UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
1600 EAST LAMAR BLVD
ARLINGTON, TEXAS 76011-4511

November 13, 2012

EA-12-238

Mr. Edward D. Halpin
Senior Vice President and
Chief Nuclear Officer
Pacific Gas and Electric Company
Diablo Canyon Power Plant
P.O. Box 56, Mail Code 104/6
Avila Beach, CA 93424

SUBJECT: DIABLO CANYON POWER PLANT - NRC INTEGRATED INSPECTION REPORT 05000275/2012004 AND 05000323/2012004

Dear Mr. Halpin:

On September 30, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Diablo Canyon Power Plant. The enclosed inspection report documents the inspection results which were discussed on October 2, 2012, with you and members of your staff. A supplemental exit meeting was held on November 8, 2012, with Mr. Barry Allen and other members of your staff.

The inspectors 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 license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the information developed during the inspection, the NRC has identified one issue that was evaluated under the risk significance determination process as having very low safety significance (green). Additionally, the NRC has determined that a traditional enforcement Severity Level IV violation occurred with this issue. The violation was evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at (http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html). The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. The violation is being cited in the Notice because you failed to restore compliance within a reasonable time after the violation was previously documented as a non-cited violation.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. If you have additional information that you believe the NRC should consider, you may provide it in your response to the Notice. The NRC review of your response to the Notice will also determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

If you contest the cited violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region IV; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Diablo Canyon Power Plant.

If you disagree with a cross-cutting aspect assignment in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region IV; and the NRC Resident Inspector at the Diablo Canyon Power Plant.

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

Sincerely,

/RA/

Neil F. O'Keefe, Chief
Project Branch B
Division of Reactor Projects

Docket Nos.: 05000275, 05000323
License Nos: DPR-80, DPR-82

Enclosure:
1. Notice of Violation EA-12-238
2. Inspection Report 05000275/2012004 and 05000323/2012004
   w/ Attachments:
   1. Supplemental Information
   2. Request For Information for Radiation Safety Inspection

cc w/ Enclosure: Electronic Distribution

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SUNSI Rev Compl.	☑Yes ☐ No	ADAMS	☑Yes ☐ No	Reviewer Initials	RCH
Publicly Avail.	☑Yes ☐ No	Sensitive	☐Yes ☑ No	Sens. Type Initials	RCH

SRI:DRP/B	SRI:DRP/B	RI:DRP/B	C:DRS/EB1	C:DRS/EB2	C:DRS/OB
DHOverland	MSPeck	LHMicewski	TRFarnholtz	GBMiller	VGGaddy
/RA via T/	***/RA via E/***	***/RA via T/***	***/RA/***	***/SGraves for/***	***/RA/***
11/1/12	11/9/12	11/13/12	11/6/12	11/6/12	11/5/12
C:DRS/PSB1	C:DRS/PSB2	C:DRS/TSB	C:ACES	BC:DRP/B	
MSHaire	GWerner	RKellar	HGepford	NFOKeefe	
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NOTICE OF VIOLATION

Pacific Gas and Electric Company
Diablo Canyon Power Plant

Docket Nos. 050-275, 050-323
License Nos. DPR-80, DPR-82
EA-12-238

During an NRC inspection, conducted from June 23 through September 30, 2012, one violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

> Title 10 CFR Part 50.71(e), "Maintenance of Records, Making of Reports," requires, in part, that the licensee shall update periodically the final safety analysis report (FSAR) originally submitted as part of the application for the license, to assure that the information included in the report contains the latest information developed.
>
> A letter from A. Giambusso, Director of Licensing, Atomic Energy Commission (AEC), to F.T. Searls, Pacific Gas and Electric, dated August 13, 1973, stated that Pacific Gas and Electric was required to meet the requirements of Regulatory Guide (RG) 1.70, "Standard Format and Content of the FSAR," Revision 1, for the Diablo Canyon Final Safety Analysis Report Update. Regulatory Guide 1.70, Section 3.1, "Conformance with AEC General Design Criteria," required the licensee to briefly discuss the extent to which the design criteria for the plant structures, systems, and components important to safety met each of the criteria in the AEC "General Design Criteria for Nuclear Power Plants," specified in Appendix A to 10 CFR Part 50. It further required that any exceptions to criteria be identified and the justification for each exception be discussed.
>
> Contrary to the above, since initial licensing, Pacific Gas and Electric failed to update the FSAR as required by 10 CFR 50.71(e). Specifically, Pacific Gas and Electric failed to update the FSARU to include the information describing the extent to which plant structures, systems, and components met 10 CFR Part 50, Appendix A, or describing and justifying exceptions to those General Design Criteria. This failure to update the Final Safety Analysis Report was previously identified as a non-cited violation in NRC's "Diablo Canyon Power Plant Integrated Inspection Report 05000275/2009003 and 05000323/2009003."

This violation is associated with a Green Significance Determination Process finding and a Severity Level IV violation.

Pursuant to the provisions of 10 CFR 2.201, Pacific Gas and Electric Company is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region IV, and a copy to the NRC Resident Inspector at the facility that is the subject of this Notice, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation; EA-12-238" and should include for the violation: (1) the reason for the violation, or, if contested, the

basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken, and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Because your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the public without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days of receipt

Dated this 13th day of November, 2012.

U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Docket:	05000275, 05000323
License:	DPR-80, DPR-82
Report:	05000275/20120004 05000323/20120004
Licensee:	Pacific Gas and Electric Company
Facility:	Diablo Canyon Power Plant, Units 1 and 2
Location:	7 ½ miles NW of Avila Beach Avila Beach, California
Dates:	June 23 through September 30, 2012
Inspectors:	D. Overland, Senior Resident Inspector M. Peck, Senior Resident Inspector L. Micewski, Resident Inspector M. Brown, Senior Resident Inspector, Palo Verde Nuclear Generating Station L. Carson II, Senior Health Physicist G. Kuzo, Senior Health Physicist, Region II J. Laughlin, Emergency Preparedness Inspector, NSIR J. O'Donnell, Health Physicist L. Ricketson, P.E., Senior Health Physicist
Approved By:	N. O'Keefe, Chief, Project Branch B Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000275/2012004, 05000323/2012004; 6/23/2012 – 9/30/2012; Diablo Canyon Power Plant, Integrated Resident and Regional Report; Plant Modifications

The report covered a 3-month period of inspection by resident inspectors and an announced baseline inspection by region-based inspectors. One Green cited violation of significance was identified. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter 0609, "Significance Determination Process." The cross-cutting aspect is determined using Inspection Manual Chapter 0310, "Components Within the Cross-Cutting Areas." Findings for which the significance determination process 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 4, dated December 2006.

A. NRC-Identified Findings and Self-Revealing Findings

Cornerstone: Mitigating Systems

- Green. The inspectors identified a cited violation of 10 CFR Part 50.71(e), "Maintenance of Records, Making of Reports," for failing to update the Final Safety Analysis Report. Specifically, the licensee failed to update the Final Safety Analysis Report to include the information describing the extent to which plant structures, systems, and components met 10 CFR 50, Appendix A, or describing and justifying exceptions to those General Design Criteria. This failure to update the Final Safety Analysis Report was previously identified as a non-cited violation in NRC's "Diablo Canyon Power Plant Integrated Inspection Report 05000275/2009003 and 05000323/2009003." The licensee entered the condition into the corrective action program as Notification 50513243.

  The failure to correct missing information that was required to be in the Final Safety Analysis Report Update was a performance deficiency. The inspectors concluded that the finding is more than minor because, if left uncorrected, this could lead to a more significant safety concern because future changes to the facility, procedures, and programs would not be able to consider the licensing basis information that was removed or never inserted. The finding was screened using Manual Chapter 0609, "Significance Determination Process." The inspectors concluded that the finding was of very low safety significance (Green) because while the finding was a deficiency affecting design or qualification of a mitigating system, it did not result in the loss of operability or functionality of a system. The finding also affected the NRC's ability to perform its regulatory function and was evaluated using the traditional enforcement process. The finding was determined to be Severity Level IV because the required information was not used to make an unacceptable change to the facility or procedures, which was consistent with the determination that the issue had very low safety significance. The inspectors concluded that this finding had a crosscutting aspect in the area of human performance associated with the decision making

component because the licensee did not use conservative assumptions in decision making and did not adopt a requirement to demonstrate that the proposed action is safe in order to proceed, [H.1(b)]. (Section 1R18.a)

B. Licensee-Identified Violations

No findings of significance were identified.

REPORT DETAILS

Summary of Plant Status

At the beginning of the inspection period, Pacific Gas and Electric (PG&E) Company was operating both units at full power.

On September 7, 2012, plant operators reduced both units to 50 percent power after marine debris fouled the main condenser cooling water screens. On September 8, the debris cleared and plant operators returned both units to full power operation.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01)

.1 Readiness for Seasonal Extreme Weather Conditions

a. Inspection Scope

The inspectors performed a review of the adverse weather procedures for winter storm season preparations during the week of July 18, 2012. The inspectors verified that weather-related equipment deficiencies identified during the previous year were corrected prior to the onset of seasonal extremes and evaluated the implementation of the adverse weather preparation procedures and compensatory measures for the affected conditions before the onset of, and during, the adverse weather conditions.

During the inspection, the inspectors focused on plant-specific design features and the procedures used by plant personnel to mitigate or respond to adverse weather conditions. Additionally, the inspectors reviewed the Final Safety Analysis Report Update (FSARU) and performance requirements for systems selected for inspection, and verified that operator actions were appropriate as specified by plant-specific procedures. Specific documents reviewed during this inspection are listed in the attachment. The inspectors also reviewed corrective action program items to verify that plant personnel were identifying adverse weather issues at an appropriate threshold and entering them into their corrective action program in accordance with station corrective action procedures. The inspectors' reviews focused specifically on the following plant systems:

- Units 1 and 2, Auxiliary saltwater system and circulating water system
- Units 1 and 2, Intake structure
- Intake cove breakwater structure

These activities constitute completion of one readiness for seasonal adverse weather sample as defined in Inspection Procedure 71111.01-05.

b. Findings

No findings were identified.

