APR 24 1985

Docket Nos. 50-275 and 50-323

Pacific Gas and Electric Company
77 Beale Street, Room 1451
San Francisco, California 94106

Attention: Mr. J. D. Shiffer, Vice President
Nuclear Power Generation

Gentlemen:

SUBJECT: NRC INSPECTION OF DIABLO CANYON UNITS 1 AND 2

This refers to a routine inspection, conducted by Messrs. M. M. Mendonca, M. L. Padovan, T. M. Ross, and T. J. Polich, of this office during the period of February 17, 1985, through April 6,1985. This inspection examined your activities as authorized by NRC License No. DPR-80, and Construction Permit No. CPPR-69. Discussions of our findings were held with Mr. R. C. Thornberry, and other members of your staff, at the conclusion of the inspection.

Areas examined during this inspection are described in the enclosed inspection report. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspectors.

No violations of NRC requirements were identified within the scope of this inspection. However, your attention is invited to specific findings in the report pertaining to Unit 2 operations. We recommend you focus on these issues before entering a mode of operation where these findings become critical.

In accordance with 10 CFR 2.790 (a), a copy of this letter and the enclosures will be placed in the NRC Public Document Room.

APR 24 1985

Should you have any questions concerning this inspection, we will be glad to discuss them with you.

Sincerely,

D. F. Kirsch, Acting Director
Division of Reactor Safety
and Projects

Enclosure:
Inspection Report Nos. 50-275/85-08 and 50-323/85-09

cc w/enclosure:
S. D. Skidmore, PG&E
P. A. Crane, Jr., PG&E
R. C. Thornberry, PG&E (Diablo Canyon)
D. A. Taggert, PG&E (Diablo Canyon)
R. Weinberg, PG&E (Diablo Canyon)

bcc w/enclosure:
RSB/Document Control Desk (RIDS)
pink/green/docket file copies
LFMB (w/o enc)
Resident Inspector
State of CA

RV

Padovan/dot	Ross	Polich	Mendonca		Kirsch
4/18/85	4/18/85	4/18/85	4/18/85	4/18/85	4/23/85

U. S. NUCLEAR REGULATORY COMMISSION
REGION V

Report Nos: 50-275/85-08 and 50-323/85-09

Docket Nos: 50-275 and 50-323

License No: DPR-80

Construction Permit No: CPPR-69

Licensee: Pacific Gas and Electric Company
77 Beale Street, Room 1451
San Francisco, California 94106

Facility Name: Diablo Canyon Units 1 and 2

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

Inspection conducted: February 14 - April 6, 1985

Inspectors: R T Dodds for — 4/18/85
M. M. Mendonca, Sr. Resident Inspector — Date Signed

R T Dodds for — 4/18/85
M. L. Padovan, Resident Inspector — Date Signed

R T Dodds for — 4/18/85
T. M. Ross, Resident Inspector — Date Signed

R T Dodds for — 4/18/85
T. J. Polich, Resident Inspector — Date Signed

Approved by: R T Dodds — 4/18/85
R. T. Dodds, Section Chief — Date Signed

Summary:

Inspection from February 17, 1985 through April 6, 1985
(Report Nos. 50-275/85-08 and 50-323/85-09)

Areas Inspected: Routine inspection of: Plant operations; maintenance and surveillance activities; Unit 2 preoperational test program; Unit 1 power ascension testing; Unit 2 systems turnover; followup of open items amd LERs; reactive inspection of significant operational events and allegations; independent inspection of licensed operator shift manning, generic concerns, EQ program, and GONPRAC meeting.

This inspection effort required 357 inspector-hours for Unit 1, and 303 inspector hours for Unit 2 by four resident inspectors.

These procedures reference plant drawing 050909 which lists all electrical and I&C devices by manufacturer, model number, design class, Q listing reference, seismic qualification, and enviromental qualification. From drawing 050909, environmental qualification requirements for selected equipment were noted and verified to be consistent with the requirements for preventive maintenance and surveillance testing of selected equipment.

This program further requires any EQ equipment, work, and documentation to be specifically labeled as EQ; additionally, the program required training in the EQ procedures, as well as, updating and failure trend analysis. The licensee has planned for full implementation of the EQ program by March 31, 1985. This date is consistent with an understanding between the NRC's Office of Nuclear Reator Regulation licensing project manager for Diablo Canyon and PG&E cognizant engineering group.

e. Station Battery Installation, Operation and Maintenance

J. M. Taylor's (NRC) February 26, 1985, memo to the NRC Regional Administrators on the subject of "Station Battery Operation and Maintenance," identified several deficiencies previously existing in the installation, operation and maintenance of station batteries at several nuclear facilities. In response to this memo, the inspector evaluated the condition of the Unit 1 station battery. Items evaluated included 1) the physical installation (such as battery supports, battery fluid level, cleanliness, cell integrity, lack of terminal corrosion and cell sediment, etc.) and 2) battery records (such as float voltages, performance of service tests, specific gravity measurements, equalization charges, full capacity tests, etc.). Additionally, the inspector witnessed the performance of STP M-11A "Measurement of Station Battery Pilot Cell Voltage and Specific Gravity." The inspector verified that 1) the acceptance criteria of STP M-11A was met, 2) the requirements of Technical Specification Surveillance Requirement 4.8.3.1 "Electrical Power Systems - D. C. Sources" have been complied with, and 3) the recommendations contained in J. M. Taylor's memo are being instituted for the Diablo Canyon Unit 1 station batteries.

No violations or deviations were identified.

