



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

August 12, 2013

EA 2012-075

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 05000275/2013003 AND 05000323/2013003

Dear Mr. Halpin:

On June 30, 2013, 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 July 8, 2013, with you and 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.

One NRC identified finding of very low safety significance (Green) was identified during this inspection. This finding was determined to involve a violation of NRC requirements.

Additionally, four licensee-identified violations which were determined to be of very low safety significance are listed in this report. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2a of the Enforcement Policy.

If you contest these noncited violations, 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 Diablo Canyon.

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 Diablo Canyon.

E. Halpin

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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: Inspection Report 05000275/2013003 and 05000323/2013003  
w/Attachments: Supplemental Information

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**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION IV**

Docket: 05000275; 05000323

License: DPR-80; DPR-82

Report: 05000275/2013003; 05000323/2013003

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: March 24 through June 30, 2013

Inspectors: T. Hipschman, Senior Resident Inspector  
L. Micewski, Resident Inspector  
T. Farina, Operations Engineer  
C. Osterholtz, Senior Operations Engineer  
D. Strickland, Operations Engineer

Approved By: N. O'Keefe, Chief, Project Branch B  
Division of Reactor Projects

## SUMMARY OF FINDINGS

IR 05000275/2013003, 05000323/2013003, 05000323/2013003; 03/24/2013 – 06/30/2013; Diablo Canyon Power Plant, Integrated Resident and Regional Report; Licensed Operator Requalification, and Fire Protection

The report covered a 3-month period of inspection by resident inspectors and an announced baseline inspection by region-based inspectors. One Green non-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: Initiating Events

Green. The inspectors identified a Green non-cited violation of the licensee's approved fire protection program as defined in Diablo Canyon Facility Operating License Conditions 2.C(5) for Unit 1 and 2.C(4) for Unit 2 involving the failure to effectively implement the fire protection program. Specifically, the inspectors identified multiple examples where the licensee failed to maintain control and tracking of combustible materials, welding equipment, and oxygen/acetylene rigs in the plant. The licensee entered the condition into the corrective action program as Notifications 50510062, 50511864, 50561959, and 50537650.

The failure to effectively implement all fire prevention controls and processes as required in the approved fire protection program was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external events (fire) attribute of the Initiating Events Cornerstone and it adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions. Using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process," the inspectors concluded that the finding was of very low safety significance (Green) because each deficiency was rated as "Low" degradation because for the violations of the hot work permitting program, all normally required fire prevention measures remained in place and for the violations of the transient combustibles control program, the materials involved did not significantly increase the fire frequency. This finding had a cross-cutting aspect in the area of human performance associated with the work practices component, because the cause of the performance deficiency involved the licensee not ensuring supervisory and management oversight of work activities, such that nuclear safety was supported [H.4(c)]. (Section 1R05)

**B. Licensee-Identified Violations**

Violations of very low safety significance, which were identified by the licensee, have been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and corrective action tracking numbers (condition report numbers) are listed in Section 4OA7.

## REPORT DETAILS

### Summary of Plant Status

At the beginning of the inspection period, Pacific Gas and Electric (PG&E) Company was operating Unit 1 at full power, and Unit 2 was operating at 28 percent power after completing a scheduled refueling and maintenance outage. Unit 2 reached full power on March 27, and remained at full power through the end of the inspection period. On June 26, Unit 1 was shut down as required by Technical Specification 3.0.3 as a result of the residual heat removal (RHR) system being declared inoperable following identification of a cracked weld. Unit 1 remained shutdown at the end of the inspection period.

### 1. REACTOR SAFETY

#### Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness

#### 1R04 Equipment Alignment (71111.04)

##### .1 Partial Walkdown

##### a. Inspection Scope

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

- April 16, 2013, Unit 2, Control room ventilation pressurization system
- April 17, 2013, Unit 1, Vital DC buses 1-2 and 1-3 and associated battery chargers
- May 28, 2013, Unit 2, Turbine-driven auxiliary feed pump

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 three 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:

- March 21, 2013, Unit 1, Fire Area 7-A, Cable spreading room
- April 22, 2013, Unit 2, Fire Area 3-AA, Cable spreading room
- April 23, 2013, Unit 1, Fire Area 11-A-1, Emergency diesel generator room 1-1
- April 24, 2013, Unit 2, Fire Area TB-7, Turbine building elevation 85'
- May 10, 2013, Unit 2, Fire Zone 3-N, Safety injection pump room
- June 6, 2013, Unit 1, Fire Zones 22-A-1, 22-B-1, 22-C-1, Emergency diesel generator rooms 2-1, 2-2, and 2-3
- June 26, 2013, Unit 1, Fire Zone 12-A, 4kV switchgear room

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 seven quarterly fire-protection inspection samples as defined in Inspection Procedure 71111.05-05.

b. Findings – Failure to Effectively Implement the Fire Protection Program

Introduction. The inspectors identified a Green non-cited violation of the licensee's approved fire protection program as defined in Diablo Canyon Facility Operating License Conditions 2.C(5) for Unit 1, and 2.C(4) for Unit 2, involving multiple examples of failure to effectively implement the fire protection program.

Description. On May 10, 2013, during a plant walkdown, the inspectors identified that an acetylene bottle was staged in Fire Zone 3-L outside the Unit 2 safety injection pump room. The Hot Work Permit associated with the work order stated that no acetylene bottle was being used in the area. The acetylene bottle was also not listed on the Transient Combustible Permit, nor had it been added to the combustible loading calculation for the fire zone. The permits were associated with maintenance work on Safety Injection Pump 2-1. Initially, it was planned that acetylene would not be needed. However, the scope of maintenance expanded, and on May 9, 2013, the acetylene equipment was brought in to the work staging area. The licensee did not revise the Hot Work Permit or the Transient Combustible Permit at this time. Therefore, when the inspectors identified the acetylene bottle on May 10, it had already been in the plant for greater than one shift, which was contrary to the requirements of OM8.ID4 "Control of Flammable and Combustible Materials." In addition, using the acetylene bottle while not authorized by a Hot Work Permit is contrary to the requirements of OM8.ID1 "Fire Loss Prevention." The licensee entered this issue into the corrective action program as Notification 50561959 and immediately updated both the Hot Work Permit and the Transient Combustible Permit.

On February 4, 2013, during a plant walkdown, the inspectors identified that several items had been staged in the Component Cooling Water heat exchanger room in preparation for cleaning and maintenance during the scheduled refueling outage. The associated Transient Combustible Permit did not list the following items that were present: four large plywood covers made of untreated wood, five boxes of nylon tubing and two cases of brush-like cleaning tools. Station Procedure OM8.ID4, "Control of Flammable and Combustible Materials," specified that fire protection engineering is responsible for determining compensatory measures when combustibles are brought into plant areas, including updating the combustible loading calculations. Procedure OM8.ID4 also stated that when wood must be used in areas containing safety-related equipment, only wood that is pressure-impregnated with fire retardant should be used. It further stated that if fire retardant wood or other suitably treated wood is not available, fire protection engineering must be contacted for their approval. Contrary to this, combustible materials, including untreated wood, that were brought into the Component Cooling Water heat exchanger room were omitted from the Transient

Combustible Permit process. This subverted the fire protection engineer's calculation of combustible loading and determination of compensatory measures for all the unlisted materials, and also circumvented the approval process for using untreated wood in the plant. The licensee entered this issue into the corrective action program as Notification 50537650, and implemented the corrective action of briefing all mechanical maintenance crews on the importance of OM8.ID4 compliance and the Transient Combustible Permit process.

