Abnormal Alignment 2-95-138 was generated to leak test the four LPSI check valves. In addition post maintenance leak testing on the Safety Injection Tank (SIT) 7 Outlet Check Valve, S21204MU041 and SIT Cold Leg Injection Loop 1B Drain Valve, 2HV9351, was also included in Abnormal Alignment 2-95-138.

The leak collection method from SO23-3-3.31.1 was used to identify leakage at the valves while utilizing the HPSI pump pressurization of SO23-3-3.31.9. The test method of SO23-3-3.31.1 causes the RCS loop check valves to lift and would require those valves to subsequently be tested in accordance with TS 4.4.5.2.2.d to ensure proper resetting.

At the request of Station Technical, a VT-2 leak test on 2PS, 1938, SIT to Reactor Coolant Drain Tank (RCDT), was also included in Abnormal Alignment 2-95-138. A VT-2 leak test is a minor, insignificant addition to the leak test (external leak detection with system pressurized).

Check valve S21204MU072 failed the leak test performed in Abnormal Alignment 2-95-138, and on May 3, 1995, the check valve was flushed using Attachment 24 of SO23-3-3.31.1. Since an O-23 is typically used only once, Abnormal Alignment 2-95-139 was then generated to leak test MU072, using the same leak test methodology as Abnormal Alignment 2-95-138. Check valve S21204MU072 again failed the leak test.

Abnormal Alignment 2-95-140 was generated using the HPSI pump to forcefully close the check valve and then measure the leakage. Check valve S21204MU072 then passed the leak test. Abnormal Alignment 2-95-141 was generated using the same methodology as 2-95-140 to verify S21204MU072 had reseated.

ATTACHMENT 3

Historical Perspectives - Inspection

TCN Process

With regard to the TCN process, NRC review of Edison's use of the TCN process includes:

- NRC Inspection Report 50-361/86-17, which states in part:

"The process for interim changes to procedures (TCNs) appears consistent with ANSI-18.7 and Technical Specification requirements, including the level of approval, time limits for expiration of non-permanent changes and final approvals of permanent changes. The TCN process allows substitution of corrected pages and full reissuance of procedures constrained by the requirement that the "intent" of the procedure is not altered; the administrative procedures appear to provide reasonable guidance/amplification of the term 'intent'. The TCN process provides for prompt issuance of changes under circumstances of immediate operator need". [emphasis added]

O-23 Process

With regard to the O-23 process, NRC review of Edison's use of the O-23 process includes:

- NRC Inspection Report 50-206/89-06 states in part:

"Operations Division Procedure S0123-0-23 (Control of System Alignments), provides operations personnel with a mechanism for documenting abnormal system alignments or evolutions that were not previously specified or addressed by existing operating instructions. The review and approval process specified by S0123-0-23 is similar to that required for temporary procedure changes and is not as rigorous as that required for issuance of an original procedure, or for issuance of a revision to an existing procedure.

"The inspector reviewed Operations Division Procedure S0123-0-23 and observed that clear guidance was not included for determining when it is appropriate to use the O-23 procedure for conducting evolutions. Using an O-23 procedure for performing system hydrostatic tests and other evolutions which have not been thoroughly addressed by existing procedures did not appear to be within the intent originally established for use of the O-23 procedure, and it appeared that additional guidance was required to specify when evolutions fell within the purview of S0123-0-23. . .

". . . The Unit Superintendent and the Operations Manager acknowledged the inspector's concern and stated that procedural enhancements would be established in this area. This is an open item pending completion of licensee action (206/89-06-03)." [emphasis added]

- NRC Inspection Report 50-206/89-30, closed the 50-361/89-06 issue, stating in part:

"(Closed) Follow-up Item (50-206/89-06-03), 'Retest of Auxiliary Feedwater (AFW) SIS/SISLOP Features'

"During the performance of the cold safety injection signal (SIS) and loss of off-site power (SISLOP) test, the inspector identified a concern that verification of valve movement was complicated by the fact that valve alignment was not specified in the operating instruction.

"To resolve the issue, the licensee issued procedure S01[23]-0-23, TCN 0-7, 'Control of System Alignments,' to provide operators with a method to accomplish alignments of installed plant equipment not addressed by existing operating instructions.

"The inspector considered the licensee's actions acceptable. Therefore, this item is closed." [emphasis added]

- NRC Inspection Report 50-206/89-15 states in part:

"Item 50-206/89-08-02 (Closed). This unresolved item involved problems, identified during the back flush of the letdown demineralizers and the need to determine whether the use of Operations Procedure S0123-0-23, Control of System Alignments, for such evolutions is in accordance with the requirements of TS 6.5 and 6.8 and the licensee's QA and Administrative procedures.

"The following documents were reviewed:

"Topical Quality Assurance Manual (TQAM) Chapter 1-C, Quality Planning (Instructions and Procedures)

"TQAM Chapter 5-A, Procedures and Instructions

"Administrative Procedure S0123-VI-1, Documents - Review and Approval Process for Site Orders, Procedures and Instructions

"Operations Procedure S0123-0-20, Uses of Procedures

"The use of the Attachment to S0123-0-23 to perform the demineralizer backflush operation appeared to be in compliance with the letter of the requirements of the above documents and TS 6.5.2, Technical Review and Control. It was also noted that a Temporary Change Notice (TCN) had been issued to S0123-0-23 on April 20, 1989, to require interdisciplinary review for evolutions that require the participation of other departments.

"The inspector had no further questions in this matter." [emphasis added]

- NRC Inspection Report 50-361/95-07 states in part:

"2.8 Unit 3 Hot Leg Injection Line (Number 1) Check Valve 3MU152 Leakage

"On May 17, 1995, while performing MOV analysis and test system diagnostic testing on Hot Leg Injection Valve (Number 1) 3HV9434 after changing the spring pack, pressure perturbations caused Check Valve 3MU152 to unseat and the hot leg injection header Number 1 to pressurize to RCS pressure.

"The inspector noted the time to pressurize to 30 psia between the 2 and 4 day period was approximately 2 hours, 15 minutes. The inspector reviewed the abnormal alignment Procedure, SO123-0-23, TCN 0-19, 3-95-53, 'S31204MU152, Hot Leg Number 1 Check Valve.'

"The inspector concluded that Operations had taken prudent action and that the TS limit for check valve leakage had not been exceeded. The inspector considered Engineering support to Operations, in developing the plan, was good." [emphasis added]

- NRC Inspection Report 50-361/95-07 further states in part:

"4.1 Check Valve Testing - Unit 2

"... For LPSI Loop 1A Check Valve 2MU072, the licensee developed a special alignment (O-23, Log Number 2-95-138) to use a high pressure safety injection (HPSI) pump as the pressure source. However, Valve 2MU072 was known to leak, and Operations management, during its review of the special alignment, recognized that LPSI piping could become overpressurized during the test...The inspector concluded that the test had not been appropriately planned, and that Operations management demonstrated good oversight by recognizing the inappropriate alignment and then revising the alignment prior to conducting the test." [emphasis added]

In these five examples, the NRC specifically observed the O-23 process being used for the temporary (not permanent) control of abnormal system alignments (typically involving alignments of fluid systems and pumps) to support testing.