

U.S. NUCLEAR REGULATORY COMMISSION

REGION V

Report Nos. 50-275/84-28 and 50-323/84-15

Docket Nos. 50-275 and 50-323

License Nos. DPR-76 and Construction Permit CPPR-69

Licensee: Pacific Gas and Electric Company  
77 Beale Street, Room 1435  
San Francisco, California 94106

Facility Name: Diablo Canyon Units 1 and 2

Inspection at: Diablo Canyon Site, San Luis Obispo County, California

Inspection conducted: August 6-10, 1984

Inspector:

*J. E. Burdoin*  
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J. E. Burdoin, Reactor Inspector

*9/5/84*  
\_\_\_\_\_  
Date Signed

Approved by:

*T. Young, Jr.*  
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T. Young, Jr., Chief, Engineering Section

*9-6-84*  
\_\_\_\_\_  
Date Signed

Summary:

Inspection during period of August 6-10, 1984 (Report Nos. 50-275/84-28 and 50-323/84-15)

Areas Inspected: Unannounced inspection by a regional inspector of construction and modification activities including: an area inspection, licensee actions on previously identified items and enforcement items, and TMI task action items.

The inspection involved 32 inspection hours by one inspector.

Results: No items of noncompliance or deviations were identified.

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## DETAILS

### 1. Individuals Contacted

#### a. Pacific Gas and Electric Company (PG&E)/Project Team General Construction (PTGC)

- \*R. R. Lieber, Field Construction Manager
- \*R. A. Hobgood, QC Supervisor
- D. A. Stetson, Technical Assistant, QC Supervisor
- \*K. A. Nilson, Mechanical Field Engineer
- \*J. C. Walker, QA Auditor
- M. E. Leppke, Onsite Engineering Group Supervisor
- B. D. Morowski, Assistant Project Engineer
- \*K. A. Palmer, Mechanical Field Engineer
- \*G. R. Vincent, QC Inspector
- G. L. Holst, Quality Engineer/OPEG
- G. C. Spease, Quality Engineer/OPEG
- D. K. Cosgrove, QA Engineer/OPEG
- J. J. Munro, Civil Field Inspector
- G. D. Morrison, Elec. Field Inspector

Various other engineering and QC personnel.

\*Denotes attendees at exit meeting on August 10, 1984.

### 2. Area Inspection

An independent inspection was made in Unit 2, auxiliary building areas at elevations 58 ft., 64 ft., 73 ft., and 85 ft. The equipment spaces inspected included two containment spray pump rooms, three component cooling pump rooms, three charging pump rooms, two RHR pump rooms, boron injection tank room, and post loca liquid sampling/chemical analysis panels and casp control panel area. Construction work was in process in all areas.

Deficiencies found included:

#### a. Debris in chemical analysis panel and casp control panel.

During the exit meeting, the licensee committed to take steps to correct the problem of debris in control panels.

#### b. Indentations on eductor outlet pipe which taps into containment spray pump 2-1 suction pipe.

Licensee inspected marks on eductor piping and concluded they were caused by welder's hammer while removing slag from piping. Depths of indentations were determined to be approximately 1/64" and within the 1/16" allowable depth for marks of this type per ESD 215 section 9.0.

No violations of NRC requirements were identified.

3. Licensee Action on Previous Enforcement Items

a. (Closed) Noncompliance (50-323/84-02-01) Structural Steel Modifications Not Performed in Accordance With Procedures

The licensee initiated action to repair weld no. 249C (reference drawing 10033-C2-13-249) which exhibited undercut. The licensee also initiated action to install hardened washers on three A490 1" round bolts, to install a longer bolt in one position, to install a new 1" round bolt where missing and to torque all bolts per QCPC-7. The inspector verified the completion of the repairs to the welds and replacement/installation of bolts and washers by visual inspection in the field and examination of the QC records for these repairs. This item is closed.

b. (Closed) Noncompliance (50-275/84-04-01) Electrical Raceway Supports Modification Not Performed In Accordance With Procedures

Three electrical raceway supports: CSR-127-5-6, GE/GW-140-210 and J-185-1-38 were identified in this citation.

A red tag had been left on support CSR-127-5-6 and the nonconformance documentation (support inspection work sheet) for this red tag could not be located in the QC record package. The QC inspector who had attached the "red tag", which noted a misaligned spring nut, had terminated his employment.

The spring nut was realigned, inspected, and accepted as documented in nonconformance report (NCR), HPF-8802-1120 which was initiated in response to the NRC inspection.

The licensee has established a new process for handling work packages to prevent in the future a similar loss of documentation upon termination of employment by an inspector.

A Design Change Notice (DCN), under which modifications to raceway support GE/GW-140-4-210 were accomplished, shows a Typical Detail for adding two S-6 braces to the support. Both braces were installed per the detail. However, documentation of inspection for only one S-6 brace could be found in the QC package. NCR HPF-8802-1120 required that the installation of the second brace be reinspected and documentation be filed in the QC package.

