UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

February 3, 2005

Gregory M. Rueger, Senior Vice
President, Generation and Chief Nuclear Officer
Pacific Gas and Electric Company
Diablo Canyon Power Plant
P.O. Box 3
Avila Beach, California 93424

SUBJECT: DIABLO CANYON - NRC RADIATION SAFETY TEAM INSPECTION REPORT 05000275/2004009 AND 05000323/2004009

Dear Mr. Rueger:

On December 17, 2004, the NRC completed the Radiation Safety Team inspection at your Diablo Canyon Nuclear Power Plant, Units 1 and 2, facility. The enclosed report documents the inspection findings that were discussed with Mr. P. Roller, Operations Services Director and other members of your staff. On January 14, 2005, a telephonic exit was conducted with Mr. R. Hite, Radiation Protection Manager concerning additional radioactive material control findings.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your operating license. The team reviewed selected procedures and records, observed activities, and interviewed personnel. Specifically, the team evaluated the inspectable areas within the Radiation Protection Strategic Performance Area that are scheduled for review every two years. These areas are:

- Radiation Monitoring Instrumentation
- Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems
- Radioactive Material Processing and Transportation
- Radiological Environmental Monitoring Program and Radioactive Material Control Program

This inspection report documents one NRC-identified violation and one self-revealing violation. Both findings are non-cited violations that have been determined to be of very low safety significance (Green). Additionally, two licensee-identified violations, which were determined to be of very low safety significance, are listed in Section 4OA7 of this report. If you contest these non-cited violations or their significance, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission Region IV, 611 Ryan Plaza Drive,

Suite 400, Arlington, Texas 76011-4005; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington DC 20555-001; and the NRC Resident Inspector at the Diablo Canyon, Units 1 and 2, facility.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

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

Sincerely,

//RA//

Michael P. Shannon, Chief
Plant Support Branch
Division of Reactor Safety

Dockets: 50-275
50-323
Licenses: DPR-80
DPR-82

Enclosure:
NRC Inspection Report
05000275/2004009; 05000323/2004009
cc:
cc w/enclosure:
David H. Oatley, Vice President
and General Manager
Diablo Canyon Power Plant
P.O. Box 56
Avila Beach, California 93424

Lawrence F. Womack, Vice President
Nuclear Services
Diablo Canyon Power Plant
P.O. Box 56
Avila Beach, California 93424

James R. Becker, Vice President
Diablo Canyon Operations and
Station Director, Pacific Gas and
Electric Company
Diablo Canyon Power Plant
P.O. Box 3
Avila Beach, California 93424

Sierra Club
ATTN: Andrew Christie
P.O. Box 15755
San Luis Obispo, CA 93406

Nancy Culver
San Luis Obispo Mothers for Peace
P.O. Box 164
Pismo Beach, California 93448

Chairman
San Luis Obispo County Board of
Supervisors
Room 370
County Government Center
San Luis Obispo, California 93408

Truman Burns\Mr. Robert Kinosian
California Public Utilities Commission
505 Van Ness, Rm. 4102
San Francisco, California 94102-3298

Diablo Canyon Independent Safety Committee
Robert R. Wellington, Esq.
Legal Counsel
857 Cass Street, Suite D
Monterey, California 93940

Ed Bailey, Radiation Control Program Director
Radiologic Health Branch
State Department of Health Services
P.O. Box 942732 (MS 178)
Sacramento, California 94234-7320

Richard F. Locke, Esq.
Pacific Gas and Electric Company
P.O. Box 7442
San Francisco, California 94120

City Editor
The Tribune
3825 South Higuera Street
P.O. Box 112
San Luis Obispo, California 93406-0112

James D. Boyd, Commissioner
California Energy Commission
1516 Ninth Street (MS 34)
Sacramento, California 95814

Electronic distribution by RIV:
Regional Administrator **(BSM1)**
DRP Director **(ATH)**
DRS Director **(DDC)**
Senior Resident Inspector **(DLP)**
Branch Chief, DRP/E **(WBJ)**
Staff Chief, DRP/TSS **(RLN)**
RITS Coordinator **(KEG)**
Mel Fields **(MBF1)**
DRS STA **(DAP)**
Jennifer Dixon-Herrity, OEDO RIV Coordinator (**JLD)**
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SISP Review Completed: LC2 ADAMS: ■ Yes ☐ No Initials: _LC2_ __
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DOCUMENT NAME: R:_DC\2004\DC2004-09RP-TEAM-LC2.wpd

