U. S. NUCLEAR REGULATORY COMMISSION

REGION V

Report Nos. 50-275/87-30 and 50-323/87-30

Docket Nos. 50-275 and 50-323

License Nos. DPR-80 and DPR-82

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: July 27-31, 1987

Inspector: C. A. Hooker, Radiation Specialist — 8/27/87 Date Signed

Approved by: G. P. Yuhas, Chief, Facilities Radiological Protection Section — 8/27/87 Date Signed

Summary:

Inspection on July 27-31, 1987 (Report Nos. 50-275/87-30 and 50-323/87-30)

Areas Inspected: Routine unannounced inspection on previous inspection findings, organization and management, training and qualifications, licensee identified problems and reports, followup on IE Information Notices, and facility tours. Inspection procedures addressed included 30703, 83722, 83723, 92701, and 93702.

Results: Of the areas inspected, one apparent violation was identified in one area: Technical Specification 6.8.1., failure to follow procedures (paragraph 3.B.(1)).

DETAILS

1. Persons Contacted

A. Pacific Gas and Electric Company (PG&E) Personnel

*J. D. Townsend, Acting Plant Manager
*W. B. McLane, Acting Assistant Plant Manager, Technical Support
*L. F. Womack, Operations Manager, Acting Assistant Plant Manager, Generation
*R. P. Powers, Acting Manager, Chemistry and Radiation Protection (C&RP), Supervisor of Radiation Protection (RP)
*J. E. Gardner, Senior C&RP Engineer, Supervisor of Chemistry
S. R. Fridley, Senior Operations Supervisor
*M. T. Hug, Regulatory Compliance Engineer
D. Bell, Quality Control (QC) Supervisor, Nuclear Engineering and Construction Services/General Construction
K. R. Bieze, Senior Training Instructor, C&RP
A. I. Dame, Access Supervisor
G. L. Dehart, Instructor, General Employee Training (GET)
R. M. McVicker, QC Lead Specialist, PG&E Diablo Canyon Power Plant (DCPP)
L. T. Moretti, Acting General Foreman, RP
R. J. Harris, Quality Assurance (QA) Engineer/Administrator

B. NRC Contacts

M. L. Padovan, Acting Senior Resident Inspector
K. E. Johnston, Resident Inspector

*Denotes those present at the exit interview on July 31, 1987.

In addition to the individuals identified above, the inspector met and held discussions with other members of the licensee's and contractor's staffs.

2. Licensee Action on Previous Inspection Findings

A. (Closed) Followup (50-275/87-14-01 and 50-323/87-13-01): Inspection Report Nos. 50-275/87-14 and 50-323/87-13 documented the need to examine the effectiveness of the licensee's efforts to reduce radioactivity in liquid discharges. The licensee had released a total of 11.11 curies of radioactivity from liquid discharges in 1986. The national average per plant is about 0.5 curies per year. The licensee established a goal of 5.0 curies, total, from Units 1 and 2 for 1987. Based on review of a draft progress report, the inspector noted that from January 1, 1987, through May 31, 1987, the licensee had released a total of 1.068 curies of activity from liquid discharges. Based on discussions with cognizant licensee representatives, it was noted that the reduction was due to better utilization of their liquid radwaste process system (filters and ion exchangers) prior to discharges. The licensee expects to better

their 1987 goal by more than 50%. The inspector considers this matter closed.

B. (Open) Followup (50-323/87-21-04): Inspection Report No. 50-323/87-21 documented the inspector's need to examine the licensee's Quality Hotline (QH) investigation, No. QCSR-87-005, involving radiation protection concerns of an individual working in the radiological controlled area (RCA) of Unit 2 during the refueling outage. Based on a discussion with the licensee's site representative responsible for the QH service, the inspector noted that very little progress had been made to resolve this matter. Based on this discussion, information documented in Inspection Report No. 50-323/87-21, paragraph 4., and review of licensee documents concerning this matter, the following observations were made by the inspector:

- On April 14, 1987, an NRC resident inspector was informed of the concerns by an individual. The individual stated that he would take his concerns to the licensee's QH for resolution.

- The QH issued a Quality Concern Summary Report, No. QCSR-87-005, dated April 20, 1987, with the individuals concerns, to DCPP's Plant Manager for investigation and response to the concerns. This matter was assigned to the RP Department for resolution.

