ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION REGION IV

Inspection Report: 50-275/96-04 50-323/96-04

Licenses: DPR-80 DPR-82

Licensee: Pacific Gas and Electric Company 77 Beale Street, Room 1451 P.O. Box 770000 San Francisco, California

Facility Name: Diablo Canyon Nuclear Power Plant, Units 1 and 2

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

Inspection Conducted: February 26 through March 1, 1996

Inspector: L. T. Ricketson, P.E., Senior Radiation Specialist Plant Support Branch

Blaine Murray, Chief, Plant Support Branch Division of Reactor Safety 3/19/96 Approved:

Inspection Summary

<u>Areas Inspected (Units 1 and 2)</u>: Routine, announced inspection of the radioactive effluent management program including: audits and appraisals, program changes, process and effluent monitors, dose commitment, engineered safety feature air cleaning systems, training and qualifications, effectiveness of licensee controls, followup on previous violations, and a review of the Updated Final Safety Analysis Report was conducted.

Results (Units 1 and 2):

Plant Support

- Adequate oversight of the radioactive effluent management program was implemented. Thorough audits were performed by the quality assurance organization on an annual basis; however, additional oversight by means of quality assurance surveillances was minimal (Section 1.1).
- A good program was in place to response test and calibrate liquid and gaseous radioactive effluent monitors (Section 1.3).

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- A good effluent management program was implemented. Sampling and analyses of effluent streams were performed as required, and offsite doses were well below Technical Specification limits (Section 1.4).
- A good program had been established concerning inplace and laboratory testing of engineered safety feature air cleaning systems and system adsorbers. The use of conservative laboratory testing methodology indicated good management support for the air clean systems program (Section 1.5).
- Chemistry personnel participating in the effluent management program were appropriately trained and qualified for the tasks performed (Section 1.6).
- An effective corrective action program was in place to document and correct problems associated with the areas inspected (Section 1.7).

Summary of Inspection Findings:

• Violations 323/9311-02, 323/9311-03. and 323/9311-04 were closed (Section 2).

<u>Attachment</u>:

Attachment - Persons Contacted and Exit Meeting



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DETAILS

RADIOACTIVE WASTE TREATMENT AND EFFLUENT MONITORING (84750)

1.1 <u>Audits and Appraisals</u>

The inspector reviewed various assessment activities to verify compliance with Technical Specification 6.5.3.8 and agreement with the commitments in Chapter 17 of the Updated Final Safety Analysis Report.

The inspector reviewed the 1994 and 1995 quality assurance audits of the radioactive effluent management program and noted that the audit team included several people with experience related to area of review. The inspector also noted that the audit identified several deficiencies in the effluent management program. Audit findings were appropriately addressed by the chemistry department. The auditors concluded that, "... while many a '. . . while many areas of the offsite dose calculation procedure and radiological effluents programs are well run, increased management attention is warranted in the areas of procedural compliance, commitment tracking and implementation, and attention to detail." Because of the conclusion reached, the inspector asked if subsequent surveillances or observations were performed by the quality assurance organization to increase management oversight. Quality assurance representatives stated that, other than for the purpose of verifying that actions were implemented to correct audit findings, no additional quality assurance reviews or assessments were conducted in the area of radioactive effluent management. Quality assurance personnel indicated that the lack of supplemental assessments during the remainder of the year was linked to the quality assurance staffing level. The staff was fully utilized fulfilling regulatory commitments. The inspector also confirmed that there had been no other independent assessments of the radioactive effluent management program.

The inspector concluded that the audits were thorough reviews. Followup of selected items by the inspector did not identify a recurrence of the problems identified by the audit. Based on the strength of the annual audits, the inspector concluded that oversight of the effluent management program was adequate.

1.2 Program Changes

There were no major changes to the organization or program other than the plant wide down-sizing. The inspector noted no problems attributable to the reduction in staff.