RIV:DRS/PSB	PSB	PSB	PSB	C:PSB
LCCarsonII	BKTharakan	DRCarter	GLGuerra	MPShannon
/RA/	/RA/	NA	via E	/RA/
01/20/05	01/24 /05	01/ /05	01/24 /05	02/2/05

C:DRP/Branch E	C:PEB			
WBJones	MPShannon			
/RA/	/RA/			
02/3/05	2/3/05			

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ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket:	50-275 50-323
License:	DPR-80 DPR-82
Report No.:	05000275/2004009 05000323/2004009
Licensee:	Pacific Gas and Electric Company
Facility:	Diablo Canyon Nuclear Power Plant, Unit 1 and 2
Location:	7 ½ miles NW of Avila Beach Avila Beach, California
Date:	December 13, 2004, through January 14, 2005
Inspectors:	Louis C. Carson II, Senior Health Physicist-Team Leader Daniel R. Carter, Health Physicist Gilbert L. Guerra, Resident Inspector, South Texas Project Binesh K. Tharakan, Health Physicist
Accompanied By:	Larry T. Ricketson, Senior Health Physicist
Approved By:	Michael P. Shannon, Chief, Plant Support Branch Division of Reactor Safety
ATTACHMENT:	Supplemental Information

SUMMARY OF FINDINGS

Diablo Canyon, Units 1 and 2
NRC Inspection Report 05000275/2004009; 05000323/2004009

IR 05000-275-04-09, IR 05000-323-04-09;12/13/2004 - 01/14/2005; Pacific Gas and Electric. Co.; Diablo Canyon Nuclear Power Plant Units 1 and 2; Radiation Monitoring Instrumentation and Protective Equipment; and Radiological Environmental Monitoring Program and Radioactive Material Control Program

The report covered a one week period of inspection on site by a team of three region-based health physics inspectors and a resident inspector. Based on the results of the inspection, the team identified two findings of very low safety significance (Green). The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609, "Significance Determination Process," (SDP). Findings for which the SDP does not apply may be "Green" or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. NRC-Identified and Self-Revealing Findings

Cornerstone: Occupational Radiation Safety

- Green: A self-revealing non-cited violation of 10 CFR 20.1501(a) was identified when the licensee failed to perform an adequate survey to evaluate the radiological hazards associated with venting the steam generator exhaust into containment during the Unit 2 refueling outage. On February 7, 2003, the licensee failed to take air samples to account for the decay of tellurium-132 into iodine-132 in the steam generator exhaust prior to venting into the containment building. Consequently, fifty-two workers in containment received unplanned and unintended low-level intakes (less than 10 millirem) of iodine-132. This issue has been entered into the licensee's corrective action program as Action Request No. A0628334.

  The failure to perform a survey to evaluate radiological hazards is a performance deficiency. The finding is more than minor because it affected the Occupational Radiation Safety cornerstone objective to protect worker health and safety from radiation and radioactive materials. This finding was associated with the cornerstone attribute of Exposure Control and involved unplanned and unintended dose to workers that resulted from actions contrary to NRC requirements. Therefore the Occupational Radiation Safety Significance Determination Process was used to analyze the significance of the finding which was determined to be of very low safety significance because it did not involve: (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose (Section-2OS3).

Cornerstone: Public Radiation Safety

- Green: The team identified a non-cited violation of 10 CFR 31.5(c) because the licensee failed to maintain a program for generally-licensed radioactive devices used for reactor operations in accordance with the regulatory requirements. The licensee failed to implement a program for the use of generally-licensed devices used for monitoring personnel, and consequently failed to maintain and test 14 radioactive sources housed within the generally-licensed devices. Specifically, the licensee had not (1) conducted contamination leak tests on the device and the 10-millicurie Nickel-63 source housed in each device at the required frequency and (2) assigned an individual with the regulatory knowledge or authority to ensure compliance with 10 CFR 31.5. This issue has been entered into the licensee's corrective action program as Action Request A0628345.

  The licensee's failure to control generally-licensed devices containing radioactive material in accordance with 10 CFR 31.5 was a performance deficiency. The finding was more than minor because it affected the Public Radiation Safety cornerstone attribute and affected the associated cornerstone objective. In order to ensure adequate protection of the public health and safety from exposure to radioactive materials released into the public domain, the licensee is required to leak test each generally-licensed device. Using the Public Radiation Safety Significance Determination Process, the finding had very low safety significance (Green) because: (1) it was not a transportation issue, (2) public exposure was not more than 5 millirem, and (3) there were not more than five occurrences. This finding also had crosscutting aspects associated with the effectiveness of problem identification and resolution (Section 2PS3).