- A note dated May 14, 1987, with attachment, from DCPP's Plant Manager to the QH representative stated, in part, that more information was needed before an investigation could proceed and instead of trading memoranda, the C&RP Manager should be contacted to be sure that all of the information was obtained to prepare a good response to the concerns. The attachment to the note outlined information needed to investigate the problem.

- The QH representative stated that after receipt of the note, he called the C&RP Manager who was out at the time and left a message for a return call.

- As of July 29, 2987, there had been no communication between the QH service and the C&RP Department and/or DCPP management regarding this matter.

At the exit meeting on July 31, 1987, the inspector expressed concern with the length of time and apparent lack of communication between the QH service and DCPP in this particular case. The inspector also stated, based on the above observations, that it may be warranted for PG&E to evaluate the effectiveness of their QH program. The licensee acknowledged the inspector's concern and stated, in part, that this matter would be given appropriate attention. This matter remains open.

C. (Closed) Followup (50-323/87-21-03): Inspection Report No. 50-323/87-21 documented the inspector's review of the licensee's on-going investigation involving signature discrepancies on their internal additional exposure authorization form No. 69-11579 and on NRC Form-4 equivalents. Based on review of PG&E's internal audit, Report No. 87-068-99300-2-4(87-004), dated July 11, 1987, this licensee's Nonconformance Report (NCR) No. DC2-87-TC-N061, dated June 1, 1987, and exposure records reviewed (Inspection Report No. 50-323/87-21, paragraph 2.c.), the inspector made the following observations:

- No individual had received any exposure that had not been authorized and no regulatory limits had been exceeded.

- The licensee was unable to identify all individuals involved in the discrepant signatures.

- The contract company involved also investigated this matter and their results, as stated in PG&E's audit report, were that "The Review Team findings indicate the primary cause of the questionable signature problem was perceived pressure on individuals responsible for processing the forms to avoid work interruption. Contributing causes were processing/ administrative requirements unique to DCPP, which contractor personnel were not familiar." PG&E's audit report also stated that their review supported the contractor's findings.

Based on the above observations and a review of a draft report of DCPP's proposed corrective actions and those already implemented, the inspector had no further concerns regarding this matter.

3. C&RP, Organization, and Management

The inspector reviewed the current C&RP organization, staff position assignments, and position descriptions to determine the licensee's compliance with Technical Specifications (TS) 6.2.2 and 6.3, FSAR Section 13.1.3.1 commitments and licensee procedures.

A. Organization and Staffing

The licensee's organizational structure in these areas has remained substantially unchanged since the last inspection in this area (Report Nos. 50-275/86-19 and 50-323/86-19), which described the organizational structure. The C&RP Department is comprised of about 111 permanent PG&E employees with an authorization for 116. The C&RP technical staff is comprised of about 64 permanent Senior C&RP Technicians and six contract Senior RP Technicians to augment the RP Department. The licensee, currently, does not have permanent positions for junior technicians in the C&RP Department; however, contract Junior RP Technicians are utilized to provide assistance during refueling outages. The licensee has plans to have the remaining C&RP Technician vacancies (four) filled by the end of the year. The Dosimetry Department consists of one PG&E Foreman and about 11 contract technicians. The Radwaste Department consists of

a PG&E Foreman, two PG&E Senior, one contract Senior and one contract Junior Technicians, and augmented by about 22 contract deconners.

The licensee continues to rotate the CR&P Technicians, selectively, within the Chemistry and Radiation Protection Departments on a quarterly basis. PG&E management had approved the split of the two groups in August of 1986; however, union agreements have not been settled regarding this matter and have resulted in the licensee's delay in implementing the separation.

The C&RP Department also maintains about 15 C&RP Engineers, and three C&RP System Analysts, all assigned and responsible for specific functional areas.

Based on the observations in this area, the inspector determined that the licensee has met their commitments for staffing a two-unit operating facility.

No violations or deviations were identified.

B. Management Controls

The C&RP Manager's qualifications, responsibilities, and authority to halt operations were clearly defined in Nuclear Plant Administrative Procedure, NPAP C-200, Requirements for Radiation Protection Programs. Operating Procedure, Operating Order O-3, Notification of the Chem/Rad Protection Department, provides guidance to the Operations Department as an aid for communications with the C&RP Department, and outlines examples of types of events when the Operations Department should consult with the C&RP Department.

