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TELEPHONE
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November 13, 1992

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

Gentlemen:

Subject: Docket No. 50-361
Reply to a Notice of Violation
San Onofre Nuclear Generating Station, Unit 2

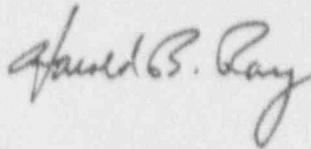
Reference: Letter from Mr. J. H. Reese (USNRC) to
Harold B. Ray (SCE), dated August 13, 1992

The referenced letter forwarded a Notice of Violation resulting from the NRC inspection conducted from August 24, 1992 through August 28, 1992, at the San Onofre Nuclear Generating Station, Units 1, 2, and 3. This inspection was documented in NRC Inspection Report Nos. 50-206/92-19, 50-361/92-19, and 50-362/92-19.

In accordance with 10 CFR 2.201, the enclosure to this letter provides the Southern California Edison (SCE) reply to the Notice of Violation. As agreed to with Mr. H. J. Wong (NRC) on November 12, 1992, this response was delayed to allow time for additional SCE review.

If you have any questions regarding SCE's response to the Notice of Violation or require additional information, please call me.

Sincerely,



Enclosure

cc: J. B. Martin, Regional Administrator, NRC Region V
M. B. Fields, NRC Project Manager, San Onofre Units 2 and 3
C. W. Caldwell, NRC Senior Resident Inspector, San Onofre
Units 1, 2, & 3

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ENCLOSURE

REPLY TO A NOTICE OF VIOLATION

The enclosure to Mr. Reese's letter dated October 13, 1992 states in part:

"Failure to Follow Procedure

"SONGS Unit 2 Facility Operating License No. NPF-10, License condition NO. (19)i, 'Post Accident Sampling System (NUREG-0737 Item II.B.3),' states that 'By September 1, 1983, the PASS shall be operable and the post accident sampling program shall be implemented.'

"NUREG-0737, Item II.B.3, provides that if the licensee uses in-line monitoring for required reactor coolant sampling and analyses, the licensee shall provide backup sampling through grab samples.

"SONGS Unit 2 Technical Specification 6.8.4.d requires that a PASS program be implemented which will ensure the capability to obtain and analyze reactor coolant and other media samples under accident conditions.

"SONGS Procedure SO123-PS-1, 'PASS Program,' Revision 2, Section IV.B, which implements the above requirements, states that 'Alternate methods of sampling for post accident parameters required for the Core Damage Assessment shall be established and maintained.'

"SONGS Procedure SO123-III-8.3.23, 'Units 2/3 Reactor Coolant Sampling and In-line Analysis Using the Post Accident Sampling System,' establishes the operations required to obtain a reactor coolant off-gas grab sample for use in assessing reactor core damage and potential effluent releases following a reactor accident, when in-line monitoring is not available. Valve lineups necessary under the procedure require that the HS-A221 valve be manipulated several times during the alternate sampling operation. Operation of the HS-A221 valve is necessary for obtaining a backup grab sample for reactor coolant off-gas analysis.

"Contrary to the above, from June 25 to August 25, 1992, the licensee failed to maintain a sampling capability for obtaining a backup post accident reactor coolant off-gas grab sample, in that the HS-A221 valve was electrically disconnected.

"This is a Severity Level IV violation (Supplement I)."

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RESPONSE

I. LICENSING BASIS FOR REACTOR COOLANT GAS GRAB SAMPLE

While SCE acknowledges that PASS valve HV-A221 (referred to in the violation as HS-A221) was improperly disconnected, the capability for obtaining a backup post accident reactor coolant off-gas grab sample was not compromised. HV-A221 is required to be manipulated to take the off-gas grab sample. In the event of an accident requiring a PASS sample, there would have been sufficient time for the PASS operators to diagnose the problem, reconnect the electrical connections to the valve, and take the required sample.

NUREG-0737 Section II.B.3 under the subsection "Changes to Previous Requirements and Guidance," item number 2 states that licensees:

"...may use online sampling and analysis to meet the 3-hour time requirement but must provide capability to remove grab samples of reactor coolant and containment atmosphere for separate analysis."