Licensee Identified Violations

Two violations of very low safety significance, which were identified by the licensee, have been reviewed by the team. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and corrective actions are listed in Section 4OA7 of this report.

Report Details

2. RADIATION SAFETY
Cornerstone: Occupational Radiation Safety [OS]

2OS3 Radiation Monitoring Instrumentation and Protective Equipment (71121.03)

a. Inspection Scope

This area was inspected to determine the accuracy and operability of radiation monitoring instruments that are used for the protection of occupational workers and the adequacy of the program to provide self-contained breathing apparatus (SCBA) to workers. The team used the requirements in 10 CFR Part 20 and the licensee's procedures required by technical specifications as criteria for determining compliance. The team interviewed licensee personnel and reviewed:

- Calibration of area radiation monitors associated with transient high and very high radiation areas and post-accident monitors used for remote emergency assessment
- Calibration of portable radiation detection instrumentation, electronic alarming dosimetry, and continuous air monitors used for job coverage
- Calibration of whole body counting equipment and radiation detection instruments utilized for personnel and material release from the radiologically controlled area
- Self-assessments, audits, and Licensee Event Reports
- Corrective action program reports since the last inspection
- Licensee action in cases of repetitive deficiencies or significant individual deficiencies
- Calibration expiration and source response check currency on radiation detection instruments staged for use
- The licensee's capability for refilling and transporting SCBA air bottles to and from the control room and operations support center during emergency conditions, status of SCBA staged and ready for use in the plant and associated surveillance records, and personnel qualification and training
- Qualification documentation for onsite personnel designated to perform maintenance on the vendor-designated vital components, and the vital component maintenance records for SCBA units

Either because the conditions did not exist or an event had not occurred, no opportunities were available to review the following item:

- Licensee Event Reports.

The team completed 9 of the required 9 samples.

b. Findings

Introduction. A Green self-revealing non-cited violation of 10 CFR 20.1501(a) was identified for failure to perform an adequate survey to evaluate the radiological hazards associated with releasing (venting) material from the steam generators to the Unit 2 containment building atmosphere prior to commencing work.

Description. On February 7, 2003, two workers became contaminated while working on the steam generators during Unit-2 Refueling Outage 11. Two workers received personal contamination monitor alarms when they tried to exit the radiologically controlled area. The two workers were directed to report to the dosimetry department for whole body scans and further analyses. After comprehensive whole body scans using sodium iodide and high-purity germanium detectors, the analyses showed that the workers had intakes of iodine-132. The licensee stopped work in containment and performed an investigation to determine the cause of the intakes.

The licensee determined that the steam generator ventilation line-up was changed which vented the steam generator's exhaust directly into the containment building and caused the intakes. Earlier in the outage the licensee had successfully vented the steam generator bowls to the atmosphere through the plant vent via the containment ventilation exhaust system to eliminate the initial spike of noble gases and iodine. Later, the licensee decided to change the ventilation line-up to allow steam generator bowls to vent inside the containment building through a particulate filter. However, the licensee failed to evaluate the radiological hazards associated with this action prior to venting the steam generator bowls directly into containment. Primarily, the licensee failed to take an air sample to determine the extent of radiological hazards present and to account for the decay of tellurium-132 into iodine-132 in the steam generator exhaust. This decision resulted in a total of 52 workers receiving intakes (less than 10 millirem) of iodine. The licensee's immediate corrective action was to stop work on the steam generator bowls and resume the previous ventilation line-up. In addition, after determining the extent of the iodine radioactivity in the steam generator exhaust, iodine filters were installed in the steam generator bowl exhaust trunks.

Analysis. The failure to perform an adequate survey to evaluate radiological hazards is a performance deficiency. The finding is more than minor because it affected the Occupational Radiation Safety cornerstone objective to protect worker health and safety from radiation and radioactive materials. This finding was associated with the cornerstone attribute of Exposure Control and involved unplanned and unintended dose to workers that resulted from actions contrary to NRC requirements. The team used the Occupational Radiation Safety Significance Determination Process to analyze the significance of the finding. The team determined that the finding was of very low safety significance because it did not involve: (1) ALARA planning and controls, (2) an overexposure, (3) a substantial potential for overexposure, or (4) an impaired ability to assess dose.

Enforcement. 10 CFR 20.1501(a), states, in part, that each licensee shall make surveys or cause to be made surveys that may be necessary to comply with the regulations in Part 20 and that are reasonable under the circumstances to evaluate the magnitude and extent of radiation levels, concentrations or quantities of radioactive material, and the potential radiological hazards.

Pursuant to 10 CFR 20.1003, a survey means an evaluation of the radiological conditions and potential hazards incident to the production, use, transfer, release, disposal, or presence of radioactive material or other sources of radiation.

