

U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT

REGION V

Report No. 50-275/80-04

Docket No. 50-275 License No. CPFR-39 Category \_\_\_\_\_

Licensee: Pacific Gas and Electric Company

77 Beale Street

San Francisco, California 94106

Facility Name: Diablo Canyon Unit 1

Inspection at: San Luis Obispo County, California

Inspection conducted: February 11-15, 1980

Inspectors: H. S. North May 16, 1980  
H. S. North, Radiation Specialist Date Signed

Approved by: F. Wenslawski May 16, 1980  
F. Wenslawski, Chief, Reactor Radiation Safety Section Date Signed

Approved By: H. E. Book 5/16/80  
H. E. Book, Chief, Fuel Facility and Materials Safety Branch Date Signed

Summary:

Inspection on February 11-15, 1980 (Report No. 50-275/80-04)

Areas Inspected: Training in radiation protection and emergency response; radiation protection organization including staffing and training; instruments and equipment associated with radiation protection, emergency response and environmental protection; preoperational testing; Bulletins and Circulars; Waste Management procedures and Offsite Dose Calculation Manual and plant tour. The inspection involved 37 inspector hours onsite by one inspector.

Results: No items of noncompliance or deviations were identified.

IE:V Form 219(2)



A B C D E F G H I J K L M N O P Q R S T U V W X Y Z



DETAILS

1. Persons Contacted

Division Personnel (Operations)

- \*R. Ramsay, Plant Superintendent
- \*R. Patterson, Supervisor Operations
- \*J. GiscoIn, Power Plant Engineer
- \*J. Boots, Senior Chem and Rad Protection Engineer
- W. O'Hara, Chem and Rad Protection Engineer
- S. Fridley, Assistant Training Coordinator
- \*J. Diamonon, QC Supervisor

General Construction

- \*M. Norem, Startup Engineer
- W. Coley, Startup Engineer
- J. Sumner, Startup Engineer
- B. LeConte, Startup Engineer
- \*K. Rhodes, Field Engineer
- P. Gilbeath, Technical Subforeman A

Corporate Office

- \*J. Shiffer, Manager, Nuclear Generation
- \*C. Seward, QA Engineer

\*Denotes those present at exit interview.

2. Training

There has been no change in the status of general employee training and retraining in Emergency Plan response, Radiation Protection, and Administrative Procedures since the last inspection. The required training and retraining is described in Administrative Procedure B-2. Training courses and materials have been prepared as well as a computerized system of training records described in an earlier inspection report. General employee training was deferred while emphasis was placed on operator training. The training staff realistically estimated that all required general employee training and retraining could be accomplished in a period of 2-1/2 months once training begins.

No items of noncompliance or deviations were identified.

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3. Radiation Protection - Organization, Staffing, and Training

At the time of the last inspection (May 1979 - 50-275/79-10) the Radiation and Process Monitor (RPM) staff consisted of eight trained and one untrained RPM's with the planned addition of two more RPM's. At the time of this inspection, the staff consisted of three trained, three partially trained RPM's and one acting RPM Foreman. Six additional RPM candidates had been identified but not hired. The planned RPM staffing goal had been expanded to a total of twenty. The supervisory staff remained unchanged with two Chem and Rad Protection Engineers (CRPE), one of whom was designated as a Senior CRPE. The supervisory staff is to be increased by the addition of one CRPE and one RPM foreman. In a telephone conversation on February 20, 1980, J. Boots, Senior CRPE, was informed of NRC Regional office concerns that the existing and the near future RPM staff might not satisfy the training and experience requirements for operation contained in the proposed Technical Specifications and ANSI 18.1-1971. Mr. Boots acknowledged an awareness of the possible problem and indicated that a resolution was being actively pursued.

No items of noncompliance or deviations were identified.

4. Instruments and Equipment - Radiation Protection -  
Emergency Response - Environmental Protection

PG and E has contracted for a major augmentation of the nuclear measurement and records systems at the Diablo Canyon and Humboldt Bay Nuclear Power Plants and the Department of Engineering Research with additional offsite facilities in the Diablo Canyon area. The installation of portions of the system is scheduled to begin in April 1980. The systems are based on the Hewlett-Packard (HP) 9845T and 1000 Mini desk top computers. The 9845T incorporates a full keyboard, graphics CRT and fast thermal printer. The existing Diablo counting room 11% efficient GeLi detector will be augmented with a 15% efficient Ge intrinsic detector, two multi channel analyzers (MCA), two HP 9845T's, two 20 M Byte cartridge disks and a hard copy printer. The Chemistry Lab will have a terminal keyboard, CRT and thermal printer. These systems will be dedicated to coolant and liquid and gaseous analysis and permit and report generation.

The radiation protection system will include a 15% efficient Ge intrinsic detector and MCA for air sample and smear analysis. In addition, an HP 1000 Mini computer and TLD reader (estimating exposures at access control), 20 M. Byte cartridge disk, Rad Protection office or Administrative building terminal (keyboard CRT and thermal printer), Rad Protection Office printer, plotter and a Manual TLD reader will be dedicated to dosimetry and ALARA and the TLD program which is to be instituted.