During this inspection, the inspector observed responsiveness to NRC initiatives. However, the inspector also noted weaknesses in management controls and/or lack of management oversight as follows:

(1) Inspection Report Nos. 50-275/87-21 and 50-323/87-21, paragraph 2.C., page 6, documented the inspector's review and observation with respect to the licensee's Temporary Instruction (TI), Technician Response to Frisker Alarms, dated April 2, 1987, regarding instructions for releasing workers who alarm the new half body personnel contamination monitors (PCMs). In response to these observations, on July 27, 1987, the RP Supervisor informed the inspector that procedural changes had been made so that no individuals would be released until they had cleared the PCMs or ultimately, after a whole-body count (WBC) if the PCMs could not be cleared. This action demonstrated timely response to an NRC initiative.

In review of the licensee's new PCM alarm control, the inspector made the following observations:

- On July 28, 1987, the inspector noted that the TI maintained in the RP Foreman's TI control copy book was the same TI, dated April 2, 1987, reviewed during the previous inspection that had been updated, without any changes to the procedural contents. This TI cover sheet (Form 69-023) had also been provided a number (RPTI-87-0016) and new effective dates of July 21, 1987, to October 21, 1987.

  After a brief discussion with the RP Foreman and RP Technicians, the inspector was provided Radiation Control Procedure RCP D-600, Revision 6, Personnel Decontamination and Evaluation, from the RP's seniors desk with a TI cover sheet that stated to follow the attached instructions, dated July 15, 1987. The effective date was from July 15, 1987, until Plant Staff Review Committee (PSRC) approval of RCP D-600. IN review of this revised procedure (RCP D-600), the inspector noted that the new program regarding PCM alarms and releasing of personnel were as described by the RP Supervisor on July 27, 1987. The inspector was informed by RP representatives from each shift (day, swing, and graveyard) that the TI with the revised RCP D-600 attached was the TI being followed.

- The inspector was informed by the RP staff that the old TI along with all of the TIs in their control book had been updated on July 21, 1987, due to findings during a QC audit. Also, a TI numbering system had been instituted by the RP Department for better control of TIs as a result of the QC audit.

- TS 6.8.1 states, in part, "Written Procedures shall be established, implemented and maintained covering the activities referenced below: a. The applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2. February 1978...." Appendix A, Section 1, Administrative Procedures, Items d. and e. specifically identify, in part, "Procedure Adherence and Procedure Review and Approval." Nuclear Plant Administrative Procedure, NPAP E-4, Procedures, Section 4.10, Temporary Instructions, Item 4.10.1.c. states, in part, "Temporary instructions shall not be used in lieu of an approved procedure...." Item 4.10.3.c. states, in part, "Temporary instructions shall be promptly destroyed or otherwise identified as being obsolete by the instruction originator or his supervisor, when they are no longer in force."

  Based on the above requirements, the inspector determined that the TI, dated July 15, 1987, with the attached unapproved procedure (RCP D-600, Revision 6) was contrary to NPAP E-4, Item 4.10.1.c., and with both of the TIs being in the field was contrary to NPAP E-4, Item 4.10.3.c.

These matters were brought to the licensee's attention who acknowledged the inspector's concerns. The licensee promptly initiated the process to issue a new TI and delete the two TIs in the field.

- On July 30, 1987, the inspector reviewed the QC surveillance, Report No. QCS 87-0251, dated June 8, 1987, Use of Temporary Instructions. This surveillance was conducted May 11-18, 1987, to verify that TIs in use by the C&RP Department were in compliance with NPAP E-4. The surveillance report noted that significant discrepancies were identified. The surveillance identified seven items involving noncompliance with NPAP E-4, Section 4.10, Temporary Instructions. Two Action Requests (ARs) Nos. A0074849 (Chemistry Department) and A0074855 (RP Department) were generated to document the identified discrepancies for ultimate corrective actions. Two of the discrepancies involved: 1) issuance of TIs in lieu of an approved procedure, 56% of the TIs by the RP Department and 26% by the Chemistry Department; and 2) failure to destroy or identify as being obsolete, 13% of the TIs by the RP Department. These findings were similar to those identified by the inspector on July 28, 1987.

  As part of RPs corrective actions to the QC surveillance report, a memorandum dated July 17, 1987, from the RP General Foreman to the RP Engineers and Foreman, stated, in part, "...All Personnel Are Reminded to Refer to NPAP E-4 for the limitations on the use of TIs. TIs are not to be used in Lieu of a Temporary or Permanent Procedure." This memorandum was signed by the General Foreman and Acting RP Supervisor.