In accordance with Generic Letter 89-01, the licensee removed requirements relating to effluent management and effluent monitoring from the Technical Specifications. However, the licensee's license amendment deviated slightly





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from the guidance included with the generic letter. Instead of relocating the radiological effluent technical specifications to a single document known as the Offsite Dose Calculation Manual, the licensee relocated the information into five documents consisting of policy directives. interdepartmental administrative procedures, departmental administrative procedures, and implementing procedures. These documents included:

CY2.ID1, "Radiological Monitoring and Controls Program" CY2.ID1, "Radiological Environmental Monitoring Program" CY2, "Radiological Effluent Control Program" CAP A-8, "Offsite Dose Calculation Procedure" TES A-7, "Environmental Radiological Monitoring Procedure"

The inspector reviewed these documents and commented to licensee representatives that identifying program requirements appeared cumbersome. Licensee representatives acknowledged this and stated that the licensee planned to submit a license amendment request, by January 1, 1997, that would allow it to use standard Technical Specifications. In doing so, the licensee would adopt the use of a single document known as the Offsite Dose Calculation Manual and simplify the process of identifying and following program requirements. The inspector stated that the change would be reviewed during a future inspection.

Changes to the procedures were included in the annual effluent reports, as required by Technical Specification 6.14. The inspector reviewed the changes and determined that they did not merit further discussion.

1.3 Process and Effluent Radiation Monitoring

The inspectors reviewed the use, response testing, and calibration of effluent monitors and interviewed personnel from the chemistry department and the engineering services group to determine compliance with the requirements in Section 6 of CY2.ID1, "Radiological Monitoring and Controls Program," and agreement with the commitments in Sections 11.2, 11.3, and 11.4 of the Updated Final Safety Analysis Report.

The inspector reviewed the licensee's methodology for determining radiation monitor setpoints and verified that the proper setpoints were installed for selected effluent radiation monitors.

The inspector reviewed calibration records of liquid and gaseous effluent radiation monitors and confirmed that the calibrations had been performed at the required intervals. Radioactive sources of appropriate geometry and energies were used for the calibrations.



The inspector confirmed that the licensee maintained a program to correlate radioactive effluent sample analyses results to continuous monitors' readings, as described in Regulatory Guide 1.21, Section C.5.

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1.4 Dose Commitments

The inspector reviewed the 1993 and 1994 annual effluent reports and verified that the licensee complied with the dose commitment limits of Section 6 of CY2.ID1. "Radiological Monitoring and Controls Program."

No observation of sampling and analysis, release permit preparation, or operational effluent releases was performed by the inspector during the inspection period because no releases were conducted by the licensee. The inspector reviewed selected examples of previous release permits and examined post release dose calculations and identified no problems.

1.5 <u>Air Filtration Systems</u>

The inspector reviewed records of surveillance testing, performed walkdowns of air cleaning systems, and interviewed systems engineering personnel to determine compliance with the requirements of Unit 1 Technical Specifications 4.7.5, 4.7.6, and 4.9.12 and agreement with Updated Final Safety Analysis Report Sections 9.4.1, 9.4.2, and 9.4.4.

With licensee representatives, the inspectors performed walkdowns of air cleaning systems in Units 1 and 2. The units observed included those for the control rooms, the auxiliary building, and the fuel handling areas. No problems involving the physical conditions of the air cleaning systems were identified.

The inspectors reviewed records of in-place testing of high efficiency particulate air filters and charcoal adsorbers as well as laboratory tests of charcoal samples and found that those systems required by Technical Specifications had been tested at the proper interval. Testing and charcoal sampling were performed by the licensee's systems engineers. Laboratory testing of charcoal samples was performed by a vendor.

The inspectors reviewed air cleaning system surveillance procedures and determined that the procedures incorporated guidance from ANSI 510-1980. "Standard for Testing of Nuclear Air Cleaning Systems." to ensure that inplace and laboratory testing of filters and adsorbers were performed properly. During the first half of 1994, the licensee changed laboratory charcoal testing criteria from that of ASTM D3803-1979 to that of ASTM D3803-1989. The later criteria is more conservative because it requires charcoal to be tested at 30 degrees Celsius; the 1979 criteria allowed testing of charcoal at 80 degrees Celsius.

