

U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report Nos. 50-275/85-05, 50-323/85-06
Docket Nos. 50-275 and 50-323
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: San Luis Obispo County, California
Inspection conducted: January 21-25, 1985

Inspectors: *Philip Qualls* 2/21/85
P. Qualls, Reactor Inspector Date Signed

J. Burdoin 2/21/85
J. Burdoin, Reactor Inspector Date Signed

Approved By: *Albert Young Jr.* 2-21-85
T. Young, Jr., Chief, Engineering Section Date Signed

R. Dodds 2/27/85
R. Dodds, Chief, Reactor Projects Section I Date Signed

Summary:

Inspection on January 21-25, 1985 (Report 50-275/85-05 and 50-323/85-06)

Areas Inspected: Unannounced inspection by a regional inspector of the implementation of the Diablo Canyon nuclear plant fire protection program. The inspection involved 43 hours onsite by one NRC inspector.

Results: Of the areas examined no violations or deviations were identified. One violation (See paragraph 8) is identified as a result of an inspection by Lawrence Livermore Lab for the NRC.

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DETAILS

1. Persons Contacted

- *R. Kohout, Emergency Safety Services Supervisor
C. Johnson, Diablo Canyon Fire Marshall
- *L. Womack, NPO/Engineering Manager
- *D. Taggart, Acting Director, Quality Support, QA
- *R. Flohaug, Lead Engineer, Quality Support, QA
- *W. Rapp, OSRG, Chairman
- *K. Doss, NPO/OSRG
- *E. Conway, NPO/Pers and Gen SVCS
- *J. Sexton, NPO/Operations
- *P. Baum, NPO/Technical Services Power Production Engineer
- *B. Giffin, NPO/GO
- *K. Levitt, NPO/GO Materials
- *T. Martin, NPO/Training
- *W. Wogsland, NPO/NPG/GO
- *R. Weinberg, PG&E News Services
- *R. Thornberry, PG&E Plant Manager
- *J. Gisalon, PG&E Assistant Plant Manager
- *W. Kaefer, PG&E Assistant Plant Manager
- *O. Sundquist, WPC
- *L. Fisher, NPO/Security
- *R. Todaro, NPO/Security
- *R. Cramins, NPO, Quality Control
- *D. Mikleesh, NPO/Maintenance
- *W. Crockett, NPO/I&C
- *M. Boots, NPO/C&RP
- *Mr. Patterson, Plant Superintendent
- *Mr. Shiffer, Vice President

*Indicates those individuals attending the exit interview on January 25, 1985.

In addition to the individuals noted above, the inspector interviewed other members of the licensee's and contractor's staff.

2. Licensee Action on Previous Findings

a. (Closed) (50-275/82-40-03) Onsite Training

The licensee has upgraded his onsite training for offsite fire protection personnel. An exercise was recently held involving several offsite agencies. The exercise involved burning a large plywood building that needed to be removed from the site and coordinating the efforts of the various agencies. This type of offsite training allows the agencies an opportunity to work together and to ensure that the equipment that each provides is compatible.

b. (Closed) (50-275/82-40-06) Unrated Fire Door

The doors to the SSPS room have been accepted as satisfactory by NRR in SSER-23, if a sprinkler is installed to protect the door. The



inspector verified that the sprinklers were installed. This item is closed.

c. (Closed) (50-275/82-40-10) Fire Pre-Plans

The licensee has completed the pre-fire plans as planned. In addition, the licensee is adding drawings to each plan to show the location of fire fighting equipment, access and egress routes and locations of special hazards. The drawings are not yet complete and will be examined at a later inspection (50-275/85-05-01).

d. (Closed) (50-275/82-40-12) Emergency Lighting Surveillance Test

The inspector reviewed the record of completed surveillance procedures associated with the fire protection system. Based on documents examined it appeared that all required surveillance testing and routine maintenance on fire protection equipment was being performed. This item is closed.

e. (Open) (50-275/82-40-14) Heat Shields

The inspector was concerned that oil, if it overflowed the lube oil collection tank, would flow around the open collection drain around the reactor vessel and, if burning, would damage pressurizer sensing lines LT 461 and 462, PT 457, 458A and 458B, LT 460, and PT 456. The inspector felt that heat shields should be placed to protect these lines. This will be examined in a later inspection.

f. (Closed) (50-275/82-40-15) RHR Duct

The exemption requested by the licensee has been approved by NRR in SSER 23. This item is closed.