On September 10, 2012, during a plant walkdown, the inspectors identified that an acetylene bottle was present in the Unit 2 Auxiliary Building near the containment spray pumps and containment spray chemical addition tank in Fire Zone 3-G. The bottle was staged for welding in accordance with an approved work order for installation of piping for an emergency eyewash station upgrade. The Hot Work Permit associated with the work order stated that no acetylene bottles were being used in the area. The licensee entered this issue into the corrective action program as Notification 50511864. The licensee's engineering assessment of this event focused narrowly on the fact that the acetylene bottle was also not listed on the Transient Combustible Permit. Station Procedure OM8.ID4, "Control of Flammable and Combustible Materials," Revision 20, required the Transient Combustible Permit to accurately reflect all transient combustibles at the work site for greater than one shift. The evaluation concluded that since the acetylene bottle was removed from the plant at the end of the shift, it was not required to be listed on the Transient Combustible Permit, and therefore no violation of OM8.ID4 had occurred. However, the evaluation did not address the fact that whenever the acetylene bottle was in use, Procedure OM8.ID1 "Fire Loss Prevention," Revision 24, required the Fire Watch to confirm the conditions of the Hot Work Permit, which did not allow the bottle to be at the work site.

Analysis. The failure to effectively implement all provisions of the approved fire protection program was a performance deficiency. The performance deficiency was more than minor because it was associated with the protection against external events (fire) attribute of the Initiating Events Cornerstone and it adversely affected the cornerstone objective of limiting the likelihood of events that upset plant stability and challenge critical safety functions. The inspectors evaluated this finding using Inspection Manual Chapter 0609, Appendix F, "Fire Protection Significance Determination Process." The finding affected the fire protection defense-in-depth strategies involving fire prevention and administrative controls. Using Inspection Manual Chapter 0609, Appendix F, Attachment 2 "Degradation Rating Guidance Specific to Various Fire Protection Program Elements" each deficiency was rated as "Low" degradation because for the violations of the hot work permitting program, all normally required fire prevention measures (e.g., a properly equipped and trained fire watch) remained in place, and for the violations of the transient combustibles control program, the materials involved did not significantly increase the fire frequency, because they were not low flashpoint liquids (below 200 F) in unapproved containers or self igniting combustibles. Therefore, the subject finding was of very low safety significance (Green). This finding had a cross-cutting aspect in the area of human performance associated with the work practices component, because the cause for the performance deficiency involved the licensee not ensuring supervisory and management oversight of work activities, such that nuclear safety was supported. Specifically, neither supervisors nor managers for the

welding or mechanical craft verified that equipment and materials at job sites in the plant were adequately tracked and authorized through the hot work and transient combustible permitting programs. [H.4(c)]

Enforcement. Diablo Canyon Facility Operating License Conditions 2.C(5) for Unit 1 and 2.C(4) for Unit 2, "Fire Protection," required Pacific Gas and Electric to implement and maintain all provisions of the approved fire protection plan as described by the Final Safety Analysis Report Update (FSARU). FSARU, Appendix 9.5a, "Fire Hazards Analysis," required that the licensee maintain control of flammable and combustible materials in the plant in accordance with Station Procedure OM8.ID4, "Control of Flammable and Combustible Materials," Revision 20. Procedure OM8.ID4 also referenced Station Procedure OM8.ID1, "Fire Loss Prevention," Revision 24, which required the licensee to maintain control and tracking of welding equipment and oxygen/acetylene rigs in the plant.

Contrary to the above, on September 10, 2012 and May 10, 2013, the inspectors identified an acetylene bottle at a job site that was neither authorized by the OM8.ID1 hotwork permit, nor included on the transient combustible permit or in the combustible loading calculation required by OM8.ID4. Also contrary to the above, on February 4, 2013, the inspectors identified combustible materials in the plant that were not accounted for on the approved transient combustible permit. Because this finding was of very low safety significance and was entered into the corrective action program as Notifications 50510062, 50511864, 50561959, and 50537650, this violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the NRC Enforcement Policy: NCV 05000275/2013003-01, 05000323/2013003-01, "Failure to Implement Fire Protection Program."

.2 Annual Fire Protection Drill Observation (71111.05A)

a. Inspection Scope

On May 9, 2013, the inspectors observed a fire brigade activation for a simulated electrical cabinet fire in the Unit 1 vital 4kV train "F" switchgear room. 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 April 30, 2013, the inspectors observed a crew of licensed operators in the plant's simulator during requalification testing. The inspectors assessed the following areas:

- Licensed operator performance
- The ability of the licensee to administer the evaluations
- The quality of post-scenario critiques

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 April 18, 2013, 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 risk due to emergent maintenance on Unit 1 vital battery 11.

On June 26, 2013, the inspectors observed the performance of on-shift licensed operators in the plant's main control room during periods of changing power levels and the Unit 1 shutdown for a forced outage in order to make repairs to the residual heat removal system.

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.

.3 Biennial Requalification Inspection

The licensed operator requalification program involves two training cycles that are conducted over a 2-year period. In the first cycle, the annual cycle, the operators are administered an operating test consisting of job performance measures and simulator scenarios. In the second part of the training cycle, the biennial cycle, operators are administered an operating test and a comprehensive written examination.

a. Inspection Scope

To assess the performance effectiveness of the licensed operator requalification program, the inspectors conducted personnel interviews, reviewed both the operating tests and written examinations, and observed ongoing operating test activities.

The inspectors reviewed operator performance on the written exams and operating tests. These reviews included observations of portions of the operating tests by the inspectors. The operating tests observed included four job performance measures and two scenarios that were used in the current biennial requalification cycle, administered to multiple operators. These observations allowed the inspectors to assess the licensee's effectiveness in conducting the operating test to ensure operator mastery of the training program content. The inspectors observed one remedial scenario which was administered to operators who had failed the operating test in a previous week. The inspectors reviewed medical records of 11 licensed operators for conformance to license conditions and the licensee's system for tracking qualifications and records of license reactivation for two operators. The inspectors also interviewed three licensee operations personnel, consisting of two senior operators and one operator, to determine the effectiveness of the interface between training and operations.

