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July 15, 1982

U. S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region V
1450 Maria Lane, Suite 210
Walnut Creek, California 94596-5368

Attention: Mr. R. H. Engelken, Regional Administrator

Dear Sir:

Subject: Docket No. 50-206
IE Inspection Report 50-206/82-17
San Onofre Nuclear Generating Station, Unit 1

Mr. Sternberg's letter of June 16, 1982, forwarded IE Inspection Report No. 50-206/82-17 and a Notice of Violation resulting from the May 3 - 28, 1982 routine inspection by L. F. Miller, Resident Inspector for San Onofre Unit 1.

Enclosure (I) of this letter provides our response to the Notice of Violation contained in Appendix A of the subject report.

I trust the enclosure responds adequately to all aspects of the violation. If you have any questions or if we can provide additional information, please let me know.

Sincerely,

Enclosure

cc: L. F. Miller (USNRC Resident Inspector, San Onofre, Unit 1)

ENCLOSURE I

Response to Notice of Violation contained in Appendix A to IE Inspection Report 50-206/82-17.

ITEM A: Appendix A to Mr. Sternberg's letter of June 16, 1982 states:

"Technical Specification 6.8.1 states, in part:

> "'Written procedures...shall be established, implemented and maintained that meet or exceed the requirememts and recommendations of Sections 5.1 and 5.3 of ANSI N18.7-1976, Administrative Controls for Nuclear Power Plants; (and) Appendix "A" of USNRC Regulatory Guide 1.33, Rev. 1 Quality Assurance Program Requirements (Operation)...'

"Paragraph 9.a of Appendix 'A' to Regulatory Guide 1.33 states in part:

> "'Maintenance that can affect the performance of safety-related equipment should be...performed in accordance with written procedures....'

"Paragraph 5.3.5(1) of ANSI N18.7-1976 states that maintenance procedures shall reflect the considerations listed under 5.2.6. One of the considerations listed in paragraph 5.2.6 states as follows:

> "'Permission to release equipment or systems for maintenance shall be granted by designated operating personnel. Prior to granting permission, such operating personnel shall verify that the equipment or system can be released.... Attention shall be given to the potentially degraded degree of protection when one subsystem of a redundant safety system has been removed for maintenance.'

"Contrary to the above, on May 10, 1982, with fuel in the reactor, a designated licensee employee modified Permission Form No. 578 to permit additional work. This modification required the closure of a cross-connect valve located in the section of piping between the suction intakes of the two charging pumps. This valve was closed, and this action, combined with the previous removal of the two charging pumps from service to permit maintenance on the Volume Control Tank, (the redundant Test Pump remained in service), reduced the number of available Boric Acid flow paths to one. This is less than the minimum of two Boric Acid flow paths required by Technical Specification 3.2.A(4). The system remained in this condition until May 13, 1982, when it was discovered by the licensee and reported to the NRC Regional Office.

"This deficiency in equipment control resulted in violation of a limiting condition for operation, and is a Severity Level IV violation (Supplement I)."

RESPONSE

1. CORRECTIVE STEPS WHICH HAVE BEEN TAKEN AND RESULTS ACHIEVED

The system was restored to the correct valve lineup and the occurrence investigated immediately upon discovery on May 13, 1982. The investigation included discussions with the operators involved and a review of the affected procedures and resulting documentation. The boundaries of a pre-existing clearance were modified prior to this incident. It has been determined that this change contributed to the cause of the event.

A change to SO1-14-12, "Equipment Control Implementation", has resulted which will require the Shift Supervisor to (a) review the record sheet, (b) check all tags for adequacy of coverage and (c) sign and date the record sheet tag list immediately below the last tag entered on the list for any modification of clearance boundary on equipment or components important to safety. The revision to SO1-14-12 was implemented on June 17, 1982. This clarifies the Shift Supervisor's responsibilities when additional work results in changes to the boundaries of a clearance.

2. CORRECTIVE STEPS WHICH WILL BE TAKEN TO PREVENT FURTHER ITEMS OF NON-COMPLIANCE

A complete review of this incident and how the revised equipment control implementation procedure will help prevent a recurrence has been included in the periodic operator retraining given to all operators. This will be completed by July 31, 1982.

3. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance was achieved on May 13, 1982, with the restoration of both isolated Boric Acid flow paths.

ITEM B: Appendix A to Mr. Sternberg's letter of June 16, 1982 states:

"Technical Specification 6.8.1 states in part:

"'Written procedures...shall be established, implemented and maintained that meet or exceed the requirements and recommendations of Sections 5.1 and 5.3 of ANSI N18.7-1976, Administrative Controls for Nuclear Power Plants; (and) Appendix "A" of USNRC Regulatory Guide 1.33, Rev. 1, Quality Assurance Program Requirements (Operation)....'

"Paragraph 9.a of Appendix 'A' to Regulatory Guide 1.33 states in part:

"'Maintenance that can affect the performance of safety-related equipment should be performed in accordance with written procedures...'

"Paragraph 5.3.5(s) of ANSI N18.7-1976 states in part:

"'The procedures shall contain enough detail to permit the maintenance work to be performed correctly and safely....'

"Contrary to the above, on May 13, 1982, the removal of the south Saltwater Cooling Pump (SWCP) in accordance with licensee's approved maintenance procedure resulted in flooding of the pump mounting area of the ocean water intake structure. This flooding caused erratic flow from the north SWCP - which caused the operators to shut down this pump. Since the auxiliary SWCP was already out of service, there was a total loss of salt water cooling for a period of about 24 minutes (until the north Screen Wash Pump could be aligned to supply salt water cooling). The cause of this event appears to be the licensee's failure to provide sufficiently detailed instructions in the maintenance procedure concerning acceptable levels of ocean tides. The failure to provide sufficient detail in the SWCP maintenance procedure to safely account for the effect of ocean tide conditions is a Severity Level IV violation (Supplement I)."

RESPONSE

1. CORRECTIVE STEPS WHICH HAVE BEEN TAKEN AND RESULTS ACHIEVED

The incident was thoroughly reviewed by Station Management to establish the cause and to determine the appropriate corrective action. Operating shift personnel and maintenance personnel who were involved in this incident also took part in the fact-finding effort. It was concluded that improvement in the applicable procedures and enhanced training in their use was needed. Changes to applicable Station Procedures are being formulated as discussed in paragraph 2, below.

An audit of Work Authorization training classes was held on June 10, 1982. Based on this audit, the Training Department has revised the Work Authorization training program. In addition, all Maintenance and Operating personnel were formally requalified in the proper implementation of Equipment Control and the Work Authorization process. Careful compliance with the Work Authorization and Equipment Control programs is essential to prevent incidents of this type.

2. CORRECTIVE STEPS WHICH WILL BE TAKEN TO PREVENT FURTHER ITEMS OF NON-COMPLIANCE

Formal checklists are being drafted which will be used both for removing equipment from service and for system restoration. The need for these checklists will be established on a case-by-case basis with complexity and/or subtlety of the clearance procedure being key factors in deciding whether or not a checklist is required. Use of an existing checklist will be triggered by reference in the related work procedures.

3. DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

In the specific case cited in the Notice of Violation, the necessary checklist for clearing and restoring the Salt Water Cooling Pumps will be completed, implemented, and referenced in appropriate procedures by August 31, 1982. Identification and treatment by the Station of similar operations which merit the use of a checklist will be an ongoing project.