.2 Readiness to Cope with External Flooding

a. Inspection Scope

The inspectors evaluated the design, material condition, and procedures for coping with the design basis probable maximum flood. The evaluation included a review to check for deviations from the descriptions provided in the Final Safety Analysis Report Update for features intended to mitigate the potential for flooding from external factors. As part of this evaluation, the inspectors checked for obstructions that could prevent draining, checked that the roofs did not contain obvious loose items that could clog drains in the event of heavy precipitation, and determined that barriers required to mitigate the flood were in place and operable. Additionally, the inspectors performed an inspection of the protected area to identify any modification to the site that would inhibit site drainage during a probable maximum precipitation event or allow water ingress past a barrier. The inspectors also reviewed the abnormal operating procedure for mitigating the design basis flood to ensure it could be implemented as written. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one external flooding sample as defined in Inspection Procedure 71111.01-05.

b. Findings

No findings were identified.

1R04 Equipment Alignment (71111.04)

.1 Partial Walkdown

a. Inspection Scope

The inspectors performed partial system walkdowns of the following risk-significant systems:

- August 23, 2012, Unit 2, Centrifugal charging pump 2-1
- August 28, 2012, Unit 2, Auxiliary building ventilation system supply fan S-34
- August 29, 2012, Unit 2, Safety injection pump 2-2
- August 30, 2012, Unit 2, Emergency diesel generator 2-1

The inspectors selected these systems based on their risk significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors attempted

to identify any discrepancies that could affect the function of the system, and, therefore, potentially increase risk. The inspectors reviewed applicable operating procedures, system diagrams, Final Safety Analysis Report Update, technical specification requirements, administrative technical specifications, outstanding work orders, condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have rendered the systems incapable of performing their intended functions. The inspectors also inspected accessible portions of the systems to verify system components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no obvious deficiencies. The inspectors also verified that the licensee had properly identified and resolved equipment alignment problems that could cause initiating events or impact the capability of mitigating systems or barriers and entered them into the corrective action program with the appropriate significance characterization. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of four partial system walkdown samples as defined in Inspection Procedure 71111.04-05.

b. Findings

No findings were identified.

1R05 Fire Protection (71111.05)

.1 Quarterly Fire Inspection Tours

a. Inspection Scope

The inspectors conducted fire protection walkdowns that were focused on availability, accessibility, and the condition of firefighting equipment in the following risk-significant plant areas:

- June 30, 2012, Units 1 and 2, Fire Areas 6-A-1 and 6-B-1, vital battery and inverter switchgear, bus F
- July 2, 2012, Unit 2, Fire Area TB-12, bus H 4 kV cable spreading room and switchgear room
- July 27, 2012, Unit 2, Fire Areas 22-A-1, 22-B-1, and 22-C-1, emergency diesel generator rooms
- August 27, 2012, Unit 1, Fire Zone 3-M, safety injection pump room 1-2

The inspectors reviewed areas to assess if licensee personnel had implemented a fire protection program that adequately controlled combustibles and ignition sources within the plant; effectively maintained fire detection and suppression capability; maintained passive fire protection features in good material condition; and had implemented

adequate compensatory measures for out of service, degraded or inoperable fire protection equipment, systems, or features, in accordance with the licensee's fire plan. The inspectors selected fire areas based on their overall contribution to internal fire risk as documented in the plant's Individual Plant Examination of External Events with later additional insights, their potential to affect equipment that could initiate or mitigate a plant transient, or their impact on the plant's ability to respond to a security event. Using the documents listed in the attachment, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use; that fire detectors and sprinklers were unobstructed; that transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals appeared to be in satisfactory condition. The inspectors also verified that minor issues identified during the inspection were entered into the licensee's corrective action program. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of four quarterly fire protection inspection samples as defined in Inspection Procedure 71111.05-05.

b. Findings

No findings were identified.

.2 Annual Fire Protection Drill Observation (71111.05A)

a. Inspection Scope

On August 21, 2012, the inspectors observed a fire brigade activation for a drill simulation in the rotor storage building. The observation evaluated the readiness of the plant fire brigade to fight fires. The inspectors verified that the licensee staff identified deficiencies; openly discussed them in a self-critical manner at the drill debrief, and took appropriate corrective actions. Specific attributes evaluated were (1) proper wearing of turnout gear and self-contained breathing apparatus; (2) proper use and layout of fire hoses; (3) employment of appropriate fire fighting techniques; (4) sufficient firefighting equipment brought to the scene; (5) effectiveness of fire brigade leader communications, command, and control; (6) search for victims and propagation of the fire into other plant areas; (7) smoke removal operations; (8) utilization of preplanned strategies; (9) adherence to the preplanned drill scenario; and (10) drill objectives.

These activities constitute completion of one annual fire-protection inspection sample as defined in Inspection Procedure 71111.05-05.

b. Findings

No findings were identified.

1R11 Licensed Operator Requalification Program and Licensed Operator Performance (71111.11)

.1 Quarterly Review of Licensed Operator Requalification Program

a. Inspection Scope

On July 17, 2012, the inspectors observed a crew of licensed operators in the plant's simulator during training. The inspectors assessed the following areas:

- Licensed operator performance
- The quality of the training provided
- The modeling and performance of the control room simulator
- The quality of post-scenario critiques
- Follow-up actions taken by the licensee for identified discrepancies

These activities constitute completion of one quarterly licensed operator requalification program sample as defined in Inspection Procedure 71111.11.

b. Findings

No findings were identified.

.2 Quarterly Observation of Licensed Operator Performance

a. Inspection Scope

On September 4, 2012, the inspectors observed the performance of on-shift licensed operators in the plant's main control room. At the time of the observations, the plant was in a period of heightened activity due to suspicious packages found at the plant access road main gate. The inspectors observed the operators' performance of the following activities:

- Conduct of procedure and checklist for "Stranded Plant"
- Telephonic event notification to the NRC Headquarters Operations Officer
- Unit 1 turbine-driven auxiliary feedwater pump surveillance testing, including the pre-job brief
- Unit 1 turbine-driven auxiliary feedwater pump discharge valve inservice testing, including the pre-job brief

In addition, the inspectors assessed the operators' adherence to plant procedures, including Procedure OP1.DC10, "Conduct of Operations," and other operations department policies.

These activities constitute completion of one quarterly licensed-operator performance sample as defined in Inspection Procedure 71111.11.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors evaluated degraded performance issues involving the following risk significant systems:

- July 7, 2012, Unit 2 turbine-driven auxiliary feedwater pump functional failure, Notification 50476967
- July 19, 2012, Unit 1 fire, flooding, and/or radiation penetration seals failure trend, Notification 50468620

The inspectors reviewed events such as where ineffective equipment maintenance has resulted in valid or invalid automatic actuations of engineered safeguards systems and independently verified the licensee's actions to address system performance or condition problems in terms of the following:

- Implementing appropriate work practices
- Identifying and addressing common cause failures
- Scoping of systems in accordance with 10 CFR 50.65(b)
- Characterizing system reliability issues for performance
- Charging unavailability for performance
- Trending key parameters for condition monitoring
- Ensuring proper classification in accordance with 10 CFR 50.65(a)(1) or -(a)(2)
- Verifying appropriate performance criteria for structures, systems, and components classified as having an adequate demonstration of performance through preventive maintenance, as described in 10 CFR 50.65(a)(2), or as requiring the establishment of appropriate and adequate goals and corrective

actions for systems classified as not having adequate performance, as described in 10 CFR 50.65(a)(1)

The inspectors assessed performance issues with respect to the reliability, availability, and condition monitoring of the system. In addition, the inspectors verified maintenance effectiveness issues were entered into the corrective action program with the appropriate significance characterization. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of two quarterly maintenance effectiveness samples as defined in Inspection Procedure 71111.12-05.

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13)

a. Inspection Scope

The inspectors reviewed licensee personnel's evaluation and management of plant risk for the maintenance and emergent work activities affecting risk-significant and safety-related equipment listed below to verify that the appropriate risk assessments were performed prior to removing equipment for work:

- July 24, 2012, Surveillance testing of Unit 1 and 2 pressurizer power operated relief valves, PCV-455C, Work Orders 64078144 and 64078108

- July 25, 2012, Surveillance testing of Unit 2 solid state protection system actuation logic, Work Orders 6407920 and 64079348

- August 13, 2012, Emergent risk assessment of anticipated high load on 230 kV Los Padres offsite power network, Notification 50503487

The inspectors selected these activities based on potential risk significance relative to the reactor safety cornerstones. As applicable for each activity, the inspectors verified that licensee personnel performed risk assessments as required by 10 CFR 50.65(a)(4) and that the assessments were accurate and complete. When licensee personnel performed emergent work, the inspectors verified that the licensee personnel promptly assessed and managed plant risk. The inspectors reviewed the scope of maintenance work, discussed the results of the assessment with the licensee's probabilistic risk analyst or shift technical advisor, and verified plant conditions were consistent with the risk assessment. The inspectors also reviewed the technical specification requirements and inspected portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of three maintenance risk assessments and emergent work control inspection samples as defined in Inspection Procedure 71111.13-05.

b. Findings

No findings were identified.