The results of these examinations were reviewed to determine the effectiveness of the licensee's appraisal of operator performance and to determine if feedback of performance analyses into the requalification training program was being accomplished. The inspectors interviewed members of the training department and reviewed minutes of curriculum review committee meetings to assess the responsiveness of the licensed operator requalification program to incorporate the lessons learned from both plant and industry events. Examination results were also assessed to determine if they were consistent with the guidance contained in NUREG 1021, "Operator Licensing Examination Standards for Power Reactors", Revision 9, Supplement 1, and NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process."

In addition to the above, the inspectors reviewed examination security measures, simulator fidelity, existing logs of simulator deficiencies, and Problem Identification and Resolution records related to training. The inspectors conducted a detailed review for quality of two full weeks of operating tests and two full written exams.

On May 31, 2013, the licensee informed the lead inspector of the results of the written examinations and operating tests for the Licensed Operator Requalification Program. The inspectors compared these results to the Appendix I, "Licensed Operator Requalification Significance Determination Process," values and determined that there were no findings based on these results and because the individuals that failed portions of their exams and/or operating tests were remediated, retested, and passed their retake exams prior to returning to shift. At the time of this report, one operator who failed the written exam had not yet taken a remedial exam, and three other operators had not yet taken their initial biennial requalification exams. These four operators have had their qualifications revoked until they take and pass their exams; the facility has agreed to follow up with the NRC when this is completed.

The inspectors completed one inspection sample of the biennial licensed operator requalification program.

b. Findings

One licensee-identified Green non-cited violation was evaluated during this inspection. It is documented in Section 4OA7 of this report. No additional findings were identified.

**1R12 Maintenance Effectiveness (71111.12)**

a. Inspection Scope

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

- April 9, 2013, Unit 1, Battery 11 low voltage. Notification 50555151
- May 2, 2013, Unit 1, Potential plant process control system channel interaction. Notifications 50560207, 50538719, and 50559100
- May 23, 2013, Units 1 and 2, Containment isolation check valves for radiation monitor sample lines failed to seat due to carbon dust buildup, Notification 50557853
- May 23, 2013, Units 1 and 2, Failure to maintain backup nitrogen pressure for pressurizer power operated relief valve actuators, Notification 50558834

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 monitoring
- Charging unavailability for performance monitoring
- 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 four 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:

- April 17, 2013, Unit 1, Risk assessment for battery 1-1 cell 35 jumper
- April 22, 2013, Unit 1, Planned maintenance of emergency diesel generator 1-1 and 4kV vital bus H undervoltage relay testing
- June 18, 2013, Unit 1, Substitute T-Hot temperature element for remote shutdown panel
- June 27, 2013, Unit 1, Crack on weld joint RHR-1-RV-8708

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 four 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:

- April 9, 2013, Unit 1, Notification 50555151, Battery 11 cell 35 low voltage
- April 15, 2013, Unit 2, Notification 50555427, Containment fan cooler unit operability following discovery of failed struts on the coupling for anti-reverse rotation devices
- May 2, 2013, Unit 1, Notification 50560207, Potential plant process control system channel interaction
- May 3, 2013, Unit 1 and 2, Notification 50560387, Diesel fuel oil transfer flow out of tolerance
- May 24, 2013, Unit 2, Notification 50540250, Past operability assessment of load center SD21 as-found anchorage condition
- June 12, 2013, Units 1 and 2, Notification 50568783, Non-seismically qualified motor operated valve declutch lever
- June 23, 2013, Units 1 and 2, Notification 50570301, Loss of 230kV start-up power due to offsite grid disturbance



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 Update 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 seven operability evaluations inspection samples as defined in Inspection Procedure 71111.15-05.

b. Findings

No findings were identified.

**1R18 Plant Modifications (71111.18)**

a. Inspection Scope

To verify that the safety functions of important safety systems were not degraded, the inspectors reviewed the temporary modification identified as 60058607-0020, Unit 1, Substitute TE-401C for TE-413A, reactor coolant system T-Hot indication.

The inspectors reviewed the temporary modification and the associated safety evaluation screening against the system design bases documentation, including the Final Safety Analysis Report Update and the technical specifications, and verified that the modification did not adversely affect the system operability/availability. The inspectors also verified that the installation and restoration were consistent with the modification documents and that configuration control was adequate. Additionally, the inspectors verified that the temporary modification was identified on control room drawings, appropriate tags were placed on the affected equipment, and licensee personnel evaluated the combined effects on mitigating systems and the integrity of radiological barriers.

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

b. Findings

No findings were identified.

## 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:

- April 17, 2013, Unit 1, post-maintenance testing of battery 11 following cell 35 jumpering, Work Order 60056824
- April 29, 2013, Unit 1, post-maintenance testing of 4kV vital bus G undervoltage relays, Work Order 64078484
- April 30, 2013, Unit 1, post-maintenance testing of emergency diesel generator 1-2, Work Orders 64070067, 64049310, and 60052291
- May 2, 2013, Unit 2, post-maintenance testing of control room ventilation system charcoal filter replacement, Work Order 64038035
- May 3, 2013, Units 1 and 2, post-maintenance testing of diesel fuel oil transfer system, Work Order 64089908
- June 24, 2013, Unit 1, post-maintenance testing of reactor coolant system T-Hot indication. Work Order 60058608

The inspectors selected these activities based upon the structure, system, or component's ability to affect risk. The inspectors evaluated these activities for the following (as applicable):

- 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.

**1R20 Refueling and Other Outage Activities (71111.20)**

a. Inspection Scope

The inspectors reviewed the outage safety plan and contingency plans for the Unit 1 forced outage, conducted June 26, 2013, through the end of the inspection period, to confirm that licensee personnel had appropriately considered risk, industry experience, and previous site-specific problems in developing and implementing a plan that assured maintenance of defense in depth. During the forced outage, the inspectors observed portions of the shutdown and cooldown processes and monitored licensee controls over the outage activities listed below.

- Configuration management, including maintenance of defense in depth, is commensurate with the outage safety plan for key safety functions and compliance with the applicable technical specifications when taking equipment out of service.
- Clearance activities, including confirmation that tags were properly hung and equipment appropriately configured to safely support the work or testing.
- Status and configuration of electrical systems to ensure that technical specifications and outage safety-plan requirements were met, and controls over switchyard activities.
- Monitoring of decay heat removal processes, systems, and components.
- Controls over activities that could affect reactivity.
- Licensee identification and resolution of problems related to forced outage activities.

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

These activities constitute completion of one unplanned outage inspection sample as defined in Inspection Procedure 71111.20-05.

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 ASME 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.

- April 5, 2013, Unit 1, 24-hour loaded run of emergency diesel generator 1-2

- April 26, 2013, Unit 1, 24-hour loaded run of emergency diesel generator 1-1
- April 29, 2013, Unit 1, 4kV vital bus G undervoltage relay testing
- May 2, 2013, Unit 2, Control room ventilation system charcoal filter halide penetration test
- May 3, Units 1 and 2, Diesel fuel oil transfer system
- June 6, 2013, Unit 1, Reactor coolant system leakage detection
- June 7, 2013, Unit 1, Comprehensive test of auxiliary saltwater pump 1-1
- June 12, 2013, Unit 1, Main turbine stop valve in-service testing

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

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

b. Findings

No findings were identified.