Contrary to this requirement, on February 7, 2003, the licensee failed to evaluate the radiological hazards associated with releasing (venting) material from the steam generators to the containment atmosphere to assure compliance with 10 CFR 20.1201(a)(1)(ii), which limits the sum of the deep-dose equivalent and the committed dose equivalent to any individual organ or tissue annually. Because the failure to perform an adequate survey was determined to be of very low safety significance and has been entered into the licensee's corrective action program as Action Request A0628334 and Non-Conformance Report N0002158, this violation is being treated as a non-cited violation (NCV), consistent with Section VI.A.1 of the NRC Enforcement Policy: NCV 05000323/2004009-01, Failure to perform an adequate survey to evaluate radiological hazards.

Cornerstone: Public Radiation Safety [PS]

2PS1 Radioactive Gaseous And Liquid Effluent Treatment And Monitoring Systems (71122.01)

a. Inspection Scope

This area was inspected to ensure that the gaseous and liquid effluent processing systems are maintained so that radiological releases are properly mitigated, monitored, and evaluated with respect to public exposure. The team used the requirements in 10 CFR Part 20, 10 CFR Part 50 Appendices A and I, the Offsite Dose Calculation Manual, and the licensee's procedures required by technical specifications as criteria for determining compliance. The team interviewed licensee personnel and reviewed:

- The most current radiological effluent release reports, changes to radiation monitor setpoint calculation methodology, anomalous sampling results, effluent radiological occurrence performance indicator incidents, self-assessments, audits, and licensee event reports

- Gaseous and liquid release system component configurations

- Routine processing, sample collection, sample analysis, and release of radioactive liquid and gaseous effluent; including effluent release permit generation and dose projections to members of the public

- Abnormal releases

- Changes made by the licensee to the ODCM, the liquid or gaseous radioactive waste system design, procedures, or operation since the last inspection

- Monthly, quarterly, and annual dose calculations

- Surveillance test results involving air cleaning systems and stack or vent flow rates

- Instrument calibrations of discharge effluent radiation monitors and flow measurement devices, effluent monitoring system modifications, effluent radiation monitor alarm setpoint values, and counting room instrumentation calibration and quality control

- Measurement Assurance Program (Interlaboratory comparison) results

- Audits, self-assessments and corrective action reports performed since the last inspection.

Either because the conditions did not exist or an event had not occurred, no opportunities were available to review the following items:

- Abnormal releases, Licensee Event Reports or special reports.

The team completed 10 of the required 10 samples.

b. Findings

No findings of significance were identified.

2PS2 Radioactive Material Processing and Transportation (71122.02)

a. Inspection Scope

This area was inspected to verify that the licensee's radioactive material processing and transportation program complies with the requirements of 10 CFR Parts 20, 61, and 71 and Department of Transportation regulations contained in 49 CFR Parts 171-180. The Team interviewed licensee personnel and reviewed:

- The radioactive waste system description, recent radiological effluent release reports, and the scope of the licensee's audit program

- Liquid and solid radioactive waste processing systems configurations, the status and control of any radioactive waste process equipment that is not operational or is abandoned in place, changes made to the radioactive waste processing systems since the last inspection, and current processes for transferring radioactive waste resin and sludge discharges

- Radio-chemical sample analysis results for radioactive waste streams and use of scaling factors and calculations to account for difficult-to-measure radionuclides

- Shipment packaging, surveying, labeling, marking, placarding, vehicle checking, driver instructing, and disposal manifesting for Shipment RMS-04-061

- Shipping records for five non-excepted package shipments

- Licensee event reports, special reports, audits, state agency reports, self-assessments and corrective action reports performed since the last inspection

Either because the conditions did not exist or an event had not occurred, no opportunities were available to review the following items:

- Licensee event reports, special reports, and state agency reports

- Changes made to the radioactive waste processing systems since the last inspection

The team completed 6 of the required 6 samples.

b. Findings

No findings of significance were identified.