The NUREG-0737 requirement is to have a backup grab sample capability if the primary method for sampling is in-line monitoring. SONGS Units 2 and 3 use in-line monitoring as the primary sampling method with backup grab samples as one of several backups. Section II.B.3 of NUREG-0737 also provides clarification of the requirements for backup grab sample capability. Under the subsection titled "Clarification," item number 8 specifies the following:

"If inline monitoring is used for any sampling and analytical capability specified herein, the licensee shall provide backup sampling through grab samples, and shall demonstrate the capability of analyzing the samples. Established planning for analysis at offsite facilities is acceptable. Equipment provided for backup sampling shall be capable of providing at least one sample per day for 7 days following onset of the accident and at least one sample per week until the accident condition no longer exists."

It is clear from these two paragraphs that the inline sampling must meet the NUREG's 3 hour time requirement, but that the backup grab sample is only required to be capable of providing one sample per day. While calculations of PASS system expected doses did not specifically evaluate a

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scenario involving the need to correct this valve disconnection, our assessment of the design basis conditions in the PASS is that the backup grab sample valve could have been repaired and the requirement for daily samples could have been met within the 5 rem dose limit.

In addition, the grab sample would only be used in the event of the failure of both the inline monitoring system and our alternate method for determining reactor coolant total gas by performing a calculation using pressure and temperature. If these failures occurred, the PASS operator would have attempted to use the backup grab sample capability by manipulating HV-A221. Once HV-A221 did not respond, the PASS operator would have suspected the failure of this valve and would have investigated its failure. Backup grab samples would have been available to flush the PASS skid, evaluate the dose rate and enter the skid area to evaluate the failure. Due to the nature of this failure, the problem would have been quickly diagnosed and the PASS operator would have reconnected the valve. The disconnected wire would not have ultimately affected PASS system operability and the requirement to take one sample per day would have been met.

It should also be noted that during the time frame when the backup grab sample was unavailable, two PASS methods were available for determining total reactor coolant dissolved gasses as required by NUREG 0737. We were in compliance with our PASS program procedures which designate inline monitoring for the primary sampling method, and a calculation using the measurement of pressure and temperature as the alternate method of total gas analysis. Both methods were available.

Nevertheless, we recognize that the valve should not have been disconnected; and therefore, we have investigated the reason for the condition and identified the appropriate corrective action.

II. REASON FOR VIOLATION

SCE concluded that HV-A221 was rendered inoperable due to the inadvertent bumping of the electrical connector associated with the valve during work on an unrelated design change to the PASS system. This violation occurred due to inadequate inspection of the PASS after work on an unrelated design change.

In July of this year, a design change was completed on the PASS to replace the undiluted reactor coolant liquid sampling capability of the system with equipment and shielding necessary to allow obtaining diluted grab samples.

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Since the PASS is a skid mounted system, components are located in very close proximity to one another. Our belief is that during implementation of this design change, the electrical lead to valve HV-A221 was inadvertently disconnected. The locking tabs on the connector were found to be broken upon investigation by SCE.

Following completion of the design change, the area was inspected and testing was conducted on the newly installed components and on several unrelated components to verify PASS operability. The testing, however, did not include this valve and therefore did not identify that this valve was not operable.

The PASS reactor coolant off-gas grab sample capability is used in the event of the failure of both the primary inline monitoring system and the alternate method of determining reactor coolant total gas by performing a calculation using pressure and temperature. If these methods failed, the procedures direct the PASS operator to use the backup grab sample capability by manipulating HV-A221.

III. CORRECTIVE STEPS THAT HAVE BEEN TAKEN AND RESULTS ACHIEVED

Action has been taken to reconnect the electrical lead to the valve and to verify operability of other valves in the PASS. The Following is a list of actions completed:

1. The valve was immediately reconnected and made operable. Spliced connectors were later used to eliminate the potential for dislodgement.
2. All other valves on the PASS skid were cycled and verified operable.
3. Other PASS valves with similar connectors were inspected and ensured to be connected and mechanically secured.

IV. CORRECTIVE STEPS THAT WILL BE TAKEN

SCE will perform a visual inspection of the Unit 1 PASS skid to ensure that no valves are similarly disconnected. This will be completed by November 23, 1992.

This violation will be reviewed with appropriate personnel to ensure that the scope of inspections following major maintenance and modification activities on the PASS provides greater assurance that inadvertent inoperability of a component has not occurred as a result of work in the

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area. This review will be completed by March 31, 1993.

V. DATE WHEN FULL COMPLIANCE WAS ACHIEVED

Full compliance was achieved on August 25, 1992, when the connector was repaired and the valve was verified to be operable.