  AR No. A0074855, issued to the RP Department indicated that corrective actions had been completed on July 21, 1987. AR No. A0074849, issued to the Chemistry Department, as of July 31, 1987, did not indicate that any corrective actions had been taken.

- On July 30, 1987, the inspector observed that the licensee had issued a new TI, No. RPTI-87-0023, Response to PCM Alarm, removed the TI with RCP D-600 attached and TI No. RPTI87-0016 in accordance with NPAP E-4 requirements.

Based on the above observations, the inspector brought to the licensee's attention the appearance of lack of management over-sight and attention to detail in the use of TIs and lack of effective implementation of corrective actions in a timely manner for deficiencies identified in the QC surveillance. These matters were discussed at the exit interview on July 31, 1987, and was identified as a weakness in C&RP management controls. The C&RP Department's failure to timely implement corrective actions to prevent recurrence of issuing TIs in lieu of an approved procedure and failure to destroy or identify a

TI that was obsolete was identified as an apparent violation of TS 6.8.1 (50-275/87-30-01 and 50-323/87-30-01).

(2) QC Surveillance Report No. 86-0837 was also reviewed. The surveillance was conducted January 12-15, 1987, to review Radiological Occurrence Reports (RORs) generated by the C&RP Department in 1986, to verify compliance with the requirements of procedures RCP D-250, Reporting of Radiological Occurrences, and NPAP C-12, Identification and Resolution of Problems and Nonconformances. The report indicated that RORs reviewed were found to be in compliance with the requirements of RCP D-250 and NPAC C-12. However, the report also noted that significant discrepancies were identified involving the initiation of ARs for the RORs that identified violations of Radiation Work Permit conditions or poor work practices as required in RCP D-250, Section 2.b.1. QC issued AR No. A0059339 regarding these findings. The report also noted that other discrepancies involving the failure to classify a TS violation as a nonconformance and the failure to generate an AR to identify a deviation from a procedure defined as important to safety, respectively, AR Nos. A0060074 and A0059520 were issued to the C&RP Department.

On July 17, 1987, the QC Manager issued a letter to the C&RP Manager that stated, in part, "Our concern expressed in QC Surveillance Report 86-0837 has not been adequately addressed." The letter further stated, in part, "Recent flagrant violations indicate that corrective actions have not been effective. In one case (ROR 8-4753), an individual worked for twenty minutes on a spent fuel pool filter which his dosimetry remained in his shirt thirty feet away. No AR was written. IN another case (ROR 87-4259), an individual was released from the RCA and went to lunch with a contaminated thumb after two PCM-1B alarms. Again, No AR was written. In a third case, an individual was contaminated on June 22, 1987, and again on June 23, 1987. A WBC count on June 23 indicated the presence of Co-60, Co-58 and Mn-54 in his GI tract. Again, no AR was written." The letter also requested a Technical Review Group (TRG) meeting be scheduled to discuss the C&RP Departments failure to write ARs since the problem had reoccurred and action to prevent recurrence had been ineffective.

In discussion with the RP Supervisor, the inspector was informed that the QC Department and C&RP Department had differences in opinion on the definition of a significant event that would result in ARs to be written. The inspector will examine the licensee's resolution of this matter in a subsequent inspection (50-275/87-30-02 and 50-323/87-30-02, Open).

In respect to the individual who had the Co-60, CO-58 and Mn-54 in his GI tract referenced in the above QC letter, the inspector examined the licensee's calculation of dose commitment to this individual. The licensee conservatively

calculated a dose commitment of 34.3 mrem and a total of 4.69 MPC-hr. The inspector did not identify any problems associated with the licensee's method or calculations used to determine the individual's dose.