The licensee initiated Licensee Event Reports 2-94-003-01 and 2-94-005-00 when it was determined that charcoal samples from the auxiliary building and the fuel handling building, respectively, did not meet the acceptance criteria of ASTM D3803-1989 and, therefore, they did not comply with Technical Specifications 4.7.6 and 4.9.12. The licensee had similar samples tested to







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the criteria in ASTM D3803-1979, and the charcoal samples met the older acceptance criteria. It was determined, that when the charcoal was heated to a higher temperature, potential pollutants were driven off. This allowed a greater amount of the surface area to become exposed again, and the test results indicated a greater organic iodine adsorption and a lower penetration level.

The licensee replaced the charcoal in the auxiliary building and the E-5 absorber bank in the Unit 2 fuel handling building and made information available to inform other sites of the licensee's experience. The inspector determined that the licensee acted conservatively in selecting to follow the guidance in the latest testing standard even though it resulted in the accelerated changeout of the charcoal adsorber. This indicated strong management support for this area of inspection.

1.6 <u>Training and Qualifications</u>

The inspector determined that release permits were prepared by chemistry foremen. The inspector reviewed selected records of training and confirmed that all individuals reviewed had successfully completed both formal and on-the-job training requirements and were qualified to performed such tasks.

1.7 <u>Effectiveness of Licensee Controls</u>

The inspectors reviewed examples of action requests related to radioactive effluent and air cleaning system activities. The corrective actions addressed the identified causes. Responses to conditions from the responsible groups were made in a timely manner.

- 2 FOLLOWUP (92904)
- 2.1 <u>(Closed) Violation 323/9311-02: No Program for Post Accident Sampling</u> System Reactor Coolant Hydrogen

The inspector verified, through document review, that the licensee implemented the corrective actions listed in the June 22, 1993, reply to the Notice of Violation.

2.2 <u>(Closed) Violation 323/9311-03: Failure to Perform 50.59 Evaluation for</u> <u>Post Accident Sampling System</u>

The inspector verified that the licensee implemented the corrective actions listed in the June 22, 1993, reply to the Notice of Violation.

2.3 <u>(Closed) Violation 323/9311-04: No Program for Post Accident Sampling</u> System Plant Vent Iodines and Particulates

The inspector verified that the licensee implemented the corrective actions listed in the June 22, 1993, reply to the Notice of Violation.



3 REVIEW OF UPDATED FINAL SAFETY ANALYSIS REPORT COMMITMENTS

A recent discovery of a licensee operating their facility in a manner contrary to the Updated Final Safety Analysis Report description highlighted the need for a special focused review that compares plant practices, procedures and/or parameters to the Updated Final Safety Analysis Report description. While performing the inspections discussed in this report, the inspector reviewed the applicable portions of the Updated Final Safety Analysis Report that related to the areas inspected. The inspector verified that the Updated Final Safety Analysis Report wording was consistent with the observed plant practices, procedures and/or parameters.

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ATTACHMENT

1 PERSONS CONTACTED

1.1 Licensee Personnel

- R. Allen, Engineer, Engineering Services/Balance of Plant

- K. Brieze, Auditor, Quality Assurance
 D. Chen, Chemist, Chemistry and Environmental Operations
 *J. Gardner, Senior Chemical Engineer, Chemistry and Environmental Operations
- *C. Harbor, NRC Interface, Regulatory Services
- *J. Hays, Director, Chemistry and Environment Operations *J. Knemeyer, Chemical Engineer, Chemistry and Environmental Operations *F. Ling, Engineer, Engineering Services/Balance of Plant
- *K. O'Neil, Engineer, Engineering Services/Instruments and Controls *R. Powers, Acting Plant Manager
- *R. Waltos, Director, Engineering Services/Balance of Plant
- *J. Young, Director, Quality Assurance

1.2 NRC Personnel

- *M. Tschiltz, Senior Resident Inspector
- S. Boynton, Resident Inspector

*Denotes personnel that attended the exit meeting. In addition to the personnel listed, the inspector contacted other personnel during this inspection period.

2 EXIT MEETING

An exit meeting was conducted on March 1, 1996. During this meeting, the inspector reviewed the scope and findings of the report. The licensee did not express a position on the inspection findings documented in this report. The licensee did not identify as proprietary, any information provided to, or reviewed by the inspector.