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The Onsite Emergency Response Center and Technical Support Center will include inputs from several effluent monitors, meteorological sensors and eventually a series of environmental pressurized ion chambers to a data acquisition and computing system feeding a system which will include a 15% efficient Ge intrinsic detector and MCA, auto TLD reader, 20 M Byte cartridge disk, HP 9845T and color display terminal for presentation of plume boundaries and isodose plots on stored site and local maps. Approximately 2000 TLD badges and 100 TLD rings will be available for the implementation of a TLD monitoring program. Most of the previously described equipment will be hardwire interconnected or interconnectable by telephone/Modem.

In addition, a laboratory van, equipped with a 15% Ge intrinsic detector, NaI(Tl) detector, MCA and HP 9845T computer as well as various samplers and other equipment will be located at the San Luis Obispo County Sheriff's Office, a location remote from the plant and accessible to plant personnel responding from offsite. A separate laboratory is proposed for location on the campus of the California State Polytechnic University.

Similar equipment is to be installed at Humboldt Bay Power Plant in the counting room and also at the Department of Engineering Research.

The licensee's staff was informed that a letter to the Director, Region V, USNRC was required at least 30 days prior to the implementation of a respiratory protection program as required by 10CFR20.103(e).

No items of noncompliance or deviations were identified.

5. Preoperational Testing

The status of outstanding preoperational tests selected for review were examined. In those cases where preoperational tests had been completed, approved and accepted by operations, test results were examined to assure that the test results were within the previously established acceptance criteria and, where applicable, deviations from acceptance criteria were properly identified and disposed in accordance with the licensee's administrative procedures. In those cases where preoperational tests were not complete, the current status was determined.

<u>TEST NO.</u>	<u>TEST DESCRIPTION AND STATUS</u>
19.2.12	<u>Flush and Preoperational Spent Resin System</u> Test complete except for Startup Problem Report 596. Resin Level Indicators for Spent Resin Tanks 0-1 and 0-2, level transmitters LT-31 and 33 do not work. - Not complete.

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19.3                    Liquid Rad Waste Performance Demonstration  
Test complete and accepted by Operations. Waste evaporator performance concentrated from 219 to 5984 ppm Boron - distillate <3 to <1 ppm (boron), Sp. Cond. (umhos) - concentrate 150 to 450 distillate 5.7 to 2.15

19.4                    Spent Filter Transfer System  
Transport of filter casks by dolly and elevator posed possible safety problems. Proposed resolutions discussed with operations. When corrective actions complete, should be acceptable to operations. - Not complete.

23.1                    Main Control Room Heating, Ventilating and Air Conditioning System  
Test complete and accepted by operations. Mode 3 operation (isolation) verified on receipt of signal from Unit 1 and 2 Radiation Monitors 1 & 2-RM-25 and 26, chlorine monitors, monitors 19 and 20 and on receipt of Unit 1 and 2 containment isolation signal.

Addendum 1            Filter Use Time Totalizer  
Not accepted by operations. Not complete.

Addendum 2            Control Room Pressurization System  
(not yet written)  
Existing system unable to maintain 1/4 inch water pressure in control room. Pressurization system with selectable air intake locations being constructed. On completion, retest of Control Room system planned. Not complete.

23.3                    Preoperational Test of Logic Controls for Auxiliary and Fuel Handling Building Ventilation System  
Testing complete - results in final typing - Not accepted by operations. Not complete.

24.3                    Gaseous Radwaste System Purge  
Purge oxygen and replace with nitrogen. Complete accepted by operations.

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Radiation Monitoring System

Calibration of instruments by Science Applications Inc. (SAI) including the Plant Vent Iodine monitors (IR24) Steam Generator Blowdown monitors (IR 19 and 27) and four Continuous Air Monitors (CAM's) has been completed. Westinghouse system onsite calibrations have been completed; however, documentation was not complete and additional information had been requested. The licensee was expecting work to be substantially complete by the second or third week of March. Startup problem report 609 concerning the installation of a desensitizing kit on the Gas Decay Tank discharge monitor (IR22) had been completed. Test not complete.

Incomplete test results will be reviewed in a subsequent inspection report (80-04-01).

No items of noncompliance or deviations were identified.

6. Procedures - Waste Management

A number of procedures, some of which had previously been examined and some which had not been previously completed were being revised.

- A-4 Chemistry Laboratory Calibration Schedule
- A-5 Liquid Radwaste Discharge Management
- A-6 Gaseous Radwaste Discharge Management
- E-4 Outfall Sampling
- E-6 Secondary System Sampling
- G-11 Packaging, Storage, and Inventory of Solid Radioactive Waste

The revised procedures will be examined during a subsequent inspection (80-04-02). The licensee has prepared an Offsite Dose Calculation Manual (ODCM) which has been submitted to NRC headquarters. The ODCM was being revised at the time of the inspection.

No items of noncompliance or deviations were identified.

7. Followup on Bulletins and Circulars

The inspector verified the receipt and discussed action with respect to two Circulars with licensee representatives.



Circular 79-15 - The licensee had received the circular; however, no action was required since the type of respiratory equipment discussed was not used or available onsite.

Circular 79-21 - The licensee had prepared a memorandum addressing Unplanned Releases. The memorandum was discussed with all departments and was to be presented to the PSRC at the February meeting.

No items of noncompliance or deviations were identified.

8. Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on February 15, 1980. The licensee was informed that no items of noncompliance had been identified. The inspector summarized the inspection scope and findings.