**Cornerstone: Emergency Preparedness**

**1EP6 Drill Evaluation (71114.06)**

a. Inspection Scope

The inspectors evaluated the conduct of a routine licensee emergency drill on June 5, 2013, to identify any weaknesses and deficiencies in classification, notification, and protective action recommendation development activities. The inspectors observed emergency response operations in the Control Room simulator, Incident Command Post, Alternate Operations Support Center, Alternate Technical Support Center, and Emergency Operations Facility 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.

**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 first quarter 2013 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 Safety System Functional Failures (MS05)

a. Inspection Scope

The inspectors sampled licensee submittals for the safety system functional failures performance indicator for Units 1 and 2 for the period from the first quarter 2012 through the first quarter 2013. 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, and NUREG-1022, "Event Reporting Guidelines 10 CFR 50.72 and 50.73." The inspectors reviewed the licensee's operator narrative logs, operability assessments, maintenance rule records, maintenance work orders, issue reports, event reports, and NRC integrated inspection reports for the period of January 2012 through March 2013, to validate the accuracy of the submittals. 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 safety system functional failure samples as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

.3 Mitigating Systems Performance Index - Emergency ac Power System (MS06)

a. Inspection Scope

The inspectors sampled licensee submittals for the mitigating systems performance index - emergency ac power system performance indicator for Units 1 and 2 for the period from the first quarter 2012 through the first quarter 2013. 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, mitigating systems performance index derivation reports, issue reports, event reports, and NRC integrated inspection reports for the period of January 2012 through March 2013, 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 - emergency ac power system samples as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

.4 Mitigating Systems Performance Index - High Pressure Injection Systems (MS07)

a. Inspection Scope

The inspectors sampled licensee submittals for the mitigating systems performance index - high pressure injection systems performance indicator for Units 1 and 2 for the period from the first quarter 2012 through the first quarter 2013. 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 January 2012 through March 2013, 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 - high pressure injection system samples as defined in Inspection Procedure 71151-05.

b. Findings

No findings were identified.

**40A2 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 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a review of the licensee's corrective action program and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors focused their review on repetitive equipment issues, but also considered the results of daily corrective action item screening discussed in Section 4OA2.2, above, licensee trending efforts, and licensee human performance results. The inspectors nominally considered the 6-month period of January 2013 through June 2013 although some examples expanded beyond those dates where the scope of the trend warranted.

The inspectors also included issues documented outside the normal corrective action program in major equipment problem lists, repetitive and/or rework maintenance lists, departmental problem/challenges lists, system health reports, quality assurance audit/surveillance reports, self-assessment reports, and Maintenance Rule assessments. The inspectors compared and contrasted their results with the results contained in the licensee's corrective action program trending reports. Corrective actions associated with a sample of the issues identified in the licensee's trending reports were reviewed for adequacy.

These activities constitute completion of one single semi-annual trend inspection sample as defined in Inspection Procedure 71152-05.

b. Findings

No findings were identified.

**4OA3 Follow-up of Events and Notices of Enforcement Discretion (71153)**

.1 (Closed) Licensee Event Report (LER) 05000275; 05000323/2011-007-01 and -02: Inadequate Control Room Envelope Testing Due to Inadequately-Documented In-leakage Test Data

In September 2011, operators declared the control room envelope inoperable due to discovery of inadequately documented control room envelope in-leakage test data. The licensee implemented compensatory measures to maintain operator dose less than the

regulatory limit in the event of an accident, and subsequently performed new in-leakage tests. The inspectors dispositioned the inadequately documented in-leakage test data as a Green finding and Severity Level III violation in Section 4OA5 of NRC Integrated Inspection Report 05000275; 05000323/2012002.

Revision 1 of the Licensee Event Report provided supplemental information pertaining to the results and analysis of the new in-leakage tests performed in November 2011. The test results demonstrated excessive in-leakage into the control room envelope and the licensee continued to implement compensatory measures, and also took action to begin restoring the control room envelope to the licensing basis condition. The inspectors dispositioned the nonconforming in-leakage as a Green noncited violation in Section 1R15.1 of NRC Integrated Inspection Report 05000275; 05000323/2011005.

Revision 2 of the Licensee Event Report provided supplemental information detailing the licensee's actions following receipt of the NRC's Task Interface Agreement 2012-08. The Task Interface Agreement clarified the compensatory measures acceptable to the NRC that would allow declaration of operability following previous in-leakage test failures. The licensee performed physical modifications of the control room ventilation system in December 2012, and then re-performed satisfactory in-leakage tests. The inspectors dispositioned the inadequate operability determination as a Green non-cited violation in Section 1R15.2 of NRC Integrated Inspection Report 05000275; 05000323/2012005. No additional deficiencies were identified during the review of these Licensee Event Reports supplemental revisions.

These Licensee Event Reports are closed.

.2 (Closed) LER 05000275; 05000323/2011-008-00: Control Room Ventilation System Design Vulnerability

In November 2011, operators determined the control room ventilation system had a design vulnerability in which a portion of system airflow could bypass the installed filter in the event no control room ventilation system booster fan was operating. Without a booster fan operating, a portion of system airflow could go backwards through an equalizing line, which bypassed the filter, and was therefore unfiltered in-leakage.

Each train of control room ventilation has two booster fans, and the redundant fan could be started in the event that one booster fan fails. While operators would take actions per their emergency operating procedures to rectify the condition, it is estimated that it could take as long as 30 minutes to identify the problem and reestablish booster fan flow to ensure all system air was flowing in the correct direction through the filter. The 30 minutes of unfiltered air supply was not previously included in the calculated dose analysis of record. The licensee implemented compensatory measures to maintain operator dose less than the regulatory limit in the event of an accident, and subsequently modified the ventilation system to include dampers that prevent the airflow from bypassing the filters in the event that no booster fan is operating.

The inspectors previously dispositioned the nonconforming in-leakage as a Green non-cited violation in Section 1R15.1 of NRC Integrated Inspection Report 05000275; 05000323/2011005. No additional deficiencies were identified during the review of these Licensee Event Reports supplemental revisions.

This Licensee Event Report is closed.

.3 (Closed) LER 05000323/2012-002-00 and -01: Coupling Capacitor Voltage Transformer Bushing Failure Causes Reactor Trip

On October 11, 2012, an electrical fault on the 500kV coupling capacitor voltage transformer in the main transformer bank caused an unplanned reactor trip. Shortly after the reactor trip, an unintended restart of an Auxiliary Feedwater Pump occurred. The inspectors reviewed the Licensee Event Report, the circumstances surrounding the failure of the 500kV coupling capacitor voltage transformer bushing, the adequacy of operator response to the reactor trip, and the circumstances leading to the unintended feedwater pump restart.

