UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

January 8, 2008

MEMORANDUM TO: Clyde Osterholtz, Senior Resident Inspector
Jared Nadel, Reactor Inspector, Division of Reactor Safety

FROM: Anton Vegel, Deputy Director, Division of Reactor Projects **/RA/**

SUBJECT: SPECIAL INSPECTION CHARTER TO EVALUATE THE SAN ONOFRE NUCLEAR GENERATING STATION EMERGENCY DIESEL GENERATOR GOVERNOR PROBLEM

A Special Inspection Team is being chartered in response to the San Onofre Nuclear Generating Station (SONGS) Unit 3 failure of emergency diesel generator (EDG) 3-2 on December 31, 2007. You are hereby designated as the Special Inspection Team members. Clyde Osterholtz is designated as the team leader. The assigned SRA to support the team is David Loveless.

A. Basis

On December 31, 2007, operators for SONGS Unit 3 manually shutdown the 3-2 EDG due to uncontrolled load swings of approximately 25 percent. The 3-2 EDG was in a 4-hour test run at the time to determine the cause of similar, but smaller, load swings noted during the last monthly surveillance on December 22, 2007. While the licensee indicated the swings were also present on December 23, 2007, and a corrective action document stated that on December 27, 2007, there was still no evidence of grid disturbance or large loads being started, the licensee did no take prompt action to determine whether or not the EDG was operable. The EDG was not run or evaluated again for another 4 days.

Initial troubleshooting determined there was a problem in the EDG speed control (governor) circuit. The licensee determined the probable cause was an improperly installed amphenol connector at the machine's speed sensor. Maintenance personal further indicated the connector had cold solder joints, was missing a stress relief, and had internal oil contamination. The licensee performed visual inspections of these connectors on the other station EDGs, and reviewed data from previous surveillance tests, but did not thoroughly examine or test connections on any other equipment.

This Special Inspection Team is chartered to review the circumstances related to the EDG 3-2 failure, as well as to determine if there are extent of condition issues and/or problems with the station's maintenance and surveillance practices regarding similar electrical connections.

B. Scope

The team is expected to address the following:

1. Develop a chronology (time-line) that includes significant event elements of the EDG 3-2 failure. This should include a review of any applicable data from EDG 3-2 runs prior to December 22.

2. Evaluate the licensee's response to the problem. Ensure that operators responded in accordance with plant procedures and Technical Specifications, and made appropriate operability declarations when faced with improper operation of the EDG.

3. Assess the licensee's root cause determination for the EDG failure, the extent of condition review, the common cause evaluation and corrective measures. Evaluate whether the timeliness of the corrective measures are consistent with the safety significance of the problems.

4. Develop a complete scope of all safety-related electrical equipment with similar amphenol connectors. Determine if the licensee has adequate quality control and testing methods for these connectors.

5. Evaluate pertinent industry operating experience that represent potential precursors to the identification of the December 22 EDG oscillations as an operational problem. Also assess the effectiveness of any licensee actions taken in response to the operating experience.

6. Determine if there are any potential generic issues related to the connector failure at SONGS Unit 3. Promptly communicate any potential generic issues to Region IV management.

7. Collect data as necessary to support a risk analysis. Work closely with the Senior Reactor Analyst during this inspection.

C. Guidance

Inspection Procedure 93812, "Special Inspection," provides additional guidance to be used by the Special Inspection Team. Your duties will be as described in Inspection Procedure 93812. The inspection should emphasize fact-finding in its review of the circumstances surrounding this issue. It is not the responsibility of the team to examine the regulatory process. Safety concerns identified that are not directly related to this issue should be reported to the Region IV office for appropriate action.

The Team will report to the site, conduct an entrance, and begin inspection no later than January 8, 2008. While on site, you will provide daily status briefings to Region IV management, who will coordinate with the Officie of Nuclear Reactor Regulation, to ensure that all other parties are kept informed. If information is discovered that shows a more significant risk was associated with this issue, immediately contact Region IV

management for discussion of appropriate actions. A report documenting the results of the inspection should be issued within 30 days of the completion of the inspection.

This Charter may be modified should the team develop significant new information that warrants review. Should you have any questions concerning this Charter, contact me at (817) 860-8147.

cc:
J. Clark, C:DRP/E
G. Replogle, DRP/E
G. Miller, DRP/E
D. Loveless, SRA/DRS
C. Osterholtz, SRI-SONGS
R. Caniano, DRS
D. Chamberlain, DRP
A. Howell, DRA

SUNSI Review Completed: _JAC____ ADAMS: √ Yes ☐ No Initials: _____
☐ Publicly Available √ Non-Publicly Available ☐ Sensitive √ Non-Sensitive

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RIV:C:DRP/E	D:DRS	D:DRP		
JAClark	RJCaniano	DDChamberlain		
/RA/	/RA/	***AVegel for***		
01/8/08	01/8/08	01/8/08		

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