1R15 Operability Evaluations and Functionality Assessments (71111.15)

a. Inspection Scope

The inspectors reviewed the following assessments:

- June 21, 2012, Unit 1, Notification 50493218, auxiliary feedwater control room hand controller temperature issue
- July 5, 2012, Unit 2, Notification 5049478, diesel generator arcing
- July 26, 2012, Units 1 and 2, Notification 50497328, incorrect atmospheric dispersion factor methodology used for the control room operator dose assessment
- August 2, 2012, Unit 1, Notification 50503767, failure of emergency diesel generator 1-3 fire protection system
- August 6, 2012, Units 1 and 2, Notification 50503487, failure to incorporate design basis requirement for offsite contingency in 230 kV station interface calculation
- September 5, 2012, Unit 1, Notification 50510639, incomplete auxiliary feedwater pump 1-1 postmaintenance surveillance test as a result of not meeting the speed range required to collect differential pressures

The inspectors selected these operability and functionality assessments based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the evaluations to ensure technical specification operability was properly justified and to verify the subject component or system remained available such that no unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the technical specifications and Final Safety Analysis Report Updated to the licensee's evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled. Additionally, the inspectors reviewed a sampling of corrective action documents to verify that the licensee was identifying and correcting any deficiencies associated with operability evaluations. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of six operability evaluations inspection samples as defined in Inspection Procedure 71111.15-05.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18)

Permanent Modification

a. Inspection Scope

The inspectors reviewed key affected parameters associated with energy needs, materials, replacement components, timing, heat removal, control signals, equipment protection from hazards, operations, flow paths, pressure boundary, ventilation boundary, structural, process medium properties, licensing basis, and failure modes for the permanent modification listed below:

- Replacement of Westinghouse 7100 process control system with programmable logic controller, Modification DDP 1000000237, Revision 1

The inspectors verified that modification preparation, staging, and implementation did not impair emergency/abnormal operating procedure actions, key safety functions, or operator response to loss of key safety functions; post-modification testing will maintain the plant in a safe configuration during testing by verifying that unintended system interactions will not occur; systems, structures and components' performance characteristics still meet the design basis; the modification design assumptions were appropriate; the modification test acceptance criteria will be met; and licensee personnel identified and implemented appropriate corrective actions associated with permanent plant modifications. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of one sample for permanent plant modifications as defined in Inspection Procedure 71111.18-05.

b. Findings

Introduction. The inspectors identified a Green finding and associated cited Severity Level IV violation of 10 CFR Part 50.71(e), "Maintenance of Records, Making of Reports." Pacific Gas and Electric failed to correct omissions from the Final Safety Analysis Report Update (FSARU) Section 3.1 that were required by Regulatory Guide 1.70, "Standard Format and Content of the FSAR," Revision 1.

Description. On August 1, 2012, the inspectors identified that the licensee improperly removed required information related to general design criteria (GDC) from FSARU Section 3.1. The information removed was addressed in a letter, from A. Giambusso,

Director of Licensing, Atomic Energy Commission (AEC), to F.T. Searls, Pacific Gas and Electric, dated August 13, 1973, which stated that Pacific Gas and Electric was required to meet the requirements of Regulatory Guide (RG) 1.70, "Standard Format and Content of the FSAR," Revision 1, for the Diablo Canyon Final Safety Analysis Report Update. Regulatory Guide 1.70, Section 3.1, "Conformance with AEC General Design Criteria," required the licensee to briefly discuss the extent to which the design criteria for the plant structures, systems, and components important to safety met each of the criteria in the AEC "General Design Criteria for Nuclear Power Plants," specified in Appendix A to 10 CFR Part 50. It further required that any exceptions to criteria be identified and the justification for each exception be discussed. The discussion of each of the criteria was to reference the sections of the Safety Analysis Report where more detailed information is presented.

In NUREG 0675, "Safety Evaluation Report Related to the Operation of Diablo Canyon Nuclear Power Plant, Units 1 and 2," Section 3.1, "Conformance with AEC General Design Criteria," the NRC stated that the Diablo Canyon Units 1 and 2 were designed and constructed on the basis of the proposed 1967 GDC, but the NRC was reviewing the plant against the newer 1971 GDCs in 10 CFR Part 50, Appendix A. Between 1973 and 1981, the NRC completed the Diablo Canyon license review, as documented in NUREG 0675, Supplements 1 through 33, ultimately concluding that the plant design conformed to the intent of the newer 1971 GDC, with the justified exceptions.

The last amendment to the Final Safety Analysis Report (Amendment 85), submitted by Pacific Gas and Electric with the amended license application, provided an incomplete description of the extent to which the plant design met the Appendix A GDC, including the exceptions and justifications. Pacific Gas and Electric subsequently submitted the required information in a letter to F. J. Miraglia, Division of Licensing, US NRC, from P. A. Crane, Pacific Gas and Electric, CHRON 131464, "Description of PG&E's compliance with the requirements 10 CFR 20, 50, and 100," dated September 10, 1981.

Despite submitting this information to the NRC, the full contents of this letter were not placed into Section 3.1 of the FSAR, nor any subsequent update, as required. This omission was recognized by the licensee in an internal memorandum to Nuclear Engineering and Construction Services entitled "General Design Criteria, Appendix A 10CFR 50," dated June 8, 1989, but was not corrected. As late as Revision 18 (2008) of FSARU Section 3.1 and Revision 17 (2006) of associated Appendix 3.1A, the GDC descriptions included only high level descriptions of how GDC were met, failed to describe most of the exceptions described in the 1981 letter, and failed to provide references to each FSARU section where more detailed information is presented in the discussion of each criteria. The inspectors concluded that the 1981 letter to the NRC contained most of the information required by RG 1.70, Revision 1, to be documented in Final Safety Analysis Report Section 3.1, and that this information was not adequately reflected in the Final Safety Analysis Report Update.

In 2009, the NRC documented a violation of 10 CFR 50.71(e) because the licensee had failed to update the FSARU to include the information described above (NCV 05000275;

323/2009003- 03). The licensee entered this issue into the corrective action program as Notification 50202606.

As described in the 1981 letter, Pacific Gas and Electric had stated that Diablo Canyon met the intent of each of these design basis requirements. The inspectors determined that the licensee had attempted to address this issue through their Licensing Basis Verification Project (LBVP). This project was tasked with reviewing, verifying, and updating the plant licensing bases. Notification 50264466, Task 3, described how the LBVP Review Board was unable to reach consensus on the applicability of the Appendix A GDC and how the GDC discussion should be documented in the Final Safety Analysis Report Update. The licensee made the non-conservative decision to delete Appendix 3.1A, effectively removing all references to the Appendix A requirements (with five exceptions) from FSARU Section 3. As a result, the inspectors concluded that the most significant contributor to the violation was non-conservative decision making, because the corrective action failed to correct the 2009 condition when the licensee concluded that references to the extent to which Appendix A GDC were met was not required to be in the FSARU.

Analysis. The failure to correct missing information that was required to be in the FSARU was a performance deficiency. The inspectors concluded that the finding is more than minor because, if left uncorrected, this could lead to a more significant safety concern because future changes being considered to the facility, procedures, and programs would not be able to consider the current licensing basis information that was removed or never inserted. The issue also affected the NRC's ability to perform its regulatory function.

This violation is associated with a finding that has been evaluated by the significance determination process (SDP) and communicated with an SDP color reflective of the safety impact of the deficient licensee performance. The SDP, however, does not specifically consider the regulatory process impact. Thus, although related to a common regulatory concern, it is necessary to address the violation and finding using different processes to correctly reflect both the regulatory importance of the violation and the safety significance of the associated finding.

The inspectors concluded that the finding was of very low safety significance (Green) because while the finding was a deficiency affecting design or qualification of a mitigating system, it did not result in the loss of operability or functionality of the system. The issue was also determined to be Severity Level IV because the required information was not used to make an unacceptable change to the facility or procedures, which was consistent with the determination that the issue had very low safety significance.

The inspectors concluded that this finding had a crosscutting aspect in the area of human performance associated with the decision making component because the licensee did not use conservative assumptions in decision making and did not adopt a requirement to demonstrate that the proposed action is safe in order to proceed rather than a requirement to demonstrate that it is unsafe in order to disapprove the action [H.1(b)].

Enforcement. Title 10 CFR Part 50.71(e), "Maintenance of Records, Making of Reports," requires, in part, that the licensee shall update periodically the final safety analysis report (FSAR) originally submitted as part of the application for the license, to assure that the information included in the report contains the latest information developed.

A letter from A. Giambusso, Director of Licensing, Atomic Energy Commission (AEC), to F.T. Searls, Pacific Gas and Electric, dated August 13, 1973, stated that Pacific Gas and Electric was required to meet the requirements of Regulatory Guide (RG) 1.70, "Standard Format and Content of the FSAR," Revision 1, for the Diablo Canyon Final Safety Analysis Report Update. Regulatory Guide 1.70, Section 3.1, "Conformance with AEC General Design Criteria," required the licensee to briefly discuss the extent to which the design criteria for the plant structures, systems, and components important to safety met each of the criteria in the AEC "General Design Criteria for Nuclear Power Plants," specified in Appendix A to 10 CFR Part 50. It further required that any exceptions to criteria be identified and the justification for each exception be discussed.

Contrary to the above, since initial licensing, Pacific Gas and Electric failed to update the FSAR as required by 10 CFR 50.71(e). Specifically, Pacific Gas and Electric failed to update the FSARU to include the information describing the extent to which plant structures, systems, and components met 10 CFR Part 50, Appendix A, or describing and justifying exceptions to those General Design Criteria.

This failure to update the Final Safety Analysis Report was previously identified as a non-cited violation in NRC's "Diablo Canyon Power Plant Integrated Inspection Report 05000275/2009003 and 05000323/2009003." Even though this finding is of very low safety significance and a Severity Level IV violation and was entered into the corrective action program as Notification 50513243, the violation is being cited in accordance with the Enforcement Policy in a Notice of Violation because the licensee failed to restore compliance within a reasonable time after the violation was previously documented as a non-cited violation: VIO 05000275;323/2012-004-01, "Failure to Incorporate Required Information in the Final Safety Analysis Report Update."

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed the following post-maintenance activities to verify that procedures and test activities were adequate to ensure system operability and functional capability:

- June 25, 2012, Unit 1, preventive maintenance of containment spray pump 11, Work Order 6406022
- July 12, 2012, Unit 1, relay replacement for containment fan cooler unit 1-2, Work Order 68018284

- August 2, 2012, Unit 2, preventive maintenance of control room ventilation system supply fan S-38, Work Order 64059187

- August 18, 2012, Unit 1, replacement of motor-driven auxiliary feed pump level control valve 110, Work Orders 60049492 and 64079884

- September 6, 2012, Unit 1, preventive maintenance on auxiliary feedwater pump 1-1, Work Orders 64081281 and 64048892

- September 20, 2012, Unit 1, post–modification testing for upgrade the process control system, Design Change package 1000000237

The inspectors selected these activities based upon the structure, system, or components' ability to affect risk. The inspectors evaluated these activities for the following:

- The effect of testing on the plant had been adequately addressed; testing was adequate for the maintenance performed

- Acceptance criteria were clear and demonstrated operational readiness; test instrumentation was appropriate

The inspectors evaluated the activities against the technical specifications, the Final Safety Analysis Report Update, 10 CFR Part 50 requirements, licensee procedures, and various NRC generic communications to ensure that the test results adequately ensured that the equipment met the licensing basis and design requirements. In addition, the inspectors reviewed corrective action documents associated with post-maintenance tests to determine whether the licensee was identifying problems and entering them in the corrective action program and that the problems were being corrected commensurate with their importance to safety. Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of six post-maintenance testing inspection samples as defined in Inspection Procedure 71111.19-05.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors reviewed the Final Safety Analysis Report Update, procedure requirements, and technical specifications to ensure that the surveillance activities listed below demonstrated that the systems, structures, and/or components tested were capable of performing their intended safety functions. The inspectors either witnessed

or reviewed test data to verify that the significant surveillance test attributes were adequate to address the following:

- Preconditioning
- Evaluation of testing impact on the plant
- Acceptance criteria
- Test equipment
- Procedures
- Jumper/lifted lead controls
- Test data
- Testing frequency and method demonstrated technical specification operability
- Test equipment removal
- Restoration of plant systems
- Fulfillment of American Society of Mechanical Engineers Code requirements
- Updating of performance indicator data
- Engineering evaluations, root causes, and bases for returning tested systems, structures, and components not meeting the test acceptance criteria were correct
- Reference setting data
- Annunciators and alarms setpoints

The inspectors also verified that licensee personnel identified and implemented any needed corrective actions associated with the surveillance testing.