In further review of C&RP's control and use of procedures, on July 29, 1987, the inspector examined the RP Department's, Required Reading Book. This book along with a file of monthly updated procedures for field use were maintained at the RP's Access Senior's desk area. The Required Reading Book maintained log sheets for about 100 named members of the RP Department, including the engineering staff for signature and date to acknowledge their reading of specific administrative and RP procedures. The log sheets indicated that only a small percentage of the RP staff listed had acknowledged reading the procedures as follows:

Procedure

- RCS-2, Internal Dose Control, Revision 9, dated April 25, 1986, about 43% acknowledgements.
- RCP G-100, Radiation Work Permits, Revision 10, dated August 7, 1986, about 36% acknowledgements.
- RCP G-110, Personnel External Exposure Dosimetry and Control, Revision 8, dated March 6, 1987, about 12% acknowledgements.
- RCP D-200, Writing Radiation Work Permits, Revision 1, dated August 25, 1986, about 42% acknowledgements.
- RCP D-220, Entry Into Plant Areas Which Have a High Potential for Radiation Overexposure, Revision 2, dated March 27, 1987, about 16% acknowledgements.
- RCP D-230, Containment Entry, Revision 4, dated June 19, 1987, about 10% acknowledgements.
- RCP D-420, Sampling and Measurement of Airborne Radioactivity, Revision 7, dated May 4, 1987, about 12% acknowledgements.
- RCP D-710, Use of Constant Flow Air Line Respirators at Diablo Canyon Power Plant, Revision 2, dated June 27, 1986, about 45% acknowledgements.
- RCP D-760, Instructions for Use of In-line Breathing Air Panels, Revision 1, dated May 14, 1987, about 9% acknowledgements.

The above procedures were selected due to their importance related to DCPP's recent refueling outage. Since procedure RCP D-230 was a recent revision, the inspector would not expect a

high percentage of acknowledgements; however, none of the RP Foremen nor the General Foreman had signed their names to acknowledge that they had read the procedure, with containment entries made during power operations almost on a daily basis by technicians under their supervision.

For all of the examples (procedures) listed above and several others not listed, the RP General Foreman had not signed his acknowledgement of having read the procedures and, in general, the RP Line Foremen indicated less than 50% acknowledgement. The inspector noted that all of the names listed may not be directly involved with the day-to-day RP activities in respect to each procedure listed. Also, the inspector observed that many of the procedures listed in the reading book had been covered in C&RP training classes. During interviews with RP Foreman and RP Technicians who had not signed their acknowledgements, the inspector was informed that they had read the procedures, but failed to sign the log sheets. On July 31, 1987, the inspector noted similar performance in the Chemistry's Department Reading Book. This matter was also discussed at the exit interview on July 31, 1987, and the licensee acknowledged the inspector's concern.

Based on observations during several facility tours and discussions with the RP Technician and Foremen, the inspector did not observe any indication that personnel were not cognizant of procedural contents.

Based on the weaknesses identified by the inspector and those identified by PG&E's QC Department, it appears that it would be warranted for C&RP upper management to focus more attention to improve C&RP Department's control and use of licensee procedures. The licensee's actions to improve the use and control of procedures will be reviewed in a subsequent inspection (50-275/87-30-03 and 50-323/87-30-03, Open).

One apparent violation was identified in this area.

4. C&RP and GET; Training and Qualifications

The inspector reviewed the licensee's training programs, selected procedures, and qualification records. In addition, the inspector attended selected portions of GET classes, held discussions with licensee training personnel, observed workers in the RCAS, to determine the licensee's compliance with 10 CFR Part 19, TS, licensee procedures and recommendations outlined in various industry standards. The inspector also reviewed the circumstances surrounding a recent licensee event to determine if the cause was due to any deficiencies in training.

A. Changes

Administrative Procedure, AP B-52, Site Training Organization, outlines the DCPP site training groups and describes the positions and responsibilities of the Training Department. As of February 15,

1987, the GET training was separated from the Training Department and became part of the Access Clearance Control and Screening System. The separation was done to expedite site access capabilities. The individual who was the Senior GET Instructor is now titled Access Supervisor and reports directly to the Assistant Plant Manager, Support Services. The C&RP training among other departmental training is under the control of the Training Department Manager who also reports to the Assistant Plant Manager, Support Services. Technical assistance is provided to the GET training group through the Training Department.

No violations or deviations were identified.

B. Audits

QA Audit Report No. 86166T was reviewed. The audit was conducted August 13-20, 1986, to verify that DCPP had adequately established and implemented departmental procedures applicable to the requirements of the Code of Federal Regulations, DCPP TS, and FSAR for the organization and administration; ALARA; and personnel training, qualifications, and performance aspects of the radiation protection program.

The audit, among other items, included: interviews with members of the C&RP Training and C&RP Department staffs; and reviews of Plant Staff Joint ALARA minutes, ALARA review and job planning, clearance requests and job assignments, C&RP Technician ANSI qualification worksheets, initial plant qualifications, biannual retraining, technician skills checklists, contractor qualifications, and examinations.