g. (Closed) (50-275/83-39-01) Staffing

The organization as described in the previous inspection report (50-275/83-39) has been filled. The addition of the Fire Marshall, in particular, has really resulted in an improvement of the program implementation at Diablo Canyon. This item is closed.

h. (Closed) (50-275/83-39-02) Fire Brigade Makeup Training

The licensee has improved his procedure for monitoring fire brigade training. They have also implemented a method to make up the required training followed by a test prepared by the Fire Marshall. This item is closed.

i. (Closed) (50-275/83-39-03) Fire Watch Training

During the inspection the inspector questioned fire watches assigned at various locations throughout the plant. The fire watches questioned appeared alert and knowledgeable and appeared to understand the requirements of their job. This item is closed.



j. (Closed) (50-275/83-39-04) Fire Watch Program

The inspector reviewed the fire watch training program, the training program appeared to be adequate to meet the requirements. This item is closed.

k. (Closed) (50-275/83-39-07) Emergency Lighting

The results of the emergency lighting walkdown was examined by the inspector. The walkdown identified several weakness which appeared to have been satisfactorily corrected. This item is closed.

l. (Closed) (50-275/83-39-08) Operator Actions

The inspector was concerned that NPO did not have sufficient input into the procedures outlining operator emergency response that had been committed to by engineering. However, NPO was the organization which wrote EPM-10 outlining the response. This item is closed.

m. (Closed) (50-275/83-39-09) Fire Damper

The exemption requests for areas 3-H-1, 3-Q-1 and 3-Q-2 have been approved by NRR and is listed in SSER-23. This item is closed.

n. (Closed) (50-275/83-39-10) and (50-275/83-39-11) Welding Permits

The inspector observed several examples of welding and Hot Work in Unit 1. The welding procedures appeared to have been followed and the proper permits were posted. This item is closed.

o. (Closed) (50-275/84-31-01) Fire Door Bolts

The inspector reviewed the licensees corrective actions on inspection and replacement of the potentially damaged door anchor bolts as stated in PGandE Letter No. DCL-84-349. The actions appear to have been done in a timely manner and adequate to correct the potential problem. This item is closed.

3. Procedures

The inspector examined the fire protection procedures for the station. One potential weakness was identified. Although the hot work permit system seemed to be functioning properly, it appeared that operations personnel in the control room were not kept informed as to the location of approved hot work. A fire watch specialist working for the fire Marshall keeps a notebook listing the approved hot work, but no reference is provided for the personnel in the control room. The inspector feels that this is important, because "Hot Work" is a potential source of a fire and the Plant Operators should have early access to this record. (50-275/85-05-02; 50-323/85-06-01, Open)



4. QA Audit

The recent triennial QA audit was reviewed. The followup appeared to have been conducted in a timely manner and the problems identified were acted upon.

5. Fire Brigade

The fire brigade organization appeared to meet the licensee commitments. The fire brigade training appeared to have been conducted in a timely manner.

6. Plant Tour

The inspector conducted an indepth tour of Unit 1, with the following results:

a. Anti-C Storage

The inspector observed the storage of clean anti-contamination clothing and absorbent pads in open cabinets in the 64, 73 and 85 foot levels of the auxiliary building. Although an attempt had apparently been made to locate these in isolated portions of the fire areas, they are, however, a source of Class A combustible stored inside of the plant vital areas. It was unclear to the inspector that this material had been authorized to be stored in these areas and, in any case, the proper storage method would be to store the material in a closed metal cabinet vice on open shelves. This will be examined at a later inspection (50-275/85-05-03) (Open).

b. Computer Room Housekeeping

In the Unit 1 computer room, the inspector found a cabinet covered with plastic on a base of apparently untreated wood. There were a number of cardboard boxes inside of the room and there were some paper air filters stored on top of the metal locker. Although none of these items appear to be a violation, the NRC position as stated in BTP CMEB 9.5.1 Section C.2 is that these practices should be prohibited. This will be examined at a later inspection (50-275/85-05-04) (Open), and will be examined for Unit 2 procedures (50-323/85-06-02) (Open).

c. SSPS Room

A trap door ceiling tile was found open in the SSPS room. The SSPS is protected by a Halon system designed to reach a concentration of five percent Halon in the volume of the room beneath the ceiling. With the tile open the volume of the room is increased by about 50 percent and the Halon System was not designed for the increased volume. The inspector was unable to determine how long the opening existed. The Halon system is required by Tech. Specs. to be operable whenever the equipment that it protects is operable. The SSPS is required to be operable in Modes 1 through 4. At the time of the inspection, the reactor was in Mode 5 and the inspector could not



determine that the ceiling was opened prior to the outage while they were in Mode 4, so this is not a violation. Licensee personnel committed to lock this trapdoor and let the Shift Manager control the key for access to the space above the room. This will be examined at a later inspection (50-275/85-05-05).

d. Fire Doors

The inspector found door 345 had a broken latch, which was repaired during the inspection week. This was in an area where the licensee was conducting hourly fire inspections so is not a violation.