- July 16, 2012, Units 1 and 2, reactor coolant leakage surveillance test
- August 29, 2012, Unit 2, safety injection pump 2-1 surveillance test
- September 4, 2012, Unit 1, inservice test of turbine-driven auxiliary feedwater pump 1-1 isolation valves

Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of three surveillance testing inspection samples as defined in Inspection Procedure 71111.22-05.

b. Findings

No findings were identified.

Cornerstone: Emergency Preparedness

1EP4 Emergency Action Level and Emergency Plan Changes (IP 71114.04)

a. Inspection Scope

The NSIR Headquarters staff performed an in-office review of the latest revisions of various Emergency Plan Implementing Procedures (EPIPs) and the Emergency Plan located under ADAMS accession number ML12200A133 as listed in the Attachment.

The licensee determined that in accordance with 10 CFR 50.54(q), the changes made in the revisions resulted in no reduction in the effectiveness of the Plan, and that the revised Plan continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR Part 50. The NRC review was not documented in a safety evaluation report and did not constitute approval of licensee-generated changes; therefore, this revision is subject to future inspection. The specific documents reviewed during this inspection are listed in the Attachment.

These activities constitute completion of eight samples as defined in Inspection Procedure 71114.04-05.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06)

.1 Emergency Preparedness Drill Observation

a. Inspection Scope

The inspectors evaluated the conduct of a routine licensee emergency drill on July 25, 2012, to identify any weaknesses and deficiencies in classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations in the Technical Support Center to determine whether the event classification, notifications, and protective action recommendations were performed in accordance with procedures. The inspectors also attended the licensee drill critique to compare any inspector-observed weakness with those identified by the licensee staff in order to evaluate the critique and to verify whether the licensee staff was properly identifying weaknesses and entering them into the corrective action program. As part of the inspection, the inspectors reviewed the drill package and other documents listed in the attachment.

These activities constitute completion of one sample as defined in Inspection Procedure 71114.06-05.

b. Findings

No findings were identified.

.2 Training Observations

a. Inspection Scope

The inspectors observed a simulator training evolution for licensed operators on August 8, 2012, which required emergency plan implementation by a licensee operations crew. This evolution was planned to be evaluated and included in performance indicator data regarding drill and exercise performance. The inspectors observed event classification and notification activities performed by the crew. The inspectors also attended the post-evolution critique for the scenario. The focus of the inspectors' activities was to note any weaknesses and deficiencies in the crew's performance and ensure that the licensee evaluators noted the same issues and entered them into the corrective action program. As part of the inspection, the inspectors reviewed the scenario package and other documents listed in the attachment.

These activities constitute completion of one sample as defined in Inspection Procedure 71114.06-05.

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstone: Occupational and Public Radiation Safety

2RS5 Radiation Monitoring Instrumentation (71124.05)

a. Inspection Scope

This area was inspected to verify the licensee is assuring the accuracy and operability of radiation monitoring instruments that are used to: (1) monitor areas, materials, and workers to ensure a radiologically safe work environment; and (2) detect and quantify radioactive process streams and effluent releases. The inspectors used the requirements in 10 CFR Part 20, the technical specifications, and the licensee's procedures required by technical specifications as criteria for determining compliance. During the inspection, the inspectors interviewed licensee personnel, performed walkdowns of various portions of the plant, and reviewed the following items:

- Selected plant configurations and alignments of process, post-accident, and effluent monitors with descriptions in the Final Safety Analysis Report and the offsite dose calculation manual

- Select instrumentation, including effluent monitoring instrument, portable survey instruments, area radiation monitors, continuous air monitors, personnel contamination monitors, portal monitors, and small article monitors to examine their configurations and source checks

- Calibration and testing of process and effluent monitors, laboratory instrumentation, whole body counters, post-accident monitoring instrumentation, portal monitors, personnel contamination monitors, small article monitors, portable survey instruments, area radiation monitors, electronic dosimetry, air samplers, continuous air monitors

- Audits, self-assessments, and corrective action documents related to radiation monitoring instrumentation since the last inspection

Specific documents reviewed during this inspection are listed in the attachment. These activities constitute completion of the one required sample as defined in Inspection Procedure 71124.05-05.

b. Findings

No findings were identified.

2RS6 Radioactive Gaseous and Liquid Effluent Treatment (71124.06)

a. Inspection Scope

This area was inspected to: (1) ensure the gaseous and liquid effluent processing systems are maintained so radiological discharges are properly mitigated, monitored, and evaluated with respect to public exposure; (2) ensure abnormal radioactive gaseous or liquid discharges and conditions, when effluent radiation monitors are out-of-service, are controlled in accordance with the applicable regulatory requirements and licensee procedures; (3) verify the licensee's quality control program ensures the radioactive effluent sampling and analysis requirements are satisfied so discharges of radioactive materials are adequately quantified and evaluated; and (4) verify the adequacy of public dose projections resulting from radioactive effluent discharges. The inspectors used the requirements in 10 CFR Part 20; 10 CFR Part 50, Appendices A and I; 40 CFR Part 190; the Offsite Dose Calculation Manual, and licensee procedures required by the Technical Specifications as criteria for determining compliance. The inspectors interviewed licensee personnel and reviewed and/or observed the following items:

- Radiological effluent release reports since the previous inspection and reports related to the effluent program issued since the previous inspection, if any

- Effluent program implementing procedures, including sampling, monitor setpoint determinations and dose calculations

- Equipment configuration and flow paths of selected gaseous and liquid discharge system components, filtered ventilation system material condition, and significant changes to their effluent release points, if any, and associated 10 CFR 50.59 reviews

- Selected portions of the routine processing and discharge of radioactive gaseous and liquid effluents (including sample collection and analysis)

- Controls used to ensure representative sampling and appropriate compensatory sampling

- Results of the inter-laboratory comparison program

- Effluent stack flow rates

- Surveillance test results of technical specification-required ventilation effluent discharge systems since the previous inspection

- Significant changes in reported dose values, if any

- A selection of radioactive liquid and gaseous waste discharge permits

- Part 61 analyses and methods used to determine which isotopes are included in the source term

- Offsite dose calculation manual changes, if any

- Meteorological dispersion and deposition factors

- Latest land use census

- Records of abnormal gaseous or liquid tank discharges, if any

- Groundwater monitoring results

- Changes to the licensee's written program for indentifying and controlling contaminated spills/leaks to groundwater, if any

- Identified leakage or spill events and entries made into 10 CFR 50.75 (g) records, if any, and associated evaluations of the extent of the contamination and the radiological source term

- Offsite notifications and reports of events associated with spills, leaks, or groundwater monitoring results, if any

- Audits, self-assessments, reports, and corrective action documents related to radioactive gaseous and liquid effluent treatment since the last inspection

- Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of the one required sample, as defined in Inspection Procedure 71124.06-05.

b. Findings

No findings were identified.

2RS7 Radiological Environmental Monitoring Program (71124.07)

a. Inspection Scope

This area was inspected to: (1) ensure that the radiological environmental monitoring program verifies the impact of radioactive effluent releases to the environment and sufficiently validates the integrity of the radioactive gaseous and liquid effluent release program; (2) verify that the radiological environmental monitoring program is implemented consistent with the licensee's technical specifications and/or offsite dose calculation manual, and to validate that the radioactive effluent release program meets the design objective contained in Appendix I to 10 CFR Part 50; and (3) ensure that the radiological environmental monitoring program monitors non-effluent exposure pathways, is based on sound principles and assumptions, and validates that doses to members of the public are within the dose limits of 10 CFR Part 20 and 40 CFR Part 190, as applicable. The inspectors reviewed and/or observed the following items:

- Annual environmental monitoring reports and offsite dose calculation manual

- Selected air sampling and thermoluminescence dosimeter monitoring stations

- Collection and preparation of environmental samples

- Operability, calibration, and maintenance of meteorological instruments

- Selected events documented in the annual environmental monitoring report which involved a missed sample, inoperable sampler, lost thermoluminescence dosimeter, or anomalous measurement

- Selected structures, systems, or components that may contain licensed material and has a credible mechanism for licensed material to reach ground water

- Records required by 10 CFR 50.75(g)

- Significant changes made by the licensee to the offsite dose calculation manual as the result of changes to the land census or sampler station modifications since the last inspection

- Calibration and maintenance records for selected air samplers, composite water samplers, and environmental sample radiation measurement instrumentation

- Inter-laboratory comparison program results

- Audits, self-assessments, reports, and corrective action documents related to the radiological environmental monitoring program since the last inspection

- Specific documents reviewed during this inspection are listed in the attachment.

These activities constitute completion of the one required sample as defined in Inspection Procedure 71124.07-05.

b. Findings

No findings were identified.