2PS3 Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program (71122.03)

a. Inspection Scope

This area was inspected to ensure that the REMP verifies the impact of radioactive effluent releases to the environment and sufficiently validates the integrity of the radioactive gaseous and liquid effluent release program; and that the licensee's surveys and controls are adequate to prevent the inadvertent release of licensed materials into the public domain. The Team used the requirements in 10 CFR Part 20, 10 CFR Part 50, Appendix I, the Offsite Dose Calculation Manual, and the licensee's procedures required by technical specifications as criteria for determining compliance. The Team interviewed licensee personnel and reviewed or observed the following:

- Review radiological environmental monitoring, meteorological, and radioactive material control programs

- 2002 and 2003 annual environmental operating reports and licensee audits

- A sampling of air, water, milk, vegetation, and thermoluminescence dosimeter (TLD) monitoring stations

- Collection and preparation of environmental samples

- Operability, calibration, and maintenance of meteorological instruments
- Each event documented in the 2002 and 2003 Annual Environmental Monitoring Report which involved a missed sample, inoperable sampler, or anomalous measurement
- Significant changes made by the licensee to the ODCM as the result of changes to the land use census or sampler station modifications
- Calibration and maintenance records for air samplers and environmental sample radiation measurement instrumentation, quality control program, and interlaboratory comparison program results
- Radiologically Controlled Area access points and methods used to control, survey, and release materials from radiologically controlled areas
- Types of radiation monitoring instrumentation used to monitor items released from radiologically controlled areas, criteria used to survey potentially contaminated material, radiation detection sensitivities, procedural guidance, and material release records
- Selected corrective action documents involving the radiological environmental monitoring, meteorological monitoring, and radioactive material control programs.

The team completed 10 of the required 10 samples.

b. Findings

Introduction. The team identified a Green, non-cited violation because the licensee failed to maintain a program for generally-licensed radioactive devices used for reactor operations in accordance with the provisions of 10 CFR 31.5(c).

Description. The licensee possessed and used 14 generally-licensed devices which each contained 10-millicurie Nickel-63 sources. Each device was obtained in accordance with a general license granted under the provisions of 10 CFR 31.5. After interviewing cognizant licensee personnel, the team determined that the licensee had no program to ensure that the devices were maintained in accordance with the requirements of 10 CFR 31.5(c) . Subsequently, the team determined that the licensee had not tested the devices for leakage of radioactive material as required by 10 CFR 31.5(c).

Analysis. The licensee's failure to control generally-licensed devices containing radioactive material in accordance with 10 CFR 31.5 was a performance deficiency. The finding was more than minor because it affected the Public Radiation Safety cornerstone attribute and affected the associated cornerstone objective to ensure adequate protection of the public health and safety from exposure to radioactive materials. Using the Public Radiation Safety Significance Determination Process, the

team determined that the finding had very low safety significance (Green) because: (1) it was not a transportation issue, (2) public exposure was not more than 5 millirem, and (3) there were not more than five occurrences. This finding also had crosscutting aspects associated with the effectiveness of problem identification and resolution (Section 2PS3).

Enforcement. 10 CFR 31.5 (a) grants a general license to commercial firms to possess or use byproduct material contained in devices designed for the purpose if the provisions of 10 CFR 31.5(c) are met. 10 CFR 31.5 (c) requires, in part, that the device be tested for leakage of radioactive material; that records of leak test results be maintained; and requires an appointed individual responsible for having the regulatory knowledge to ensure compliance However, the licensee did not have a program to ensure these devices were in compliance with 10 CFR 31.5 (c). This violation is in the licensee's corrective action program as Action Request A0597931. This violation is being treated as a non-cited violation consistent with Section VI.A.1 of the NRC Enforcement Policy: NCV 05000323/2004009-02, Failure to control radioactive material contained in generally-licensed devices in accordance with 10 CFR 31.5.

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution

a. Inspection Scope

The team evaluated the effectiveness of the licensee's problem identification and resolution process with respect to the following inspection areas:

- Radiation Monitoring Instrumentation (Section 2OS3)
- Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems (Section 2PS1)
- Radioactive Material Processing and Transportation (Section 2PS2)
- Radiological Environmental Monitoring Program and Radioactive Material Control Program (Section 2PS3)

b. Findings and Observations

Section 2PS3 discusses an example of the licensee's lack of effectiveness in problem identification and resolution. Specifically, the licensee did not fully evaluate the fully extent of the problem identified in Action Request A0597931 regarding generally-licensed devices acquired. The licensee had determined that procedures requiring notification of the radiation protection manager were not followed. However, the licensee did not inquire into the number of sources that had been acquired and used onsite. Additionally, the licensee did not ascertain that the radiation sources and generally-licensed devices were properly controlled in accordance with NRC regulations and/or vendor instructions. (Section 2PS3)

4OA6 Meetings

Exit Meeting Summary

The team presented the inspection results to Mr. P. Roller, Operations Director and other members of licensee management during an exit meeting conducted on December 17, 2004. The licensee acknowledged the findings presented.

On January 14, 2005, the team conducted an exit interview by telephone, and presented additional radioactive material control findings to Mr. R. Hite, Radiation Protection Manager and Mr. L. Parker, Supervisor, Regulatory Services. The licensee acknowledged the findings presented.