The inspector also observed a number of doors which failed to close and latch due to the ventilation flow through the door during the time that it was open. The failure of these doors to close and latch is not a violation, because they were in an area where the hourly fire tours are conducted. Fire door latching will be reviewed at a later inspection (50-275/85-05-06) (Open).

e. Penetration Seals

The inspector observed a number of penetration seals in Unit 2 which appeared to be degraded. Licensee personnel said that the final walkdown inspection and acceptance of Unit 2 fire seals has not yet been accomplished. The inspector will examine these at a later inspection (50-323/85-06-03) (Open).

The inspector found a penetration seal above door B-21, around the sprinkler pipe, which was no longer in place. The pyrocrete seal had apparently been damaged due to construction in the area. This is not a violation, because there is an hourly fire inspection conducted in this area. The reinstallation will be inspected at a later date (50-275/85-05-06) (Open).

f. Hot Work

The inspector observed several jobs where welding was in progress. The proper permit and procedures appeared to be followed and the fire watch appeared knowledgeable.

7. Inspection of SSER-27 Commitments

In SSER-27, the NRC staff required that nine modifications be completed prior to exceeding five percent rated power. The inspector verified completion of the following eight.

- a. That a smoke detection system is installed above the dropped ceiling in the chemical laboratory and offices (fire area 4-A).
- b. That fire detection systems are installed in the G bus compartment (fire area 4-A-1) and in the H bus compartment (fire area 4-A-2).



- c. That the redundant diesel generator fuel transfer pump circuits in the shower, locker and access control (fire area 4-B) are separated by a one hour barrier.
- d. That the control circuits for the diesel generators in the corridor outside of the diesel generator rooms (fire area 11-D) are separated by a two hour barrier.
- e. That the personnel and equipment hatch at the 107 feet level of the diesel generator room (fire areas 14-E) has been upgraded. There is now a concrete wall with a three hour door.
- f. That the unlabeled fire door on the SSPS rooms have a sprinkler installed for protection.
- g. That the emergency lighting has been checked and upgraded (Fire Areas/Zones CR-1, 3-R, 1, 6-A-1, 6-A-2, 6-A-3, 7-A, 5-A-4, elevation 104, TB-4, TB-5, TB-6, 3-Q-1, 3-Q-2, TB-1, TB-2, TB-3, 3-B3, elevation 100, 5-A-1, 5-A-2, 5-A-3).

8. 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.

During inspections in December 1984/January 1985 of modifications to electrical raceway supports in Unit 2, the following violation to NRC requirements was identified: (Note: the violation has several parts).

a) Support 2F-117-3-90 M.C.-28

The support drawing MC-28 called for the installation of a P-1001/C-41 unistrut with two clamps. However, a P-1001 with one clamp had been installed.

b) Support 1178-H-100-4-63

The installation drawing required that a washer be installed under the bolt which attached a S-6 brace to the unistrut support. The washer distributes the load when the bolt is torqued to prevent deforming the end tab of S-6 brace. The end tab was found to be deformed.

c) Support 2A-119-6-20

A six inch weld on six inch long angle iron added to stiffen the support was found to be undersized for 25 percent (1 1/2") of the length of the weld.

The above supports had been inspected and accepted by the quality control inspectors.



The above discrepancies were not processed in accordance with H. P. Foley Quality Control Procedure QCPE-9, which states in paragraph 3.1, "The Project Manager has the responsibility for employing all measures necessary to accomplish the work in accordance with the requirements of the contract documents and this procedures."

These failures to perform work in accordance with approved procedures are considered to be an apparent violation of 10 CFR 50, Appendix B, Criterion V, "Instructions, procedures, and drawings" (50-323/85-06-04).

One violation of NRC requirements was identified.

9. Exit Meeting

An exit meeting was held with members of the plant staff on January 25, 1985. The items listed in this report were discussed at that time.