2RS8 Radioactive Solid Waste Processing, and Radioactive Material Handling, Storage, and Transportation (71124.08)

a. Inspection Scope

This area was inspected to verify the effectiveness of the licensee's programs for processing, handling, storage, and transportation of radioactive material. The inspectors used the requirements of 10 CFR Parts 20, 61, and 71 and Department of Transportation regulations contained in 49 CFR Parts 171-180 for determining compliance. The inspectors interviewed licensee personnel and reviewed the following items:

- The solid radioactive waste system description, process control program, and the scope of the licensee's audit program

- Control of radioactive waste storage areas including container labeling/marking and monitoring containers for deformation or signs of waste decomposition

- Changes to the liquid and solid waste processing system configuration including a review of waste processing equipment that is not operational or abandoned in place

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

- Processes for waste classification including use of scaling factors and 10 CFR Part 61 analysis

- Shipment packaging, surveying, labeling, marking, placarding, vehicle checking, driver instructing, and preparation of the disposal manifest

- Audits, self-assessments, reports, and corrective action reports radioactive solid waste processing, and radioactive material handling, storage, and transportation performed since the last inspection

- Specific documents reviewed during this inspection are listed in the attachment

These activities constitute completion of the one required sample as defined in Inspection Procedure 71124.08-05

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, Emergency Preparedness, Public Radiation Safety, Occupational Radiation Safety, and Security

4OA1 Performance Indicator Verification (71151)

.1 Data Submission Issue

a. Inspection Scope

The inspectors performed a review of the performance indicator data submitted by the licensee for the second quarter 2012 performance indicators for any obvious inconsistencies prior to its public release in accordance with Inspection Manual Chapter 0608, “Performance Indicator Program.”

This review was performed as part of the inspectors’ normal plant status activities and, as such, did not constitute a separate inspection sample.

b. Findings

No findings were identified.

.2 Mitigating Systems Performance Index - Heat Removal System (MS08)

a. Inspection Scope

The inspectors sampled licensee submittals for the mitigating systems performance index - heat removal system performance indicator for Diablo Canyon Units 1 and 2 for the period from the second quarter 2011 through the second quarter 2012. To determine the accuracy of the performance indicator data reported during those periods, the inspectors used definitions and guidance contained in Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6. The inspectors reviewed the licensee's operator narrative logs, issue reports, event reports, mitigating systems performance index derivation reports, and NRC integrated inspection reports for the period of July 2011 through June 2012 to validate the accuracy of the submittals. The inspectors reviewed the mitigating systems performance index component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of two mitigating systems performance index heat removal system samples as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

.3 Mitigating Systems Performance Index - Residual Heat Removal System (MS09)

a. Inspection Scope

The inspectors sampled licensee submittals for the mitigating systems performance index - residual heat removal system performance indicator for Diablo Canyon Units 1 and 2 for the period from the second quarter 2011 through the second quarter 2012. To determine the accuracy of the performance indicator data reported during those periods, the inspectors used definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6. The inspectors reviewed the licensee's operator narrative logs, issue reports, mitigating systems performance index derivation reports, event reports, and NRC integrated inspection reports for the period of July 2011 through June 2012 to validate the accuracy of the submittals. The inspectors reviewed the mitigating systems performance index component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of two mitigating systems performance index residual heat removal system samples as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

.4 Mitigating Systems Performance Index - Cooling Water Systems (MS10)

a. Inspection Scope

The inspectors sampled licensee submittals for the mitigating systems performance index - cooling water systems performance indicator for Diablo Canyon Units 1 and 2 for the period from the second quarter 2011 through the second quarter 2012. To determine the accuracy of the performance indicator data reported during those periods, the inspectors used definitions and guidance contained in NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6. The inspectors reviewed the licensee's operator narrative logs, issue reports, mitigating systems performance index derivation reports, event reports, and NRC integrated inspection reports for the period of July 2011 through June 2012 to validate the accuracy of the submittals. The inspectors reviewed the mitigating systems performance index component risk coefficient to determine if it had changed by more than 25 percent in value since the previous inspection, and if so, that the change was in accordance with applicable NEI guidance. The inspectors also reviewed the licensee's issue report database to determine if any problems had been identified with the performance indicator data collected or transmitted for this indicator and none were identified. Specific documents reviewed are described in the attachment to this report.

These activities constitute completion of two mitigating systems performance index cooling water system samples as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

4OA2 Problem Identification and Resolution (71152)

.1 Routine Review of Identification and Resolution of Problems

a. Inspection Scope

As part of the various baseline inspection procedures discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that they were being entered into the licensee's corrective action program at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed. The inspectors reviewed attributes that included the complete and accurate

identification of the problem; the timely correction, commensurate with the safety significance; the evaluation and disposition of performance issues, generic implications, common causes, contributing factors, root causes, extent of condition reviews, and previous occurrences reviews; and the classification, prioritization, focus, and timeliness of corrective actions. Minor issues entered into the licensee's corrective action program because of the inspectors' observations are included in the attached list of documents reviewed.

These routine reviews for the identification and resolution of problems did not constitute any additional inspection samples. Instead, by procedure, they were considered an integral part of the inspections performed during the quarter and documented in Section 1 of this report.

b. Findings

No findings were identified.

.2 Daily Corrective Action Program Reviews

a. Inspection Scope

In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's corrective action program. The inspectors accomplished this through review of the station's daily corrective action documents.

The inspectors performed these daily reviews as part of their daily plant status monitoring activities and, as such, did not constitute any separate inspection samples.

b. Findings

No findings were identified.

.3 Selected Issue Follow-up Inspection

a. Inspection Scope

During a review of items entered in the licensee's corrective action program, the inspectors recognized a corrective action item documenting a potential issue with qualifications of an electrical maintenance contractor who was used as a supervisor during the reactor vessel head replacement project. The inspectors reviewed ANSI/ANS 3.1-1978 to determine the licensee's compliance with the standard.

These activities constitute completion of one in-depth problem identification and resolution sample as defined in Inspection Procedure 71152-05.

b. Findings

No findings were identified.

4OA5 Other Activities

.1 (Closed) Temporary Instruction 2515/185 "Follow-up on the Industry's Ground Water Protection Initiative"

a. Inspection Scope

The ground water protection program was inspected March 19-22, 2012, to determine whether the licensee had implemented the program elements which were found to be incomplete when previously reviewed during NRC Inspection 05000275/2008009; 05000323/2008009. Inspectors interviewed cognizant licensee personnel and performed walk-downs.

The following elements had been implemented since the previous review:

Element 1.2.a - Identify each SSC and work practice that involves or could reasonably be expected to involve licensed material and for which there is a credible mechanism for the licensed material to reach ground water.

Element 1.2.b - Identify existing leak detection methods for each SSC and work practice that involves or could involve licensed material and for which there is a credible potential for inadvertent releases to ground water.

Element 1.2.c - Identify potential enhancements to leak detection systems or programs. These may include additional or increased frequency of rounds or walk downs or inspections, or integrity testing.

Element 1.2.d - Identify potential enhancements to prevent spills or leaks from reaching ground water.

Element 1.2.e - Identify the mechanism or site process for tracking corrective actions.

Element 1.2.f - Establish long term programs to perform preventative maintenance or surveillance activities to minimize the potential for inadvertent releases of licensed materials due to equipment failure.

Element 1.2.g - Establish the frequency for periodic reviews of SSCs and work practices.

Element 1.4.a - Establish written procedures outlining the decision making process for remediation of leaks and spills or other instances of inadvertent releases. This process is site specific and shall consider migration pathways.

Element 1.4.b - Evaluate the potential for detectible levels of licensed material resulting from planned releases of liquids and/or airborne materials.

Element 1.4.c - Evaluate and document, as appropriate, decommissioning impacts resulting from remediation activities or the absence thereof.

Element 2.2.a - Communication to the designated State/Local officials shall be made before the end of the next business day if an inadvertent leak or spill to the environment has or can potentially get into the ground water and exceeds set criteria.

Element 2.2.b - Communication with the designated State/Local officials shall be made before the end of the next business day for a specified water sample result.

Element 2.2.c - When communicating to the State/Local officials, be clear and precise in quantifying the actual release information as it applies to the appropriate regulatory criteria (i.e., put it in perspective) and provide specified information as part of the informal communication.

Element 2.2.d - Voluntary communication to State and/or Local officials may also require NRC notification under 10 CFR 50.72(b)(2)(xi). Licensees should perform these notifications consistent with their existing program.

Element 3.1.c - The self-assessment, at a minimum, shall include evaluating implementation of all of the objectives identified in this document.

b. Findings

No findings were identified. All elements have been implemented.

4OA6 Meetings, Including Exit

Exit Meeting Summary

On July 12, 2012, the inspectors presented the results of the radiation safety inspections to Mr. E. Halpin, Chief Nuclear Officer, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On September 25, 2012, a telephonic exit meeting was conducted with Mr. M. McCoy, Regulatory Services, during which the inspector characterized the results of the in-office review of the additional information provided by the licensee following the radiation safety inspection team's departure from the site. The inspector asked the licensee representative whether any materials examined during the in-office inspection should be considered proprietary. No proprietary information was identified.