The inspectors dispositioned the failure of the coupling capacitor voltage transformer bushing as a self-revealing finding in Section 1R18 of NRC Integrated Inspection Report 05000323/2013002. The inspectors dispositioned the unintended restart of the Auxiliary Feedwater Pump as a self-revealing non-cited violation in Section 1R18.1 of NRC Integrated Inspection Report 05000323/2012005. No additional deficiencies were identified during the review of this Licensee Event Report.

This Licensee Event Report is closed.

.4 (Closed) LER 05000275/2012-004-00: Mode Transition with Turbine-Driven Auxiliary Feedwater Pump 1-1 Inoperable

On June 13, 2012, at the conclusion of the 17th Refueling Outage for Unit 1, after entering Mode 3, the steam turbine-driven auxiliary feedwater pump 1-1 failed its routine and post-maintenance surveillance testing when the pump speed was higher than the acceptable limit and could not be lowered. Plant operators declared turbine-driven auxiliary feedwater pump 1-1 inoperable as required by Technical Specification 3.7.5. The licensee reported that during the outage, maintenance workers had rebuilt the turbine-driven auxiliary feedwater pump governor valve FCV-15 and replaced the valve stem; however, due to inadequately detailed work instructions, the jam nuts were installed such that the valve could not be fully closed. After repair and reassembly of FCV-15, plant operators successfully completed surveillance testing for turbine-driven auxiliary feedwater pump 1-1. On June 14, 2012, operators declared the auxiliary feedwater pump 1-train operable within the technical specification time limit imposed.

The mode transition with turbine-driven auxiliary feedwater pump 1-1 inoperable was a licensee identified violation documented in Section 4OA7 of this report. No additional deficiencies were identified during the review of this Licensee Event Report.

This Licensee Event Report is closed.

- .5 (Closed) LER 05000275; 05000323/2013-001-00 and -01: Noncompliance with TS 3.4.12, "Low Temperature Overpressure Protection System" due to Human Error

On January 3, 2013, the licensee determined that the Limiting Condition for Operation of Technical Specification (TS) 3.4.12, low temperature overpressure protection system, was not met during Unit 1 and Unit 2 refueling outages over the past three years. Specifically, when Technical Specification 3.4.12 was applicable, the units operated with more than one centrifugal charging pump (CCP) capable of injecting into the reactor coolant system when the plant was at low temperature. Following a review of industry operating experience, Diablo Canyon Power Plant staff concluded that it had not complied with TS 3.4.12 since it had replaced the positive displacement pump with a centrifugal charging pump in Unit 1 (2005) and in Unit 2 (2007). Immediate corrective actions in response to this event included revising the affected procedures to ensure compliance with TS 3.4.12.

The apparent cause for this event includes a deficiency in Diablo Canyon Power Plant's 10 CFR 50.59 procedure and human error. The procedure did not provide guidance regarding proposed design changes that may appear to maintain the original intent or a requirement but create new literal compliance issues. The human error occurred when Diablo Canyon Power Plant staff interpreted the operability requirements outlined in TS 3.4.12 as being equivalent with respect to the positive displacement pump to centrifugal charging pump design change. Corrective actions included revising the associated 10 CFR 50.59 procedure, revising the Current Licensing Basis Determination Procedure, and providing a lessons-learned discussion to the staff.

The licensee determined that plant procedures had contained adequate administrative controls to have prevented using more than one centrifugal charging pump, ensuring that Diablo Canyon Power Plant operated within the limits of the low temperature overpressure protection analysis, and that the pressure and temperature limits of 10 CFR Part 50, Appendix G, would not have been exceeded. Nuclear or radiological safety was not affected. This event had no impact to safety of the public or station personnel. This event did not impact the reliability of plant operation or production capacity.

The inspectors dispositioned the failure to comply with TS 3.4.12 as a licensee identified violation in Section 4OA7 of this report. No additional deficiencies were identified during the review of this Licensee Event Report.

This Licensee Event Report is closed.

- .6 (Closed) LER 05000275/2012-007-00: Inadequately Compensated Non-Conformances in the Fire Protection Program

This Licensee Event Report is closed. This report will be reviewed and tracked under the supplemental report issued in LER 05000275/2012-007-01.

- .7 (Closed) LER 05000275, 05000323/2012-005-00: Unanalyzed Condition due to Nonconservative Change in Atmospheric Dispersion Factor

This Licensee Event Report is closed. This report will be reviewed and tracked under the supplemental report issued in LER 05000275, 05000323/2012-005-01.

#### **40A5 Other Activities**

- .1 (Closed) Violation 05000275; 05000323/2012002-02: Incomplete and Inaccurate Information Provided to the NRC in Response to Generic Letter 2003-01, "Control Room Habitability." (EA 2012-075)

The inspectors reviewed information submitted by the licensee in response to Notice of Violation EA-2012-075, Incomplete and Inaccurate Information Provided to the NRC in Response to Generic Letter 2003-01, "Control Room Habitability," and completed a review of the circumstances, causes, and corrective actions related to incorrect information reported to the NRC in 2005 following control room envelope trace gas testing. The inspectors determined that the licensee's apparent cause analysis and corrective actions were adequate. This violation is closed.

- .2 (Closed) NRC Temporary Instruction (TI) 2515/187, "Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns"

a. Inspection Scope

During this inspection period, the inspectors verified that the following licensee's walkdown packages contained the elements as specified in NEI 12-07 Walkdown Guidance document:

- 115' Radiological Controls Area Bench
- East Side Drainage

With these inspection activities, in addition to those previously documented in Inspection Reports 05000275/2012005 and 05000323/2012005, the inspectors completed activities associated with TI 2515/187.

b. Findings

No NRC-identified or self-revealing findings were identified.

- .3 (Closed) NRC TI 2515/188, "Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdowns"

a. Inspection Scope

The inspectors accompanied the licensee on their seismic walkdown of April 16, 2013, in the emergency diesel generator 1-1 radiator room, and verified

that the licensee confirmed that the following seismic features associated with emergency diesel generator 1-1 jacket water radiator and anchorage were free of potential adverse seismic conditions:

- Anchorage was free of bent, broken, missing or loose hardware
- Anchorage was free of corrosion that is more than mild surface oxidation
- Anchorage was free of visible cracks in the concrete near the anchors
- Anchorage configuration was consistent with plant documentation.
- Structures, systems, and components will not be damaged from impact by nearby equipment or structures.
- Overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are secure and not likely to collapse onto the equipment.
- Attached lines have adequate flexibility to avoid damage.
- The area appears to be free of potentially adverse seismic interactions that could cause flooding or spray in the area.
- The area appears to be free of potentially adverse seismic interactions that could cause a fire in the area.
- The area appears to be free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding).

Observations made during the walkdown that could not be determined to be acceptable were entered into the licensee's corrective action program for evaluation.