The team asked the licensee whether or not any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

4OA7 Licensee Identified Violations

.1 10 CFR 20.1801 requires that the licensee shall secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas. During the review of corrective action documents the team noted in Action Request A0596423 that two Sr-90 0.5 uCi sources were missing from the licensee's inventory and could not be found. This violation is in the licensee's corrective action program as Action Request A0628379. Using the Public Radiation Safety Significance Determination Process, the team determined that this finding had very low safety significance (Green) because it was not a transportation issue, public exposure was not more than 5 millirem, and there were not more than 5 occurrences.

.2 Technical Specification 5.4.1.a requires written procedures be established, implemented, and maintained covering the activities referenced in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. Appendix A, Section 7 references procedures for control of radioactivity. Procedure RCP D-614, "Release of Solid Materials From Radiologically Controlled Areas," Revision 6A, Section 7.1.1, required, in part, "all material released from the radiologically controlled area shall have no detectable licensed radioactivity." During the review of corrective action documents the team noted 14 examples documented in Action Requests involving the release of radioactive material released outside the radiologically controlled area but within the protected area. Detectable contamination was found on personal articles and equipment during the performance of routine surveys and by the use of protected area radiation detection instrumentation. Using the Public Radiation Safety Significance Determination Process, the team determined that the finding had very low safety significance (Green) because it was not a transportation issue, public exposure was not more than 5 millirem, and there were not more than 5 occurrences. These events were documented in the licensee's corrective action program as Action Requests A0569316 and A0577295.

ATTACHMENT

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

T. Bast, Operational Support and Equipment Team Lead
J. Becker, Station Director
D. Bell, Supervisor, Instrument Calibration
C. Belmont, Director, Nuclear Quality Assurance
K. Buckman, Engineer, Instrument Systems/Components
R. Clark, Team Lead, Radiation Protection
C. Dougherty, Senior Engineer, Regulatory Services
R. Gagney, Foreman, Radiation Protection
J. Harker, Dosimetry and Technical Support Team Lead
R. Hite, Manager, Radiation Protection
L. Hopson, Manager, Chemical & Engineering Operations
R. Jett, Nuclear Quality Analysis and Licensing
S. Ketelsen, Manager, Regulatory Services
J. Knemeyer, Chemical Engineer, Chemical & Engineering Operations
R. Lorenz, Supervisor,Technical & Ecological Services
L. Moretti, Supervisor, Radiation Protection
L. Parker, Supervisor, Regulatory Services
J. Portney, Supervisor, Systems Engineering
R. Prigimore, Supervisor, Quality Verification
P. Roller, Operations Director
L. Sewell, Dosimetry Foreman, Radiation Protection
M. Summerville, Radiation Protection Team Leader

NRC

D. Proulx, Senior Resident Inspector
T. Jackson, Resident Inspector

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None.

Opened and Closed During this Inspection

05000323/200400901	NCV	Failure to perform an adequate survey to evaluate radiological hazards (Section 2OS3)
05000323/200400902	NCV	Failure to control radioactive material contained in certain generally-licensed devices in accordance with 10 CFR 31.5. (Section 2PS3)

Previous Items Closed

None

LIST OF DOCUMENTS REVIEWED

Section 2OS3: Radiation Monitoring Instrumentation and Protective Equipment

Procedures

CY2.ID1	Radioactive Effluent Controls Program, Revision 6A
MP I-RC15	Calibration of Eberline PCM-1B Personnel Contamination Monitor, Revision 6B
MP I-RC24	NE Technology SAM-9 Tool Contamination Monitor Calibration, Revision 1
MP I-RC26	Calibration of Eberline PM7 Portal Radiation Monitor, Revision 1
MP I-RD01	Calibration of Eberline Model RO-2 and RO-2A Ion Chamber Survey Instruments, Revision 4
MP I-RD03	Calibration of Eberline 6112B Teletector G-M Survey Instrument, Revision 8
MP I-RD34	Calibration of MGP AMP-200 Dose Rate Meter, Revision 1
STP I-18P4	Oily Water Separator Effluent Discharge Monitor RM-3: Radiation Source Presentation (Isotopic) Calibration, Revision 2