10. Allegation Followup

Task: Allegation or Concern No. 152

ATS No: RV-84-A017

a. Characterization

Concerns with installation of P 1331 conduit clamps. Three specific concerns were identified: 1) P 1331 inner bolts cannot be torqued to the specified torque; 2) the torque relaxes after several days; and 3) the torque values specified are excessive.

b. Implied Significance to Plant Design, Construction, or Operation

Improper installation of P 1331 conduit clamps might result in raceway supports being incapable of performing their intended functions.

c. Assessment of Safety Significance

The staff verified that, prior to this allegation, the licensee had identified electrical raceway supports that were not torqued to values required for seismic design conditions. The licensee subsequently issued 1625 torque modification packages for Unit 2 raceway supports to correct these deficiencies. During the implementation of the torque modification program, the licensee identified 159 torque modifications that could not be accomplished as originally specified.

Additional engineering analysis was required on these torque modifications, 78 of which involved P 1331 clamps. Original torque modifications required all clamp bolts regardless of position, inner or outer, to be torqued to the value required for the critical load-bearing bolt or bolts on the clamp. Subsequent torque modifications identified the specific bolts that required torquing and either an alternative method to torque the inner bolts if they were load-bearing or other methods to accomplish seismic hardening of the clamps such as increasing the torque on other bolts, or welding. The staff reviewed the revised torque modifications on a sampling basis to ensure that the inner bolt torquing concern was identified and adequately addressed by the licensee.

The staff determined that the second concern regarding bolt relaxation was addressed by the licensee prior to implemention of original torque modifications. The licensee contracted ANCO Engineers Inc. to conduct tests to determine the slip-resistance capacity of bolted connections for various nut types and bolt torques. These test results were utilized by the licensee in preparing the original torque modifications. The inspector reviewed portions of the ANCO Engineering's Test Report which verified no significant bolt relaxation was observed during testing.

It was also determined that the third concern stating the torque values specified are excessive was addressed by the licensee prior to receipt of this allegation. When the higher "excessive" torque value of 85 ft-lbs was required by engineering analysis, a Design Change Notice (DCN)was issued which included a hardware change to bolts that had been tested for both slip-resistance and torque relaxation at this higher torque. The inspector verified that the DCNs included such hardware changes.

d. Staff Position

The staff found that the licensee properly identified and dispositioned these installation concerns prior to the allegation

and there is acceptable assurance that raceway supports were properly installed. Furthermore, in Section 6 of Supplemental Safety Evaluation Report No. 29, March 1985, the staff concluded, that the methods used by the licensee to evaluate electrical raceway supports including actual bolt torque levels, were acceptable.

e. Action Required

No further action is required.

Task: Allegation or Concern Nos. 1652 and 1653

ATS NO: RV-84-A122

a. Characterization

Installation, inspection and testing of seals in crane wall (inside containment) and auxiliary building penetrations were performed by personnel who were not properly trained. Indoctrination records were falsified.

b. Implied Significance to Plant Design, Construction or Operation

The subject penetration seals perform one or all of the following functions: 1) radiation shielding, 2) hydrostatic/air sealing and 3) fire barrier sealing. Unsatisfactory penetration shielding could result in increased personnel radiation exposure or unanticipated damage to safety related equipment (as a result of fires or steam line breaks).

c. Assessment of Safety Significance

In responding to a Hot-Line concern, as documented in Quality Concern Summary Report-110, the licensee held additional conversations with the concerned individual. The individual indicated that he did not intend to imply that training records were falsified. Instead, he clarified that training of Prometec installation, inspection and testing personnel was not adequate.

The licensee's findings from their review of the individual's concern concurred that further onsite training and indoctrination of Prometec craft personnel was necessary. Accordingly, all Prometec personnel were directed to attend QA orientation classes. Additionally, specific instruction in procedures, regulations, methods, responsibilities, and personnel interfacing, as applicable, was provided to Prometec personnel. The staff reviewed records to verify attendance at this training.

Conversely, the licensee's review also determined that Prometec QC personnel were well trained and knowledgeable. The staff established, from a review of the Promotec procedures, that OC hold points were required to be implemented. The staff determined that the licensee verified that QC hold point inspections had been performed as specified in the seal installation process. Therefore,

assurance is provided that previously installed penetration seals are satisfactory.

d. Staff Position

The staff finds that the concerns identified above have been responsibly dispositioned by the licensee.

e. Action Required

No further action is required.

No violations or deviations were identified.

11. Open Item Followup

a. Vendor Problems Tracking System (Open Item 84-03-01, Closed)

The licensee has instituted a new commitment control module as part of the plant information management system that is used to track vendor problem reports. Additionally, responsibilities have been defined for Westinghouse Technical Bulletins, NRC Bulletins and Notices, Nuclear Operations Maintenance Information Service information, and INPO's Significant Operating Experience Reports and information service. This item is closed.

No violations or deviations were identified.

12. Licensee Event Report (LER) Follow-up (Unit 1)

Circumstances and corrective actions described in the following LERs were examined. Review of the LERs, and reporting to NRC within required time intervals by the licensee, was verified by the inspectors. The inspectors also ensured appropriate corrective actions were established and applicable events were accurately described. Accordingly, the following LERs are considered closed:

LER 85-04: Nonfunctional fire barriers were acceptably reported and addressed by the licensee.

LER 85-03; LER 85-06; LER 85-07; LER 85-09: These four LERs were discussed in Inspection Report Number 50-275/85-01 and were verified to have been acceptably reported by the licensee.

LER 85-11: The manual reactor trip on loss of feedwater is discussed within this report; it was also acceptably addressed and reported by the licensee.

No violations or deviations were identified.