The inspectors independently performed a walkdown on August 29, 2012, and verified that the intake building, auxiliary salt water pump 1-1, and pump vault were free of potential adverse seismic conditions:

- Anchorage was free of bent, broken, missing or loose hardware
- Anchorage was free of corrosion that is more than mild surface oxidation
- Anchorage was free of visible cracks in the concrete near the anchors
- Anchorage configuration was consistent with plant documentation.
- Structures, systems, and components will not be damaged from impact by nearby equipment or structures.

- Overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls are secure and not likely to collapse onto the equipment.
- Attached lines have adequate flexibility to avoid damage.
- The area appears to be free of potentially adverse seismic interactions that could cause flooding or spray in the area.
- The area appears to be free of potentially adverse seismic interactions that could cause a fire in the area.
- The area appears to be free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding).

With these inspection activities, in addition to those previously documented in Inspection Reports 05000275/2012005 and 05000323/2012005, the inspectors completed activities associated with TI 2515/188.

b. Findings

The inspectors documented a licensee-identified violation in Section 40A7 of this report.

#### **40A6 Meetings, Including Exit**

##### Exit Meeting Summary

The inspectors debriefed Mr. B. Allen, Site Vice President, and other members of the licensee's staff of the results of the licensed operator requalification program inspection on May 23, 2013, and telephonically exited with Mr. J. Becerra, Simulator and Exam Support Supervisor, and other staff members on June 10, 2013. The licensee representatives acknowledged the findings presented. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On July 8, 2013, the resident inspectors presented the resident inspection results to Mr. E. Halpin, Senior Vice President and 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.

#### **40A7 Licensee-Identified Violations**

The following violations of very low safety significance (Green) were identified by the licensee and are violations of NRC requirements which meet the criteria of the NRC Enforcement Policy for being dispositioned as Non-Cited Violations.

- .1 The inspectors reviewed a licensee-identified Green non-cited violation of Title 10 CFR Part 50, Appendix B, Criterion III, "Design Control," for failure to correctly

translate the design basis requirement for welded anchorage configurations into specifications and drawings for electrical load centers. Specifically, in 1977, seismic design qualification testing established the 125-volt DC load center anchor design, but the licensee failed to update Drawing 050053, Sheet 11, "Anchorage Requirements for Design Class I Electrical Equipment," Revision 12, to reflect the tested configuration. As a result, Load Center SD21 was reinstalled in the plant after the testing with an anchorage configuration that was less robust than the tested configuration, which degraded the load center's ability to withstand a seismic event. The performance deficiency was more than minor because it was associated with the design control attribute of the mitigating system cornerstone and adversely affected the cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Specifically, the missing welds on the load center anchorage reduced the capability of the cabinet to withstand shaking from a seismic event compared to the seismic verification test configuration. This violation was of very low safety significance (Green) because, while the violation 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 licensee entered the issue into the corrective action program as Notification 50540606 and has corrected the condition by adding additional welds to the base of the load center consistent with the configuration used for design qualification testing.

- .2 Title 10 of the Code of Federal Regulations, Part 55.49, "Integrity of examinations and tests," requires that facility licensees shall not engage in any activity that compromises the integrity of an examination. The integrity of a test or examination is considered compromised if any activity, regardless of intent, affected, or, but for detection, would have affected the equitable and consistent administration of the test or examination. Contrary to the above, on April 30, 2013, a compromise of an annual operating test scenario occurred. An operator was performing a job performance measure behind the simulator while another group was simultaneously performing a dynamic simulator scenario. The group in the simulator made an announcement on the Public Address system which was heard by the operator performing the job performance measure. This divulged the nature of the major casualty in the scenario, which the operator was scheduled to be evaluated on later in the day. The licensee recognized the compromise and substituted a different scenario for this operator as a result, and documented the deficiency in Notification 50560089. The compromise of an operating test scenario is a violation. The violation is more than minor because it adversely impacted the human performance attribute of the mitigating systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Additionally, if left uncorrected, the violation could have become more significant in that allowing a licensed operator to return to the control room without a valid demonstration of appropriate knowledge on the annual operating test could be a precursor to a more significant event if latent knowledge deficiencies went unidentified. Using NRC Manual Chapter 0609, "Significance Determination Process," Phase 1, worksheets, and the corresponding Appendix I, "Licensed Operator Requalification Significance Determination Process," the finding was determined to have very low safety significance because, although a compromise of the integrity of an operating test scenario occurred, the compromised scenario was replaced before it was



administered and therefore did not affect the equitable and consistent administration of the test.

3. The licensee identified a violation of Technical Specification 3.0.4 involving a transition from Mode 4 to Mode 3 with the turbine-driven auxiliary feedwater pump 1-1 inoperable, which was discovered when it failed the post-maintenance testing. The identified violation was entered into the corrective action program as Notification 505491007. The violation is more than minor because it is associated the mitigating systems cornerstone objective of ensuring the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. Using Manual Chapter 0609, Attachment A, "The Significance Determination Process (SDP) for Findings At-Power," the violation was determined to be of very low safety significance (Green) because the finding was not a design or qualification deficiency, did not result in the loss of operability or functionality of a single train for greater than the technical specification outage time, did not represent an actual loss of safety function, and was not potentially risk significant due to a seismic, flooding, or severe weather event.
4. The licensee identified a violation of Technical Specification 3.4.12 due to operating during periods the requirement was applicable during Unit 1 and 2 outages over the previous three years with more than one centrifugal charging pump capable of injecting into the reactor coolant system. The identified violation was entered into the corrective action program as Notifications 50531685 and 50545151. The violation is more than minor because it is associated with the human performance attribute of the Barrier Integrity Cornerstone and adversely affects the cornerstone objective to provide reasonable assurance that physical design barrier (reactor coolant system) protects the public from radionuclide releases caused by accidents or events. Using Manual Chapter 0609, Attachment A, "The Significance Determination Process (SDP) for Findings At-Power," the violation was determined to be of very low safety significance (Green) because the finding did not result in exceeding the reactor coolant system leak rate for a small loss-of-coolant accident, and did not affect other systems used to mitigate a loss-of-coolant accident resulting in a total loss of their function.