The audit identified one discrepancy involving the Plant Staff ALARA Committee having not documented the 1985 annual review of routine job activities or plant radiation and contamination levels to recommend future exposure reductions. This matter was resolved during the audit. No NCRs were issued to DCPP. With the exception of the one discrepancy identified the audit concluded that DCPP had effectively implemented the organization and administration; ALARA; training and personnel qualifications, and performance aspects of the radiation protection program.

No violations or deviations were identified.

C. C&RP Department Training and Qualifications

Inspection Report Nos. 50-275/87-03, 50-323/87-03, 50-275/87-21 and 50-323/87-21 documents previous inspection efforts in this area.

Technical Specification, Section 6.3, Facility Staff Qualifications, requires that each member of the facility staff meet or exceed the minimum qualifications of ANSI N18.1-1971, Selection and Training of Personnel for Nuclear Power Plants. Licensee Procedure NPAP B-1, Qualifications of Personnel on the Plant Staff, Section II, states, in part, that PG&E at the DCPP is committed to meeting the more

stringent requirements of the 1978 revision of ANSI N18.1-1971 (ANSI 3.1-1978) within three years after commercial operations. Procedure AP B-250, Chemical and Radiation Protection Technician Training, outlines the licensee's training program to ensure that C&RP Technicians are trained and qualified to meet the ANSI 3.1-1978 standards within three years after commercial operations.

Training of C&RP Technicians is conducted at the senior level only. The licensee is developing a program for technicians at the apprentice level. C&RP Technician qualification system consists of classroom instructions and demonstration of practical abilities. Demonstration of practical ability is by actual task performance or by simulation in the event actual performance is not practical. The inspector selectively examined records of tasks performed by twelve C&RP technicians during the last month. These tasks were cross-checked against their job skills checkoff list to determine if the licensee was in compliance with their qualification program requirements. These records showed that the technicians selected were qualified for the tasks performed.

A C&RP Technician who has completed plant qualification is required to attend continuing (retraining) training on a quarterly basis and be available for unqualified technicians. In addition to reviews of technical subject matters, the inspector noted that this training included identified problems at DCPP, applicable problems at other power plants, new and revised C&RP procedures, deficiencies identified in QC surveillance reports, and applicable IE Information Notices.

During a discussion with the Senior C&RP Instructor, the inspector was informed that contract RP Technicians were not included in the continuing training program; however, all of the contract Senior RP Technicians had received training regarding hot particles. The inspector was also informed that DCPP does not plan on maintaining contract Senior RP Technicians to fill staff vacancies beyond the end of 1987. The inspector, being aware of at least four contract Senior RP Technicians had been at DCVPP in excess of two years, noted that these individuals were performing the same tasks as PG&E Senior RP Technicians and have not been included in the continuing retraining program. This matter was also discussed at the exit interview on July 31, 1987, and the inspector's observations were acknowledged.

In regard to C&RP technical staff continuing training, the inspector noted that a four day secondary chemistry training seminar was provided to the chemical engineers and foremen in December 1986 by an outside contract firm. The RP Engineers and Foremen were provided four days of technical training on internal radiation dosimetry by a well-known industry expert.

The licensee will be visited by the Institute of Nuclear Power Operations (INPO) starting the week of August 10, 1987, to evaluate DCPP's training programs. The licensee expects to gain INPO accreditation of their training programs.

No violations or deviations were identified.

D. Training and Qualification Related to Licensee Events

The inspector reviewed the licensee's evaluation and held discussions with cognizant plant staff in regard to a recent licensee Notification of Unusual Event (NUE) to determine if the contributing cause was due to deficiencies in training and/or qualifications of personnel.

Based on the review and discussions with licensee representatives, the following observations were made:

- On July 23, 1987, at 2:47 p.m., subsequent to a spent resin transfer, while initiating a liquid radwaste discharge from Chemical Drain Tank (CDT)-01, the alarm setpoint (1.4E5 cpm) of the liquid radwaste discharge monitor (RE-18) was exceeded which automatically stopped the discharge, and diverted the flow to an Equipment Drain Receiver Tank (EDR). At approximately 3:13 p.m., PDT, the licensee called the NRC Operations Center and made notification of an NUE in accordance with their Emergency Procedure, E.P. G-1, Accident Classification and Emergency Classification. The NUE was also terminated at the same time since the discharge had been diverted to an EDR as per system design to prevent any release of radioactivity. RE-18 is common to both Units (1 and 2) and operated from the Unit 1 side.