Based on the Phase I and Phase II reviews performed by H.P. Foley where no similar problems were noted, general construction concluded that this was an isolated incident. Therefore, no additional corrective action is necessary.

The detail drawing included with the DCN modification to raceway support J-185-1-38 indicated the strut was to be welded at only one end. Welding was necessary at both ends and was performed at both ends per the welding detail. The QC inspector documented and

inspected the welding at only one end of the strut as shown in the detail. NCR HPF-8802-1120 required the support be reinspected and documentation for both ends to be filed in the QC package.

The licensee, to prevent a similar occurrence in the future, has reinstructed H.P. Foley's engineering and construction departments to follow the design documents and that any deviations must be approved in advance per normal project procedures.

The NRC inspector reviewed the corrective measures for the three above identified electrical raceway supports and examined the QC records. The documentation supports the corrective actions required by NCR HPF-8802-1120 as described in the above paragraphs. This item is closed.

4. Follow-up of Previous Inspection Items

a. (Closed) Item 50-275/83-02-01 Piping Modifications

This item was identified in inspection report 50-275/83-02 as remaining open in order for the inspector to examine the QC records for the installation of two new two inch valves in the emergency borate piping system. The QC installation weld records and liquid penetrant exam records for welds 4302/4303 and 4309/4310 were examined and appear to be in order. This item is closed.

b. (Closed) Item (50-275/83-02-02) Modifications to HVAC Duct Supports

This item was identified in inspection report 50-275/83-02 as remaining open pending subsequent inspection of ongoing modifications to HVAC duct supports in Unit 1 auxiliary building and containment. The periodic progress of these modifications have been reported in subsequent inspection reports (50-275/83-15 and 83-24) since February 1983.

An audit of the Quality Control Records of modifications to the following HVAC duct supports was conducted:

59329-34	59330-40
-35	-41
-36	-42
-37	-46
-38	-46
-39	

The QC records for modifications to the above identified HVAC duct supports appear to be in order.

It has been determined from a review of the licensee's construction program and a review of the records including the above audit that modifications to HVAC duct supports in Unit 1 have been completed. This item is closed.

c. (Closed) Item (50-275/83-02-03) Structural Steel Welds in the Fuel Handling Building

This item was identified in inspection report 50-275/83-02 and additional inspection in this area during an inspection on February 28 through March 4, 1983 resulted in a violation being issued with inspection report 50-275/83-08. The violation was closed-out in inspection report 50-275/83-29. Therefore, this item is closed.

d. (Closed) Item 50-323/82-13-03, Onsite Design Activities Unit 2

This item was addressed in inspection reports 50-323/82-13 and 83-01. The licensee's onsite design activity which was limited to small bore piping and pipe supports was transferred to the San Francisco office effective June 14, 1984. However, the Onsite Project Engineering Group (OPEG) retains design responsibility in the area on non-safety related systems, structures and components.

During this inspection period OPEG was in the process of forwarding to San Francisco pipe hanger design packages. The inspector examined the transmittal process for forwarding these packages to the San Francisco office. The inspector also examined quality assurance master audit plan for OPEG and reviewed audits in the following two areas; 1) handling of discrepancies and 2) indoctrination and training. The documentation examined appeared to be in order. This item is closed.

No violations of NRC requirements were identified.

5. TMI Task Action Plan Items for Unit 2

The below identified TMI Task Action Plan items described in NUREG-0737 were inspected in the field to verify that the installations are completed in accordance with the following acceptable criteria:

- a. Supports and protection - physical protection from missiles and high energy line breaks.
- b. Independence - physical separation between redundant instrument components at sensors and actuating devices in the control panels.

The specific installations inspected are:

- c. II.D.3, Direct Indication of Pressurizer Relief and Safety-Valve Position.

The acoustical monitors and associated cabling and conduit routing for the three code safety valves were inspected.

- d. II.B.1, Reactor Coolant System Vents

The four solenoid operated reactor head vent valves and associated cabling and conduit routing were inspected.

e. II.F.2, Instrumentation for Detection of Inadequate Core Cooling

The Reactor Vessel Level Instrumentation System (RVLIS) and reactor incore thermocouples were inspected.

These task action items will remain open for further inspection and examination of QC records, as built drawings, and other design aspects during a future inspection, (50-323/84-01).

No violations of NRC requirements were identified.

6. Technical Assistance Contract

A contract has been awarded by NRC Region V to the Lawrence Livermore National Laboratory (LLNL) to provide assistance in inspecting the plant modifications being implemented at Diablo Canyon as a result of the design verification program. Enclosures B, C and D contain the contractors progress reports for May, June and July, 1984.

7. Exit Meeting

On August 10, 1984, the inspector met with the licensee's representatives (identified in paragraph 1. During this meeting, the inspector summarized the scope of the inspection activities and reviewed the inspection findings as described in this report. The licensee acknowledged the concerns identified in this report.