On October 2, 2012, the resident inspectors presented the inspection results to Mr. E. Halpin, Chief Nuclear Officer, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On November 8, 2012, the resident inspectors presented the final results of the GDC finding to Mr. B. Allen, Site Vice President, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

B. Allen, Site Vice President
T. Baldwin, Manager, Regulatory Services
M. Barnby, Health Physicist, Radiation Protection
A. Bates, Director, Engineering Services
J. Becker, Site Vice President
M. Culala, Interim Director, Quality Verification
T. Cuddy, Senior Manager, Communications
R. Gagne, Supervisor, Radiation Protection
Y. Gagne, Supervisor, Radiation Protection
J. Gardner, Supervising Engineer, Chemistry
E. Halpin, Chief Nuclear Officer
K. Hinrichsen, Instrument Foreman, Radiation Protection
T. Hook, Environmental Services Technician, Radiation Protection
T. Irving, Manager, Radiation Protection
J. Knemeyer, Engineer, Chemistry
C. Miller, Radwaste Engineer, Radiation Protection
M. McCoy, NRC Interface, Regulatory Services
E. Nelson, Senior Manager, License Basis Verification Project
K. O'Neil, Systems Engineer, Engineering Services
P. Lawrence, System Engineer, Engineering Services
O. Sabi, Environmental Services Technician, Radiation Protection
L. Sewell, Lead Engineer, Radiation Protection
M. Wright, REMP Engineering, Radiation Protection

*

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

05000275; 05000323/2012004-01	VIO	Inadequate Corrective Actions to Update the Final Safety Analysis Report Update with Required Information (Section 1R18)

Discussed

05000275; 05000323/2009003-03	NCV	Failure to Update the FSARU with Current Plant Design Criteria (Section 1R18)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

PROCEDURES

NUMBER	TITLE	REVISION
OP O-28	Intake Management	12
CP M-12	Stranded Plant	4
STP M-90B	Annual Surveillance of Diablo Canyon Breakwaters	4

NOTIFICATIONS

50496003

DRAWINGS

NUMBER	TITLE	REVISION
4038875	Civil Grading Modifications For Used Fuel Vertical Cask Transporter Path 115' RCA Bench	1
438040	Unit 1 Civil Finished Grading Plan Plant Area	41
438042	Unit 1 & 2 Civil Finished Grading Plan Plant Area	23
4016302	Civil DFO Storage Tank Installation & Miscellaneous Plan, Details & Sections	1
4016303	Civil DFO Storage Tank Miscellaneous Details	4
4016304	Civil DFO Storage Tank Miscellaneous Details	1
4016305	Civil DFO Storage Tank Miscellaneous Details	1
4016309	Civil DFO Storage Tank Miscellaneous Details	1

Section 1R04: Equipment Alignment

PROCEDURES

NUMBER	TITLE	REVISION
DCM S-9	Safety Injection System	27
DCM S-23B	Auxiliary Building Ventilation System	21
DCM S-21	Diesel Engine System	21A

NOTIFICATIONS

50032470 50032504

Section 1R05: Fire Protection

PROCEDURES

NUMBER	TITLE	REVISION / DATE
OM8.ID1	Fire Loss Prevention	22
OM8.ID2	Fire System Impairment	16
OM8.ID4	Control of Flammable and Combustible Materials	19
STP M-70A	Inspection of Fire Barrier and HELB Penetration Seals	6
ECG 18.7	Fire Rated Assemblies	7

OTHER DOCUMENTS

	Fire Drill Guide – Rotor Storage Building	May 22, 2012

Section 1R11: Licensed Operator Requalification Program

PROCEDURES

NUMBER	TITLE	REVISION
Lesson R121S4	Steam Generator Tube Rupture with Safety Injection	0A
OP1.DC10	Conduct of Operations	30
CP M-12	Stranded Plant	4

Section 1R12: Maintenance Effectiveness

PROCEDURES

NUMBER	TITLE	REVISION
MA1.ID17	Maintenance Rule Monitoring Program	23

NOTIFICATIONS

50468620 50464977

OTHER DOCUMENTS

Maintenance Rule Expert Panel Meeting 190, July 19, 2012

Maintenance Rule Expert Panel Meeting 190 Minutes, July 19, 2012

Section 1R13: Maintenance Risk Assessment and Emergent Work Controls

PROCEDURES

NUMBER	TITLE	REVISION
AD7.DC6	On-Line Risk Management	20
STP I-38-B.2	SSPS Train B SI Reset timer and Slave relay K602 Test	9
STP I-38-B.1	SSPS Train B Actuation Logic Test in Modes 1, 2, 3, or 4	21
STP I-36-PORV	PORV PCV-455C Actuation Logic Test	4

Section 1R15: Operability Evaluations

MISCELLANEOUS DOCUMENTS

NUMBER	TITLE	REVISION / DATE
14078101-RADR-001-0	Technical Report prepared by Stone & Webster, Inc. "Control Room Doses Following a Loss-of-Coolant Accident, Support of a Prompt Operability Assessment with respect to Dose Analysis Deficiencies"	September 2012
STP P-AFW-11	Routine Surveillance Test of Turbine-Driven Auxiliary Feedwater Pump 1-1	32

NOTIFICATIONS

50493270	50493218	5049567	50509692	50510639

Section 1R18: Plant Modifications

PROCEDURES

NUMBER	TITLE	REVISION
CF3.ID9	Design Change Development	41
STP M-51	Routine Surveillance Test of Containment Fan Cooler Units	31
PMT 99.01	U1 Process Control System Set I Start-Up	0
PMT 99.02	U1 Process Control System Set II Start-Up	0

PROCEDURES

NUMBER	TITLE	REVISION
PMT 99.03	U1 Process Control System Set III Start-Up	0
PMT 99.04	U1 Process Control System Set IV Start-Up	0
PMT 99.05	U1 Process Control System Supplemental Verification Testing	0
AD1.ID2	Procedure Process Control	34
TS3.ID2	Licensing Basis Impact Evaluations	32

MISCELLANEOUS DOCUMENTS

NUMBER	TITLE	REVISION / DATE
DDP 10000237	Replace Unit 1 7100 Process Controls	1
DCP 10000236	Main Turbine Control System Changes	1
FC 30001709	Class 1E Cable Splices	May 17, 2012
FC 30001608	Resolved QA concerns	March 1, 2012
FC 30001393	YM-412H Moore Module	May 29, 2012
FC 30001427	Rack Arrangement	May 11, 2012
DDN 20000441	Eagle 21 Racks 21, 13, & 14	0

Section 1R19: Post-Maintenance Testing

PROCEDURES

NUMBER	TITLE	REVISION
AD13.DC1	Control of the Surveillance Test Program,	37
STP-P-CSP-11	Routine Surveillance Test of Containment Spray Pump 1-1	12
PMT 23.74	CFCU 1-2 Time Delay Relays Replacement Test UNIT 1	1
STP M-51	Routine Surveillance Test of Containment Fan Cooler Units	31
PMT 99.01	U1 Process Control System Set I Start-Up	0
PMT 99.02	U1 Process Control System Set II Start-Up	0
PMT 99.03	U1 Process Control System Set III Start-Up	0
PMT 99.04	U1 Process Control System Set IV Start-Up	0
PMT 99.05	U1 Process Control System Supplemental Verification Testing	0

PROCEDURES

NUMBER	TITLE	REVISION
AD.13	Test Control	3
AD13.1D	Control of Plant and Equipment Tests	12
STP V-3P6A	Exercising Valves LCV-110 and LCV-111 Auxiliary Feedwater Pump Discharge	19
STP V-2U1D	Exercising S/G No.1 AFW Supply Valves LCV-106 and LCV-110	8
MP M-23-FAN.5	Preventive Maintenance of Control Room Ventilation System	1
STP P-AFW-11	Routine Surveillance Test of Turbine-Driven Auxiliary Feedwater Pump 1-1	32
PMT 99.06	Process Control System 10% Load Reduction Test	0

Section 1R22: Surveillance Testing

PROCEDURES

NUMBER	TITLE	REVISION
STP I-1B	Routine Daily Checks required by Licenses Unit 1	121
STP I-1B	Routine Daily Checks required by Licenses Unit 2	102
STP P-SIP-21	Routine Surveillance Test of Safety Injection Pump 2-1	24
STP V-3P5	Exercising Valves LCV-106, 107, 108, and 109 Auxiliary Feedwater Pump Discharge	20
STP G-15B	Determination of Valve Stroke Times with Equipment Timers	5

Section 1EP4: Emergency Action Level and Emergency Plan Changes

MISCELLANEOUS DOCUMENTS

NUMBER	TITLE	REVISION
	Emergency Plan, Section 4:Change 12	4
	Emergency Plan, Section 6, Change 11	4
	Emergency Plan, Section 7, Change 16	4
	Emergency Plan, Section 8, Change 11	4
	Emergency Plan, Appendix D, Category H, Change 2	4
EP G-1	Emergency Classification and Emergency Plan Activation	42

MISCELLANEOUS DOCUMENTS

NUMBER	TITLE	REVISION
EP EF-3	Activation and Operation of the Emergency Operations Facility	35
EP EF-11	Operation of Alternate Emergency Response Facilities	0

Section 1EP6: Drill Evaluation

MISCELLANEOUS DOCUMENTS

NUMBER	TITLE	DATE
ECTL1203	ERO Key Position Drill, DEP Opportunity #3	June 13, 2012
	Diablo Canyon Power Plant Emergency Planning Team Bravo Full Scope Drill Critique	July 25, 2012
	Diablo Canyon Power Plant Emergency Planning Scenario Synopsis/Event Description	August 8, 2012
	Final Timeline, Scenario Event Description	August 8, 2012
	Drill Objectives for Charlie Full-Scope Drill Conducted 8/8/2012	August 8, 2012
	Diablo Canyon Power Plant Emergency Planning Team Charlie Full Scope Drill Critique	August 8, 2012

Section 2RS5: Radiation Monitoring Instrumentation

PROCEDURES

NUMBER	TITLE	REVISION
CY2.ID1	Radioactive Effluent Controls Program	11
RP1.DC5	Radiation Protection Instrumentation Calibration Program	6
CY2	Radiological Monitoring and Controls Program	7
MP I-RD04	Calibration of Eberline Model PNR-4 Portable Neutron REM Counter	5
RDP D-970	Radiation Protection Instrument Calibration Schedule	17

AUDITS, SELF-ASSESSMENTS, AND SURVEILLANCES

NUMBER	TITLE	DATE
FileNET# 100610010	2010 Radiation Protection Programs Audit	July 27, 2010

AUDITS, SELF-ASSESSMENTS, AND SURVEILLANCES

NUMBER	TITLE	DATE
FileNET# 120330015	2012 Radiation Protection Programs Audit	May 17, 2012
	Self-Assessment – Radiation Monitoring Instrumentation	April 12, 2012

NOTIFICATIONS

50498173	50498125	50443496	50445697	50446423

CALIBRATION RECORDS - PORTABLE INSTRUMENTS

NUMBER	TITLE	DATE
RP 01.14.030	Ludlum Model 177	May 24, 2012
RP 01.15.002	Ludlum Model 3	April 6, 2012
RP 03.22.036	MGP Amp-100	February 14, 2012
RP 04.38.004	Thermo AMS-4	February 22, 2012
RP 03.07.036	Thermo 6112B	May 1, 2012
RP 03.32.050	RadEye G	November 23, 2011
RP 03.09.019	Eberline RO-2	June 3, 2012
RP 03.05.002	Eberline PNR-4	December 14, 2011
173487	Thermo Electronic Dosimeter	February 3, 2012
105102	Thermo Electronic Dosimeter	July 3, 2012