STP I-39-R14.B	Plant Vent Discharge Noble Gas RM-14 Radiation Monitor Calibration, Revision 7
STP I-39-R24R.B	Plant Vent Discharge Iodine Redundant RM-24 Radiation Monitor Calibration, Revision 8
STP I-39-R30.B	Containment High Range Area Monitor RM-30/RM-31 Calibration, Revision 6
RCP D-340	Calibration of Direct Reading Pocket Dosimeters (PICs), Revision 12
RCP-D-770	Filling of Breathing Air Bottles, Revision 10
RCP-D-771	Operation of the Posedon Model P250 Breathing Air Compressor Revision 5
RCP D-353	Operation of the Canberra Fastscan Whole Body Counters, Revision 8
RCP D-981	Operation and Calibration Verification of the 400 Curie J. L. Shepherd Model 89 Shielded Calibrator, Revision 1

Action Requests

A0573212 A0573986 A0573988 A0574577 A0575557 A0581750 A0581751 A0582114
A0584475 A0587043 A0590347 A0590864 A0590978 A0592745 A0594075 A0598805
A0599041 A0601693 A0603264 A0605508 A0610356 A0611747 A0611992 A0612187
A0613029 A0613683 A0616348 A0617636 A0619092 A0623566

Quality Audit Report

June 11, 2002	Nuclear Procurement Issues Committee Commercial Grade Survey #CGS02-008, Thermo Eberline Instrument Corporation, SQA020046
November 13, 2002	Supplier Requalification Audit 022560062 Thermo Gamma-Metrics
May 8, 2003	Nuclear Procurement Issues Committee Joint Audit Report for Canberra Industries, Meriden, CT

Calibration Packages

Identification Number 05.10.002, Eberline PCM-1B, July 29, 2004
Identification Number 03.25.001, MGP Instruments AMP-200, October 25, 2004
Identification Number 03.07.007, 6112B Teletector, November 30, 2004
Identification Number 06.24.002, SAM-9 Tool Contamination Monitor, October 30, 2004
Identification Number 03.09.008, RO-2 Dose Rate Meter, December 6, 2004

Miscellaneous

Nonconformance Report N0002158

Radiation Monitor High Alarm Set Point and Alternate Alarm Set Point Change Request for Unit 2 RM-44 Containment Purge Exhaust and Ventilation Isolation Monitor

Section 2PS1: Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems

Procedures

CAP A-5	Liquid Radwaste Management, Revision 36
CAP A-6	Gaseous Radwaste Management, Revision 29
CAP A-8	Off-Site Dose Calculations, Revision 28
CAP E-2	Gas Sampling, Revision 19
CAP E-19	Plant Vent Radioactive Effluent Sampling, Revision 12
CY2	Radiological Monitoring and Controls Program, Revision 5
CY2.ID1	Radioactive Effluent Controls Program, Revision 7
CY2DC1	Radiation Monitoring System High Alarm Setpoint, Revision 1A
RCP D-611	Release of Liquids, Sludges, Slurries and Oils from the RCA, Revision 7D

Action Requests

A0584931	A0588221	A0618840	A0618839	A0619139	A0587895	A0611992	A0615476
A0613029	A0581996	A0599719	A0599721	A0593756	A0619014	A0594658	A0594662
A0600782	A0600819	A0600827	A0600828	A0602016	A0607567	A0619600	A0623205
A0609659	A0609659	A0609738	A0589415	A0595146	A0619139	A0618839	A0620586
A0623568	A0606751	A0588154	A0589223	A0590347	A0593613	A0595263	A0596423
A0597931	A0600015	A0601592	A0622441	A0602319	A0605244	A0609151	A0610002
A0622317	A0622442	A0590347	A0611747	A0613805	A0579667	A0622203	

Calibration Packages

Work Order Number R0230253, Calibration of 0RM-3 Oily Water Separator Radiation Monitor
Work Order Number R0240610, Calibration of RM-14 Plant Vent Radiation Monitor
Work Order Number R0240611, Calibration of RM-24 Plant Vent Radiation Monitor

Release Permits

Unit 1 Containment Sampling, Gaseous Radioactive Waste, from December 15, 2004
Unit 1 Liquid Radioactive Waste Batch from December 14, 2004
Unit-2 Plant Vent Stack Gaseous Radioactive Waste from December 14, 2004

Surveillance Packages

STP I-39, Plant Vent Noble Gas RM-14 Radiation Monitor Calibration, Revision 14

STP G-9, General HEPA Filter Bank Penetration Test, Revision 8

STP G-10, General Charcoal Filter Bank Penetration Test, Revision 8

STP G-11, Obtaining Charcoal Filter Media for Laboratory Testing (Methyl Iodine), Revision 16

STP 53, Unit 1 Control Room Ventilation System - DOP and Halide Penetration Tests, Revision 13

STP 53, Unit 2 Control Room Ventilation System - DOP and Halide Penetration Tests, Revision 6