## SUPPLEMENTAL INFORMATION

### KEY POINTS OF CONTACT

#### Licensee Personnel

B. Allen, Site Vice President  
T. Baldwin, Manager, Regulatory Services  
A. Bates, Director, Engineering Services  
J. Becerra, Supervisor Simulator and Exam Support  
S. Brasfield, Maintenance Manager  
D. Burns, Operations Training Manager  
T. Cuddy, Senior Manager, Communications  
R. Fortier, Exam Developer  
M. Frauenheim, Manager, Performance Improvement  
P. Gerfas, Assistant Director, Station Director  
D. Gonzalez, Inservice Inspection Supervisor  
D. Gouveia, Manager, Operations  
E. Halpin, Chief Nuclear Officer  
R. Harvey, Manager, Outage Services  
J. Hinds, Director, Quality Verification  
T. King, Director, Nuclear Work Management  
W. Landreth, Regulatory Services  
J. MacIntyre, Director, Maintenance Services  
M. McCoy, NRC Interface, Regulatory Services  
J. Nimick, Director, Operations Services  
R. Simmons, Manager, Electrical Maintenance  
J. Summy, Senior Director, Engineering and Projects  
J. Welsch, Station Director  
R. West, Manager, ICE Systems  
M. Wright, Manager, Mechanical Systems Engineering

### LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

#### Opened and Closed

05000275; 05000323-003-01	NCV	Failure to Effectively Implement the Fire Protection Program ( <u>Section 1R05</u> )
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#### Closed

05000275; 05000323/1-2011- 007-01	LER	Inadequate Control Room Envelope Testing Due to Inadequately- Documented In-leakage Test Data (Section 4OA3.1)
05000275; 05000323/1-2011- 007-02	LER	Inadequate Control Room Envelope Testing Due to Inadequately- Documented In-leakage Test Data (Section 4OA3.1)

Closed

05000275; 05000323/1-2011- 008-00	LER	Control Room Ventilation System Design Vulnerability (Section 4OA3.2)
05000323/2-2012- 002-00	LER	Coupling Capacitor Voltage Transformer Bushing Failure Causes Reactor Trip (Section 4OA3.3)
05000323/2-2012- 002-01	LER	Coupling Capacitor Voltage Transformer Bushing Failure Causes Reactor Trip (Section 4OA3.3)
05000275/2012- 004-00	LER	Mode Transition with Turbine-Driven Auxiliary Feedwater Pump 1-1 Inoperable (Section 4OA3.4)
05000275; 05000323/2013- 001-00	LER	Noncompliance with TS 3.4.12, Low Temperature Overpressure Protection System due to Human Error (Section 4OA3.5)
05000275; 05000323/2013- 001-01	LER	Noncompliance with TS 3.4.12, "Low Temperature Overpressure Protection System" due to Human Error (Section 4OA3.5)
05000275/2012- 007-00	LER	Inadequately Compensated Non-Conformances in the Fire Protection Program (Section 4OA3.6)
05000275, 05000323/2012- 005-00	LER	Unanalyzed Condition due to Nonconservative Change in Atmospheric Dispersion Factor (Section 4OA3.7)
05000275; 05000323/2012002- 02	VIO	Incomplete and Inaccurate Information Provided to the NRC in Response to Generic Letter 2003-01, "Control Room Habitability." (Section 4OA5.1)
2515/187	TI	Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns (Section 4OA5.2)
2515/188	TI	Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdowns (Section 4OA5.3)

**LIST OF DOCUMENTS REVIEWED**

**Section 1R04: Equipment Alignment**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
OP O-36, Attachment 4	Active Protected Equipment List	6A
OP O-36, Attachment 5	SSC and Component List for U1	6A
MA1.DC11, Attachment 5	Risk Management Plan for Work Order 60056824 – Bypass Batt 11 cell #25	April 28, 2012
DCM S-23F	Control Room HVAC System	17

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
AD13.DC10	Battery Monitoring and Maintenance Program	1
OP S-9	125/250V DC System	23
OP D-1	Auxiliary Feedwater System	17

NOTIFICATIONS

50556879

**Section 1R05: Fire Protection**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
STP M-70C	Inspection of ECG Doors	24
STP M-39A1	U1 & 2, Routine Surveillance Test of Diesel Generator 1-1 (2-1) Room Carbon Dioxide Fire System Operation	15
DCM S-18	Fire Protection System	13B
OM8.ID4	Control of Flammable and Combustible Materials	20
OM8.ID1	Fire Loss Prevention	24
MA1.ID9	Compressed Gas Cylinders	4

DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
111906	Units 1 and 2 Fire Drawing, Sheets 1-32	October 5, 2011

NOTIFICATIONS

50512188	50512486	50512189	50311866	50561594
50377650	50537823	50510062	50511864	50511714
50561959	50568718	50524825	50559221	

MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
	Fire Drill Guide, "119' 4kV Bus F Room Fire – Unit 1"	December 26, 2012

## Section 1R11: Licensed Operator Requalification Program

### PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
OP1.ID4, Attachment 2	IPTE Pre-Job Brief Guidance for Battery 11 Cell 35 Jumper	April 27, 2011
MA1.DC11, Attachment 5	Risk Management Plan for Work Order 60056824 – Bypass Batt 11 cell #35	April 28, 2012
OP1.DC10	Conduct of Operations	37

### NOTIFICATIONS

50476094	50469701	50040446	50517527	50564202
50559769	50564794	50560089		

### MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION / DATE</u>
OP1.DC10	SRO License Reactivation, Attachment 15	October 25, 2011
TQ2.DC3	Licensed Operator Continuing Training Program	23
TQ1.DC28	Simulator Testing	1
TQ2.DC15	Licensed Operator Annual/Biennial Exam Development and Administration	2
TQ2.ID4	Training Program Implementation	30
Scenario E3ECA33-B	SGTR	20
Scenario ECA00-A	Loss of All AC	20
Scenario ES1213-A	LOCA	20
Scenario ECA1112-C	Loss of ECR/LOCA	19
Scenario ECA3132-C	SGTR & LOCA	14
Scenario FRP1B	Imminent PTS	17
JPM LJC-017	Verify Natural Circulation	26B
JPM LJC-020	Initiate Cooldown for an SGTR	16D
JPM LJC-30	Manually Isolate Phase A Components – Train B Failure	28A

MISCELLANEOUS

JPM LJC-32	Crosstie of Vital Bus G to H	19
JPM LJC-63	Establish Emergency Boration	25
JPM LJP-64	Operate the CFCUs at the Hot Shutdown Panel	27A
JPM LJC-86	Parallel Diesel Generator 12 to Bus	19C
JPM LJC-124	Respond to a Loss of Auxiliary Salt Water	13
JPM LJP-211A	CCW Alternate CST Makeup	1A
JPM LJP-138A	Manually Operate the Cardox System	2
Feedback Forms	DCPP Focused Observation Cards (sample)	Quarter 3, 2012
ANSI 3.5 Test Results	2012 Simulator Certification Tests (per TQ1.DC28)	
SCR Report	Active Simulator Change Requests	May 21, 2013
R11-12 Written Exam Package 2	R11-12 Written Exam Package 2	May 10, 2013
R11-12 Written Exam Package 5	R11-12 Written Exam Package 5	May 17, 2013
DCPP R127 Biennial Exam Results	DCPP R127 Biennial Exam Results	May 31, 2013

**Section 1R12: Maintenance Effectiveness**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
	Maintenance Rule Expert Panel Meeting #199 Minutes	May 23, 2013

NOTIFICATIONS

50540392	50397413	50540233	50415735	50558834
50555151	5056027	50533719	50559100	

**Section 1R13: Maintenance Risk Assessment and Emergent Work Controls**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
MA1.DC11	Assessment of Maintenance Risk	12