CALIBRATION RECORDS – CONTAMINATION MONITORS

NUMBER	TITLE	DATE
RP 06.25.03	Small Article Monitor	August 31, 2011
RP 05.13.001	Canberra GEM-5	August 5, 2011
RP 05.12.008	Canberra Argos	August 4, 2011

CALIBRATION RECORDS – INSTALLED INSTRUMENTS

NUMBER	TITLE	DATE
64028277	Unit 1 Steam Generator Blowdown Discharge (1-RM-23)	November 17, 2011

CALIBRATION RECORDS – INSTALLED INSTRUMENTS

NUMBER	TITLE	DATE
64034498	Unit 1 Steam Generator Blowdown Discharge (1-FR-53)	November 3, 2011
64028071	Unit 2 Plant Vent – Noble Gas Monitor (2-RM-14)	December 5, 2011
64028078	Unit 2 Plant Vent – Iodine Monitor (2-RM-24)	December 5, 2011
64028072	Unit 2 Plant Vent – Particulate Monitor (2-RM-28)	December 5, 2011
64021637	Unit 2 Plant Vent – Flow (2-FR-12)	January 6, 2011
64019096	Unit 1 Plant Vent – Hi Range (1-RM-29)	September 17, 2011
64019088	Unit 1 Containment – Hi Range (1-RM-30)	March 8, 2011
64019083	Unit 1 Condenser Air Ejector (1-RM-15)	November 20, 2010
64018713	Unit 1 Component Cooling Water (1-RM-17A)	June 6, 2011

CALIBRATION RECORDS – WHOLE BODY COUNTER

NUMBER	TITLE	DATE
	Canberra ABACOS-2000 FastScan Counting System	June 12, 2012

MISCELLANEOUS DOCUMENTS

NUMBER	TITLE	DATE
DC 678622-86-1	Calibration of RADECO Model 255 Liquid Monitors(SAI-272-79-926LJ)	September 1979
	Calibration of RADECO Model 255 Liquid Monitors(SAI-272-81-355LJ)	October 1981
	Unit 1 – Quarterly System Health Reports for Radiation Monitors (4)	April 1, 2011 – March 31, 2012
	Unit 2 – Quarterly System Health Reports for Radiation Monitors (4)	April 1, 2011 – March 31, 2012
	Results of Radiochemistry Cross Check Program(2Q10 – 4Q11)	November 11, 2011

Section 2RS6: Radioactive Gaseous and Liquid Effluent Treatment

PROCEDURES

NUMBER	TITLE	REVISION
STP I-39-F816.B	Calibration of Plant Vent Isokinetic Sample System	7

Section 2RS6: Radioactive Gaseous and Liquid Effluent Treatment

PROCEDURES

NUMBER	TITLE	REVISION
STP I-39-R28C	Plant Vent Discharge Normal Range Skid Isokinetic Flow Control Calibration	6
STP I-18M1	Control Room Air Intake Monitor Functional Test (RM-25 & 26) Unit 1	
CAP Q-6	Radiochemical Cross Check Program	3
CAP B-53	Gamma Spectroscopy System Equipment	9
STP G-11	Obtaining Charcoal Filter Media for Laboratory Testing (Methylodine)	17

NOTIFICATIONS

50480516 50480122 50369169 50420839

RELEASE PERMITS

PERMIT TITLE	DATE
Gas Decay Tank Discharge, Batch Number 2012-1-1	June 8, 2012
Gas Decay Tank Discharge, Batch Number 2012-1-2	July 12, 2012
Liquid Radwaste Release, Batch Number 2012-0-60	June 29, 2012

IN-PLACE FILTER TESTING RECORDS

SYSTEM	TEST	DATE
Unit 1 Auxiliary Building	DOP and Halide Penetration Test	April 16, 2012
Unit 1 Auxiliary Building	Laboratory Testing (Methyl Iodine)	April 24, 2012

MISCELLANEOUS DOCUMENTS

NUMBER	TITLE	DATE
	2011 Annual Radioactive Effluent Release Report	April 30, 2012
	2010 Annual Radioactive Effluent Release Report	April 28, 2011

MISCELLANEOUS DOCUMENTS

NUMBER	TITLE	DATE
	Annual Report Supporting Documentation for Diablo Canyon Power Plant Carbon-14 Production, Release and Dose Calculation for Calendar Year (CY) 2010 and CY 2011	
	Work Order Number 13,467, DC-6-11487-5-2, Isokinetic Sampling Flow Control Data, Design and Operating Criteria	May 9, 1991
DC6011487/221 1, Drawing Number 03035008	Upper Splitter	March 29, 1991
DDP 1000000475-000-00	LBIE Screen Applicability Determination TS3.ID2 Attachment 8.1, Unit 1 Auxiliary Building Ventilation System Flow Re-Balance	October 27, 2011
DDP 1000000476-000-00	LBIE Screen Applicability Determination TS3.ID2 Attachment 8.1, Unit 2 Auxiliary Building Ventilation System Flow Re-Balance	October 27, 2011
	Results of Radiochemistry Cross Check Program, PG&E Diablo Canyon, CY 2011, 1st through 4th Quarter; CY 2010, 1st through 4th Quarter	

Section 2RS7: Radiological Environmental Monitoring Program

PROCEDURES

NUMBER	TITLE	REVISION
CY2	Radiological Monitoring and Controls Program	7
CAP A-8	Off-Site Dose Calculation	35
RP1.ID11	Environmental Radiological Monitoring Procedure	10
RCP EM-5	DCPP Groundwater Sampling	3
RCP EM-4	Area TLD Monitoring	3
RCP EM-2	Radiological Environmental Air Sampling	13
RCP EM-1	Radiological Environmental Biological Sampling	11

AUDITS, SELF-ASSESSMENTS, AND SURVEILLANCES

NUMBER	TITLE	DATE
120330015	2012 Radiation Protection Programs Audit	May 17, 2012
NUPIC 22873	GEL Laboratories, LLC	December 13, 2011
22873	NUPIC Audit of GEL Laboratories, LLC	April 16, 2012
100610010	Radiation Protection Programs Audit	July 27, 2010
120330015	Radiation Protection Programs Audit	May 17, 2012

NOTIFICATIONS

50451981 50355971 50496770 50496771

CALIBRATION AND MAINTENANCE RECORDS

NUMBER	TITLE	DATE
3194	Environmental Air Sampler	March 29, 2012
8095	Environmental Air Sampler	April 19, 2012
8096	Environmental Air Sampler	April 19, 2012
8703	Environmental Air Sampler	April 19, 2012
8082	Environmental Air Sampler	April 19, 2012
A64072015	Primary Meteorological Instrument Channel	April 16, 2012
64065793	Primary Meteorological Instrument Channel	September 16, 2011
64059815	Backup Meteorological Instrument Channel	August 22, 2011

MISCELLANEOUS DOCUMENTS

TITLE	REVISION / DATE
2011 Annual Radiological Environmental Operating Report Diablo Canyon Power Plant	0
2011 Annual Radiological Environmental Operating Report Diablo Canyon Power Plant	0
2011 Land Use Census	0
2010 Land Use Census	0
2011 Annual Quality Assurance Report for the Radiological Environmental Monitoring Program (REMP)	0

MISCELLANEOUS DOCUMENTS

TITLE	REVISION / DATE
2010 Annual Quality Assurance Report for the Radiological Environmental Monitoring Program (REMP)	0
2011 REMP LLD White Paper	April 28, 2011

Section 2RS8: Radioactive Solid Waste Processing and Radioactive Material handling, Storage, and Transportation

PROCEDURES

NUMBER	TITLE	REVISION
RCP D-631	Radioactive Material Shipments	10
RCP RW-3	Radioactive Waste Nuclide Fractions and Correlation Factors Determination	18
RCP RW-4	Solid Radioactive Waste Shipments	29
RCP RW-5	Receiving, Loading, and Releasing of Transport Vehicle for Radioactive Waste Shipment	14

AUDITS, SELF-ASSESSMENTS, AND SURVEILLANCES

NUMBER	TITLE	DATE
	Radiation Protection Program Audit 2010	July 2010
50451982	NRC IP 71124.08 Self Assessment	June 2012

NOTIFICATIONS

50341624	50342552	50355971	50387647	50441813
50442074	50442742	50442743	50442744	50443006
50443019	50443020	50482464	504482734	50484395
50498110	5049869	50484110	50320216	50333304

RADIOACTIVE MATERIAL SHIPMENTS

NUMBER	TITLE	DATE
RMS-12-028	Solid Material for Release	April 12, 2012
RMS-12-027	Dry Active Waste for Processing	April 12, 2012
RWS-12-001	Metal Oxide-Resin for Processing & Disposal	March 28, 2012

RADIOACTIVE MATERIAL SHIPMENTS

NUMBER	TITLE	DATE
RWS-11-001	Metal Oxide-Resin for Processing & Disposal	April 20, 2011
RWS-11-002	Dry Active Waste for Processing & Disposal	November 01, 2011
RMS-12-044	Dry Active Waste for Processing	May 17, 2012
RMS-11-080	Metal Oxides for Processing & Disposal	July 19, 2011
RWS-10-001	Metal Oxide-Resin for Processing & Disposal	April 14, 2012
RMS-10-054	Dry Active Waste for Processing	July 28, 2010

MISCELLANEOUS DOCUMENTS

NUMBER	TITLE	REVISION/ DATE
	2010 Annual Radiological Effluent Release Report	
	2011 Annual Radiological Effluent Release Report	
	Updated Safety Analysis Report – Chapter 11 Radioactive Waste Management	20
	Updated Safety Analysis Report – Chapter 12: Radiation Protection	20
DCP-C-049739	Licensing Based Impact Evaluation	November 2, 2006

Section 4OA1: Performance Indicator Verification

NOTIFICATIONS

50476926 50491007 50490559

MISCELLANEOUS DOCUMENTS

NUMBER	TITLE	DATE
	MSPI Systems – AFW, RHR, CWS – April 2011 Through June 2012 – Logs and Derivation Reports	August 7, 2012

Section 4OA2: Identification and Resolution of Problems

NOTIFICATIONS

50497337

Section 4OA5: Other Activities

PROCEDURES

NUMBER	TITLE	REVISION
RP1.ID13	Contamination Control and Groundwater Protection Initiative Program	2
TS5.ID3	Buried Piping and Tank Program	3

NOTIFICATIONS

50430741 50429982 50336948

MISCELLANEOUS DOCUMENTS

TITLE	DATE
Groundwater Gradient Analysis	June 2012

LIST OF ACRONYMS

ADAMS	Agencywide Document Access and Management System
ANSI	American National Standards Institute
CFR	Code of Federal Regulations
FSARU	Final Safety Analysis Report Update
LER	Licensee Event Report
NCV	Non-cited Violation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
PG&E	Pacific Gas and Electric
SSC	Structures, Systems and Components

The following items are requested for the
Radiation Safety Inspection
at Diablo Canyon
July 9 – 12, 2012
Integrated Report 2012004

Inspection areas are listed below.