STP M-3A, Unit 1 Auxiliary Building Ventilation System - DOP and Halide Penetration Test, Revision 13

STP M-3A, Unit 2 Auxiliary Building Ventilation System - DOP and Halide Penetration Test, Revision 4

STP 41, Fuel Handling Building Ventilation System - DOP and Halide Penetration Tests, Revision 18

Annual Self-Assessment and Quality Audit Reports

June 23-25, 2003	2003 RETS/REMP Workshop
January 20 - February 6, 2004	2004 DCPP Radioactive Effluents Program and Offsite Dose Calculation Program Audit

Section 2PS2: Radioactive Material Processing and Transportation

Transportation Packages and Shipments

RWS-03-001, RWS-03–003, RWS-04-001, RWS-04-002, and RWS-04-003

Action Requests

A0578207 A061000 A0610613 A0610617 A0623205 A0610594 A0610588 A0602319 A0610580 A0610586

Procedures

RP2.DC1, Radioactive Waste Classification Program, Revision 4A

RCP RW-3, Radioactive Waste Nuclide Fractions and Correlation Factor Determination, Revision 16A

RCP RW-4, Solid Radioactive Waste Shipment, Revision 24

RCP RW-5, Receiving, Loading and Releasing of Transport Vehicle for Radioactive Waste Shipment, Revision 13

RCP RW-8, Radioactive Waste Curie Content Calculations, Revision 4A

RCP RW-20, Spent Resin Sampling, Revision 4

RCP RW-21, Spent Media Sampling, Revision 4B

Audits and Self Assessments

2004 Solid Radioactive Waste Management and Radioactive Material Transportation Program Audit

Section 2PS3: Radiological Environmental Monitoring Program and Radioactive Material Control Program

Procedures

CAP A-8, Off-Site Dose Calculations, Revision 28

CY2, Radiological Monitoring and Controls Program, Revision 5

CY2.ID1, Radioactive Effluent Controls Program, Revision 7

RCP D-610, Control of Radioactive Materials, Revision 11

RCP D-614, Release of Solid Materials from Radiologically Controlled Areas, Revision 6A

RCP D-620, Control of Radioactive Sources, Revision 5A

RCP EM-1, Radiological Environmental Biological Sampling, Revision 5

RCP EM-2, Radiological Environmental Air Sampling, Revision 7

RCP EM-3, Use of Panasonic Environmental Thermoluminescent Dosimeters, Revision 3A

RP1.ID11, Radiological Monitoring Procedure, Revision 6

Work Orders

R0255623 Backup Meteorological Facility Equipment Calibration
R0260315 Calibration of Primary Meteorological Instrumentation Channels

Condition Reports

Environmental

A0605965	A0611992	A0623289	A0568154	A0576528	A0578716
A0582249	A0582229	A0582170	A0582102	A0576654	A0564876
A0593605	A0593613	A0587728	A0599807	A0600947	A0601369
A0610086	A0615430	A0605965	A0619583	A0619611	A0564876
A0573194	A0584392	A0586755	A0587803	A0587420	A0590649
A0593613	A0621367	A0591860	A0591856	A0591853	A0589633

A0588973 A0587803 A0586755 A0582372

Meteorology

A0584553 A0585688 A0589580 A0591443 A0591447 A0591943
A0592232 A0594781 A0602499 A0614674 A0614707

Radioactive Material Control

V0056562 V0055387 V0055386 V0050487 A0584931 A0577295
A0569316 A0597931 A0622203 A0622442 A0622317 A0625556
A0578953 A0577522 A0577100 A0577098 A0577093 A0576754
A0574698 A0574318 A0579843 A0623594 A0595263 A0615476
A0624523 A0587766 A0585841 A0611992 A0609151 A0622441
A0621942 A0621947 A0621948 A0628379 A0596423

Self-Assessments and Audit Reports

August 5, 2002	Radioactive Material Controls
June 23-25, 2003	2003 RETS/REMP Workshop
January 30, 2004	Self-Assessment of Cal-Poly Environmental Lab
August 27, 2004	Performance Testing of TLDs
December 16 - 19, 2003	2003 DCPP Dosimetry Laboratory Annual Management Review
January 20 - February 6, 2004	2004 DCPP Radioactive Effluents Program and Offsite Dose Calculation Program Audit
August 31 - September 23, 2004	2004 Radiological Environmental Monitoring Program Audit

Reports

2002 Annual Radiological Environmental Operating Report
2003 Annual Radiological Environmental Operating Report
2002 Annual Radioactive Effluent Release Report
2003 Annual Radioactive Effluent Release Report
2002 Land Use Census
2003 Land Use Census