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OP1.ID4	Infrequently Performed Test or Evolution	
CF3.ID9	Independent Evaluation, Instrumentation and Controls	0

NOTIFICATIONS

50556673	50555151	5057031	50570623
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WORK ORDERS

64078200-0100	60056824
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MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
	Maintenance risk assessment for Work Week 1317, Unit 1	April 22, 2013
	Pre-Screened Risk Activity Plan for STP M-75G U1 4kV Bus G U/V Relay Testing	February 29, 2012

**Section 1R15: Operability Evaluations**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
TP TO-11002	DC Panel SD21 Replacement	4

DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
441240, Sheet 1	Single Line Meter and Relay Diagram 125V D.C. System	39
102021	Unit 1 Engine Fuel Oil System	60

NOTIFICATIONS

50555427	50555614	50555722	50555626	50555757
50555487	50555573	50555579	50555428	50555427
50555426	50538476	50540606	50548155	50555151
50560207	50570301	50568783		

## MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
DRN 0322-0023- LTR-01	DCPP Containment Fan Cooler Unit 2-5 Coupling Failure Report	March 28, 2013
	Emerging Issue Summary, Extent of Condition from SD-21: Seismic Monitoring	March 7, 2013
Short Form Assessment #130500010	Technical Assessment of the Emerging Issue Documented in SAPN 50540250	March 9, 2013
Calculation ES-016.1	125-volt DC Load Center No. SD 21 Past Operability Assessment of As-found Anchorage Condition	March 25, 2013
Short Form Assessment #130900009	Technical Assessment of Calculation ES-016.1 ("Load Center SD21 Past Operability Assessment")	April 22, 2013

### **Section 1R18: Plant Modifications**

#### DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
102007	Delta-T Protection Loop 1-1	97

#### WORK ORDERS

60058607-0020

### **Section 1R19: Post-Maintenance Testing**

#### PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
MP E-50.61	Basler Type BE1-27 Medium Inverse Undervoltage Relay Maintenance	5
MP E-50.33A	Westinghouse Type SSV-T One Unit Voltage Relay Maintenance	11
STP M-75G	4kv Vital Bus G Undervoltage Relay Calibration	1A
STP M-9A	Diesel Engine Generator Routine Surveillance Test	93
STP M-53	Control Room Ventilation System – DOP and Halide Penetration Tests	11
STP G-9	General HEPA Filter Bank Penetration Test	9
STP G-10	General Charcoal Filter Bank Penetration Test	8
STP G-11	Procedure for Obtaining Charcoal Filter Media for Laboratory Testing (Methyl Iodine)	18



PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
MP E-67.6	Station Battery Preventative Maintenance	12
STP P-DFO-02	Routine Surveillance Test of Diesel Fuel Oil Transfer Pump 0-2	8

DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
102021	Diesel Fuel Oil System	67

WORK ORDERS

64038035

**Section 1R20: Refueling and Other Outage Activities**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
OP O-36	Protected Equipment Postings, U2, Att. 9, 10, 11	6
OP L-0	Mode Transition Checklists	73

**Section 1R22: Surveillance Testing**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
STP M-9G	Diesel Generator 24-Hour Load Test and Hot Restart Test	52A
STP M-75G	4kv Vital Bus G Undervoltage Relay Calibration	1A
STP M-53	Control Room Ventilation System – DOP and Halide Penetration Tests	11
STP G-11	Procedure for Obtaining Charcoal Filter Media for Laboratory Testing (Methyl Iodine)	18
STP I-1B	Routine Daily Checks Required By Licenses	121
STP P-ASW-A11	Comprehensive Test of Auxiliary Saltwater Pump 1-1	7
STP P-DFO-02	Routine Surveillance Test of Diesel Fuel Oil Transfer Pump 0-2	8
STP M-21C	Main Turbine Stop Valve In-Service Testing	44

DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
102021	Diesel Fuel Oil System	67

NOTIFICATIONS

50558661	50559211	50509692
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MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
	Pre-Screened Risk Activity Plan for STP M-75G U1 4kV Bus G U/V Relay Testing	February 29, 2012
Order #42983	“Adsorber Cell Data Report” from vender NUCON International, Inc.	May 26, 2011

**Section 1EP6: Drill Evaluation**

MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
	Diablo Canyon Power Plant Emergency Planning Scenario Synopsis/Event Description	6/5/2013
	Drill Objectives for Charlie Full-Scope Drill Conducted 6/5/2013	6/5/2013
	Team Charlie Full-Scope Drill Post-Drill Critique	TBD

**Section 4OA3: Event Follow-Up**

NOTIFICATIONS

50540606	50560089	505491007	50531685	50545151
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**Section 4OA5: Other Activities**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
AWP E-016	Inspection Guide – Maintenance Rule & License Renewal – Structural Monitoring Programs - Civil	6

DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
4038875	Grading Modifications for Used Fuel Cask Transporter Path 115’ RCA Bench	1

DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
438040	Finished Grading Plan Plant Area	41
438042	Finished Grading Plan Plant Area	23
455937	Finish Grading Plan & Sections Solid Radwaste Storage Building	6
4015863	Typical Shotcrete Details	1

NOTIFICATIONS

50466123      50484832

MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
SAPN 50486281-14	Walkdown Record Form, RCA Bench	July 27, 2012
SAPN 50486281-19	Walkdown Record Form, East Side Drainage	July 30, 2012

**Section 40A7: Licensee-Identified Violations**

PROCEDURES

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
TP TO-11002	DC Panel SD21 Replacement	4

DRAWINGS

<u>NUMBER</u>	<u>TITLE</u>	<u>REVISION</u>
441240, Sheet 1	Single Line Meter and Relay Diagram 125V D.C. System	39

NOTIFICATIONS

50540606      50560089      505491007      50531685      50545151

MISCELLANEOUS

<u>NUMBER</u>	<u>TITLE</u>	<u>DATE</u>
	Emerging Issue Summary, Extent of Condition from SD-21: Seismic Monitoring	March 7, 2013
Short Form Assessment #130500010	Technical Assessment of the Emerging Issue Documented in SAPN 50540250	March 9, 2013

## NOTIFICATIONS

Calculation ES-016.1	125-volt DC Load Center No. SD 21 Past Operability Assessment of As-found Anchorage Condition	March 25, 2013
Short Form Assessment #130900009	Technical Assessment of Calculation ES-016.1 (“Load Center SD21 Past Operability Assessment”)	April 22, 2013

## **LIST OF ACRONYMS**

ADAMS	Agencywide Document Access and Management System
ANSI	American National Standards Institute
CFR	Code of Federal Regulations
DC	Direct current
IPTE	Infrequently Performed Test or Evolution
LER	Licensee Event Report
NCV	Non-cited Violation
NEI	Nuclear Energy Institute
NOV	Notice of Violation
NRC	Nuclear Regulatory Commission
PG&E	Pacific Gas and Electric
RCA	Radiological Controlled Area
SSC	Structures, Systems and Components