- Prior to the event, on July 23, 1987, at about 11:00 a.m., the licensee had initiated a spent resin transfer in accordance with Procedure OP G-5:VI, Spent Resin Transfer System Transfer of Resin from SRST 0-1(0-2) to Disposable Containers. After the resin transfer, a system flush was initiated. During the flushing operations, the waste contract vendor experienced problems with the video camera in the waste liner and halted the flushing operations that was nearly completed.

- Prior to the resin transfer operations had recirculated and chemistry had sampled CDT-01 in preparation for a waste discharge. However, CDT-01 was not discharged due to the planned resin transfer. Due to delays in starting the resin transfer (about two hours), CDT-02 had filled and subsequently started to overflow into the auxiliary building sump during the post resin transfer and flushing break to fix the video camera.

- The main flushing operations had been essentially completed, except for a commonly performed tertiary flush of the dead legs in the system. The resin transfer system and spent resin transfer system also share some common lines. Resin transfer flushing water is routed to the EDR tanks via liquid radwaste filters 01 and 02. The CDTs are also routed through the same filters when discharged.

Due to the need to discharge CDT-01 and CDT-02 overflowing, an agreement was made to allow CDT-01 to be discharged. As noted above, when the discharge commenced RE-18 alarmed and the discharge was diverted to an EDR.

The RP Department performed radiation surveys of the lines downstream of RE-18 and noted no readings to indicate a release had occurred. The inspector reviewed the survey data and also concluded that it was unlikely that any significant amount of radiative liquid could have been discharged.

- Shortly thereafter, the video camera was fixed and the flushing process completed in about five minutes. The radwaste filters (01 and 02) were changed out and flushed and CDT-01, after resampling, was discharged without further incident. Procedure OPG G-5:VI does not require the changing of the 01 and 02 filters; however, this has been done in the past post resin transfers. The procedure also does not call for flushing of dead legs. It should be noted that, on several occasions the licensee has experienced similar problems with RE-18 during discharges due to the shared lines. However, in those cases, the licensee had not declared a NUE.

- The Shift Foreman's report, on the reason for the NUE stated, in part, "On July 17, 1987, during a training scenario on the simulator, the same paragraph of EPG-1 was used to classify the incident. This was...the rad monitor was not the same one but the situation was similar, in that after declaring the NUE, the simulator sample results were below MPC levels. The training department had no problem with my response then."

EPG-1, Table I, Emergency Action Levels and Notification of Unusual Event, Item 2.a. under Indicated Conditions, requires the reporting of NUEs for listed process monitors that alarm with valid readings in excess of TS alarm setpoint. RE-18 is one of the monitors listed. Item a. states, "Unplanned or uncontrolled release exceeding alarm set point."

10 CFR 50.72(b)(2)(iii)(C) and (IV)(B) require, in part, that each licensee shall notify the NRC as soon as practical and, in all cases, within four hours of an event or condition that alone could have prevented the fulfillment of the safety function of structures or system that are needed to control the release of radioactive material, and any liquid effluent released that exceeded two times the limiting combined MPC of 10 CFR 20, Appendix B, Table II, Column 2.

TS 3.11.1.1 requires, in part, that the concentration of radioactive material in liquid effluents shall be limited to the concentrations specified in 10 CFR Part 20, Appendix B, Table II, Column 2.

The licensee's liquid radwaste system has a shut-off valve downstream of RE-18, which automatically closes when RE-18

alarms. The liquid being discharged is automatically diverted via other automatic operated valves to an EDR. This has also been verified by the inspector during previous inspections and during this inspection by a system walkdowns and observations during tests of RE-18.

The alarm point for RE-18 is normally set at a nominal value less than the TS and 10 CFR Part 20 limits as it was in this case. Based on the isotopic mix of the spent resin, CDT-01 discharge flowrate, time delay between the RE-18 alarm and automatic closure of the discharge valve, the licensee conservatively calculated that if any liquid was discharged, it could have been no more than 18.5% of the TS limits. The inspector also reviewed these calculations and no problems were identified.

Since the system operated as designed and no potential off-site release in excess of the regulatory limits occurred, a report of NUE in accordance with the requirements of 10 CFR 50.72 appeared not to be necessary in this case. However, Procedure EPG-1 eluded to the classification of NUE when the RE-18 alarm setpoint is exceeded.