Please provide the requested information on or before **June 14, 2012**.

Please submit this information using the same lettering system as below. For example, all contacts and phone numbers for Inspection Procedure 71124.01 should be in a file/folder titled "1- A," applicable organization charts in file/folder "1- B," etc.

If information is placed on *ims.certrec.com*, please ensure the inspection exit date entered is at least 30 days later than the onsite inspection dates, so the inspectors will have access to the information while writing the report.

In addition to the corrective action document lists provided for each inspection procedure listed below, please provide updated lists of corrective action documents at the entrance meeting. The dates for these lists should range from the end dates of the original lists to the day of the entrance meeting.

If more than one inspection procedure is to be conducted and the information requests appear to be redundant, there is no need to provide duplicate copies. Enter a note explaining in which file the information can be found.

If you have any questions or comments, please contact Larry Ricketson at (817) 200-1165 or Larry.Ricketson@nrc.gov.

PAPERWORK REDUCTION ACT STATEMENT

This letter does not contain new or amended information collection requirements subject to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). Existing information collection requirements were approved by the Office of Management and Budget, control number 3150-0011.

5. Radiation Monitoring Instrumentation (71124.05)

Date of Last Inspection: December 5, 2011

A. List of contacts and telephone numbers for the following areas:
   1. Effluent monitor calibration
   3 Radiation protection instrument calibration
   4. Installed instrument calibrations
   5. Count room and Laboratory instrument calibrations

B. Applicable organization charts

C. Copies of audits, self-assessments, vendor or NUPIC audits for contractor support and LERs, written since date of last inspection, related to:
   1. Area radiation monitors, continuous air monitors, criticality monitors, portable survey instruments, electronic dosimeters, teledosimetry, personnel contamination monitors, or whole body counters
   2. Installed radiation monitors

D. Procedure index for:
   1. Calibration, use and operation of continuous air monitors, criticality monitors, portable survey instruments, temporary area radiation monitors, electronic dosimeters, teledosimetry, personnel contamination monitors, and whole body counters.
   2. Calibration of installed radiation monitors

E. Please provide specific procedures related to the following areas. Additional Specific Procedures will be requested by number after the inspector reviews the procedure indexes.
   1. Calibration of portable radiation detection instruments (for portable ion chambers)
   2. Whole body counter calibration
   3. Laboratory instrumentation quality control

F. A summary list of corrective action documents (including corporate and subtiered systems) written since date of last inspection, related to the following programs:
   1. Area radiation monitors, continuous air monitors, criticality monitors, portable survey instruments, electronic dosimeters, teledosimetry, personnel contamination monitors, whole body counters,
   2. Installed radiation monitors,
   3. Effluent radiation monitors
   4. Count room radiation instruments

NOTE; The lists should indicate the <u>significance level</u> of each issue and the <u>search criteria</u> used.

G. Offsite dose calculation manual, technical requirements manual, or licensee controlled specifications which lists the effluent monitors and calibration requirements.

H. Current calibration data for the whole body counter's.

I. Primary to secondary source calibration correlation for effluent monitors.

J. A list of the point of discharge effluent monitors with the two most recent calibration dates and the work order numbers associated with the calibrations.

6. Radioactive Gaseous And Liquid Effluent Treatment (71124.06)

Date of Last Inspection: May 24, 2010

A. List of contacts and telephone numbers for the following areas:
   1. Radiological effluent control
   2. Engineered safety feature air cleaning systems

B. Applicable organization charts

C. Audits, self assessments, vendor or NUPIC audits of contractor support, and LERs written since date of last inspection, related to:
   1. Radioactive effluents
   2. Engineered Safety Feature Air cleaning systems

D. Procedure indexes for the following areas
   1. Radioactive effluents
   2. Engineered Safety Feature Air cleaning systems

E. Please provide specific procedures related to the following areas. Additional Specific Procedures will be requested by number after the inspector reviews the procedure indexes.
   1. Sampling of radioactive effluents
   2. Sample analysis
   3. Generating radioactive effluent release permits
   4. Laboratory instrumentation quality control
   5. In-place testing of HEPA filters and charcoal adsorbers
   7. New or applicable procedures for effluent programs (e.g., including ground water monitoring programs),

F. List of corrective action documents (including corporate and subtiered systems) written since date of last inspection, associated with:
   1. Radioactive effluents
   2. Effluent radiation monitors
   3. Engineered Safety Feature Air cleaning systems

NOTE; The lists should indicate the significance level of each issue and the search criteria used.

G. 2010 and 2011 Annual Radioactive Effluent Release Report

H. Current Copy of the Offsite Dose Calculation Manual

I. Copy of the 2010 and 2011 interlaboratory comparison results for laboratory quality control performance of effluent sample analysis

J. Effluent sampling schedule for the week of the inspection

K. New entries into 10 CFR 50.75(g) files since date of last inspection

L. Operations Dept (or other responsible dept) log records for effluent monitors removed from service or out of service

M. Listing or log of liquid and gaseous release permits since date of last inspection

N. For technical specification-required air cleaning systems, the most recent surveillance test results of in-place filter testing (of HEPA filters and charcoal adsorbers) and laboratory testing (of charcoal efficiency)

7. Radiological Environmental Monitoring Program (71124.07)
Date of Last Inspection: May 24, 2010

List of contacts and telephone numbers for the following areas:

1. Radiological environmental monitoring
2. Meteorological monitoring

B. Applicable organization charts

C. Audits, self assessments, vendor or NUPIC audits of contractor support, and LERs written since date of last inspection, related to:

1. Radiological environmental monitoring program (including contractor environmental laboratory audits, if used to perform environmental program functions)
2. Environmental TLD processing facility
3. Meteorological monitoring program

D. Procedure index for the following areas:

1 Radiological environmental monitoring program
2 Meteorological monitoring program

E. Please provide specific procedures related to the following areas. Additional Specific Procedures will be requested by number after the inspector reviews the procedure indexes.

1. Environmental Program Description
2. Sampling, collection and preparation of environmental samples
4. Sample analysis (if applicable)
5. Laboratory instrumentation quality control
6. Procedures associated with the Offsite Dose Calculation Manual
7. Appropriate QA Audit and program procedures, and/or sections of the station's QA manual (which pertain to the REMP)

F. A summary list of corrective action documents (including corporate and subtiered systems) written since date of last inspection, related to the following programs:

1. Radiological environmental monitoring
2. Meteorological monitoring

NOTE; The lists should indicate the significance level of each issue and the search criteria used.

G. Wind Rose data and evaluations used for establishing environmental sampling locations

H. Copies of the 2 most recent calibration packages for the meteorological tower instruments

I. Copy of the 2010 and 2011 Annual Radiological Environmental Operating Report and Land Use Census, and current revision of the Offsite Dose Calculation Manual

J. Copy of the environmental laboratory's interlaboratory comparison program results for 2010 and 2011, if not included in the annual radiological environmental operating report

K. Data from the environmental laboratory documenting the analytical detection sensitivities for the various environmental sample media (ie. air, water, soil, vegetation, and milk)

L. Quality Assurance audits (e.g. NUPIC) for contracted services
M. Current NEI Groundwater Initiative Plan and status

8. Radioactive Solid Waste Processing, and Radioactive Material Handling, Storage, and Transportation (71124.08)

Date of Last Inspection: May 24, 2010

A. List of contacts and telephone numbers for the following areas:
   1. Solid Radioactive waste processing
   2. Transportation of radioactive material/waste

B. Applicable organization charts (and list of personnel involved in solid radwaste processing, transferring, and transportation of radioactive waste/materials)

C. Copies of audits, department self-assessments, and LERs written since date of last inspection related to:
   1. Solid radioactive waste management
   2. Radioactive material/waste transportation program

D. Procedure index for the following areas:
   1. Solid radioactive waste management
   2. Radioactive material/waste transportation

E Please provide specific procedures related to the following areas. Additional Specific Procedures will be requested by number after the inspector reviews the procedure indexes.
   1. Process control program
   2. Solid and liquid radioactive waste processing
   3. Radioactive material/waste shipping
   4. Methodology used for waste concentration averaging, if applicable
   5. Waste stream sampling and analysis

F. A summary list of corrective action documents (including corporate and subtiered systems) written since date of last inspection related to:
   1. Solid radioactive waste
   2. Transportation of radioactive material/waste

NOTE: The lists should indicate the <u>significance level</u> of each issue and the <u>search criteria</u> used.

G. Copies of training lesson plans for 49CFR172 subpart H, for radwaste processing, packaging, and shipping.

H. A summary of radioactive material and radioactive waste shipments made from date of last inspection to present

I. Waste stream sample analyses results and resulting scaling factors for 2010 and 2011

J. Waste classification reports if performed by vendors (such as for irradiated hardware)

<u>Although it is not necessary to compile the following information, the inspector will also review:</u>

K. Training, and qualifications records of personnel responsible for the conduct of radioactive waste processing, package preparation, and shipping

Temporary Instruction 2515/185, Revision 1,
Follow-Up On The Industry's Ground Water Protection Initiative

As documented in the integrated Inspection Report 2008009, you had not fully implemented some of the elements of Nuclear Energy Institute 07-07, at the time of the inspection. Please provide the status of each of these elements. If the element has not been fully implemented, please provide a copy of the corrective action document and specific corrective action assignment that ensures implementation of the element.

These elements were 1.2a, 1.2b, 1.2c, 1.2d, 1.2e, 1.2f, 1.2g, 1.4a, 1.4b, 1.4c, 2.2a, 2.2b, 2.2c, 2.2d, and 3.1c.