Based on the above observations and discussions with licensee representatives, the following further observations were made:

- The cause for the RE-18 alarm was apparently due to highly radioactive resin fines and/or crud that was trapped in the filters (01 and 02) or other parts of the shared system that washed out when initiating the CDT-01 discharge, The licensee was making procedural changes to reduce recurrences. The inspector will examine these changes in a subsequent inspection (50-275/87-30-04, Open). The licensee was also considering modifications to separate the systems.

- In respect to reporting requirements, the licensee was making changes to Procedures EPG-1 to clarify classification of NUEs based on process monitor's alarm setpoints. These changes will also be examined during a subsequent inspection (50-275/87-30-05, Open).

- The inspector did not identify any deficiencies in training or qualifications that resulted in the RE-18 alarm.

No violations or deviations were identified.

E. GET

Based on an INPO evaluation in 1985, the licensee received acknowledgement, letter dated June 12, 1985, that DCPP's GET training program met the standards of INPO Guide 82-004, INPO Guideline for General Employee Training. Based on an INPO visit in

June 1986, the licensee received a Good Practice on their practical factors for contamination control portion of the GET. The inspector held discussions with the Access Supervisor and GET Instructors, observed GET classroom instructions on several occasions, reviewed licensee procedures and instructor outlines and student handouts. In addition, the inspector queried an individual who had completed GET classroom instruction to test the effectiveness of the training provided, and observed worker in the RCAs. The inspector did not observe any instances that would indicate poor performance related to GET. Administrative Procedure, AP B-252, General Employee Training, provides the catalog for the GET courses.

Based on the observations in this area, the inspector determined that the licensee's GET program met the requirements of 10 CFR 19.12 and the guidelines recommended in Regulatory Guides 8.27 and 8.29.

No violations or deviations were identified.

5. Licensee Events and Identified Problems

The following events and problems were reviewed:

- Paragraph 4.D. above describes the inspector's review, in respect to training and qualifications, of a NUE, No. 09400, on July 23, 1987, involving a high level radioactivity alarm on RE-18. Based on the above review, the inspector determined that the licensee took appropriate corrective actions in identifying the cause, evaluate any potential effluent release, and to prevent recurrence. In respect to recurrence, the potential will remain due to shared portions of the liquid radwaste discharge and spent resin transfer lines.

- Prior to the Unit 2 refueling outage, the licensee had estimated that they had a primary to secondary leak rate through the steam generators (PSLR-S/Gs) of 0.3 gallons per day (gpd), total. Subsequent to the refueling outage and restart of power operations, the licensee has observed a PSLR-SGs of about 6 gpd, total, with an estimation of about 2 gpd each for S/Gs 2, 3, and 4. The licensee has not been able to determine the cause of the detected increase. The Unit 2 reactor coolant activity dose equivalent iodine has been about 9.44 E-3 μCi/cc and has shown a downward trend, along with I-131, with reactor power level increase. The gross activity level was noted to be about 6.00E-1 μCi/cc. The licensee expects good fuel performance as was observed in the Unit 2's first year of power operations. The inspector had no further questions regarding the Unit 2 PSLR-S/Gs.

No violations or deviations were identified.

6. Followup on IE Information Notices

The inspector verified that the licensee had received, reviewed and was taking or had taken action on IE Information Notices Nos. 86-103, 86-107, 86-86, 86-90, 87-03, 87-07, 87-31, and 87-32.

7. Facility Tours

The inspector toured various areas of the auxiliary and fuel handling building of Units 1 and 2 on several occasions. The inspector made independent radiation measurements using an NRC RO-2 portable ion chamber, S/N 2691, due for calibration October 21, 1987.

During the tours, the inspector observed that all radiation areas and high radiation areas were posted as required by 10 CFR Part 20. Licensee access and posting controls for high radiation areas were observed to be consistent with TS, Section 6.12, and licensee's procedures.

No violations or deviations were identified.

8. Exit Interview

The inspector met with the licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on July 31, 1987. The scope and findings of the inspection were summarized.

The inspector emphasized the observations regarding timely resolution of Quality Hotline Investigation No. QCSR-87-005 and corrective actions to improve compliance with their administrative procedures controlling temporary instructions. The inspector's concerns discussed in this report were acknowledged by the licensee.