



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION IV
1600 EAST LAMAR BOULEVARD
ARLINGTON, TEXAS 76011-4511

October 30, 2019

Mr. James M. Welsch
Senior Vice President, Generation
and Chief Nuclear Officer
Pacific Gas & Electric Company
Diablo Canyon Power Plant
P.O. Box 56, Mail Code 104/6
Avila Beach, CA 93424

SUBJECT: DIABLO CANYON POWER PLANT, UNITS 1 AND 2 – INTEGRATED
INSPECTION REPORT 05000275/2019003 AND 05000323/2019003

Dear Mr. Welsch:

On September 30, 2019, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Diablo Canyon Power Plant, Units 1 and 2. On October 7, 2019, the NRC inspectors discussed the results of this inspection with Ms. Paula Gerfen, Site Vice President, and other members of your staff. The results of this inspection are documented in the enclosed report.

One finding of very low safety significance (Green) is documented in this report. This finding involved a violation of NRC requirements. We are treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

If you contest the violation or significance or severity of the violation documented in this inspection report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; the Director, Office of Enforcement; and the NRC Resident Inspector at 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 U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region IV; and the NRC Resident Inspector at Diablo Canyon Power Plant, Units 1 and 2.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Jeffrey E. Josey, Chief
Project Branch A
Division of Reactor Projects

Docket Nos. 05000275 and 05000323
License Nos. DPR-80 and DPR-82

Enclosure:
As stated

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INSPECTION REPORT 05000275/2019003 AND 05000323/2019003 –
October 30, 2019

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**U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report**

Docket Numbers: 05000275 and 05000323

License Numbers: DPR-80 and DPR-82

Report Numbers: 05000275/2019003 and 05000323/2019003

Enterprise Identifier: I-2019-003-0001

Licensee: Pacific Gas & Electric Company

Facility: Diablo Canyon Power Plant, Units 1 and 2

Location: Avila Beach, CA 93424

Inspection Dates: July 1, 2019 to September 30, 2019

Inspectors: A. Athar, Resident Inspector (Acting)
L. Carson, Senior Health Physicist
S. Hedger, Emergency Preparedness Inspector
G. Kolcum, Senior Resident Inspector
C. Newport, Senior Resident Inspector
J. Reynoso, Senior Resident Inspector (Acting)

Approved By: Jeffrey E. Josey, Chief
Project Branch A
Division of Reactor Projects

Enclosure

SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Diablo Canyon Power Plant, Units 1 and 2, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC's program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

List of Findings and Violations

Failure to Maintain Structural Fire Barrier in an Approved Design Configuration			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000323/2019003-01 Open/Closed	[H.7] - Documentation	71111.05Q
The inspectors identified a Green, non-cited violation of Operating License DPR-82, License Condition 2. C. (4), "Fire Protection," for the failure to control structural gap seal fire barrier configuration in accordance with the station's NRC-approved fire protection program.			

Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
URI	05000275,05000323/2018 008-01	Emergency Diesel Generator Mission Time for Operability Evaluations	71152	Closed

PLANT STATUS

Units 1 and 2 began the inspection period at full power. Unit 1 operated at or near full power for the remainder of the inspection period.

On September 22, 2019, Unit 2 was shut down for a planned refueling outage and remained in the refueling status for the remainder of the inspection period.

INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors performed plant status activities described in IMC 2515, Appendix D, "Plant Status," and conducted routine reviews using IP 71152, "Problem Identification and Resolution." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

REACTOR SAFETY

71111.01 - Adverse Weather Protection

Seasonal Extreme Weather Sample (IP Section 03.02) (1 Sample)

- (1) The inspectors evaluated readiness for seasonal extreme weather conditions prior to the onset of seasonal hot and extreme drought due to dry weather for the following systems:
 - Units 1 and 2, intake and cooling systems on July 31, 2019
 - Units 1 and 2, auxiliary saltwater systems on July 31, 2019

External Flooding Sample (IP Section 03.04) (1 Sample)

- (1) The inspectors evaluated readiness to cope with external flooding for the following areas:
 - Units 1 and 2, intake structure on August 2, 2019
 - Units 1 and 2, turbine building external doors on August 2, 2019

71111.04Q - Equipment Alignment

Partial Walkdown Sample (IP Section 03.01) (3 Samples)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains:

- (1) Unit 1, emergency diesel generator fuel oil and starting air system on July 2, 2019
- (2) Unit 1, motor-driven auxiliary feedwater pump 1-3 on September 19, 2019

- (3) Unit 2, reactor vessel refueling level indication system alignment on September 27, 2019

71111.05Q - Fire Protection

Quarterly Inspection (IP Section 03.01) (5 Samples)

The inspectors evaluated fire protection program implementation in the following selected areas:

- (1) Unit 1, H block 115 foot elevation on July 11, 2019
- (2) Unit 2, H block 115 foot elevation on July 12, 2019
- (3) Units 1 and 2, intake structure on August 29, 2019
- (4) Units 1 and 2, vital 4 kV switchgear rooms on September 6, 2019
- (5) Unit 1, motor-driven auxiliary feedwater pump room on September 19, 2019

71111.06 - Flood Protection Measures

Inspection Activities - Underground Cables (IP Section 02.02c.) (1 Sample)

The inspectors evaluated internal flooding mitigation protections in:

- (1) the diesel fuel oil underground vault 0-1 on August 14, 2019

71111.11Q - Licensed Operator Regualification Program and Licensed Operator Performance

Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (1 Sample)

- (1) The inspectors observed and evaluated licensed operator performance in the Control Room during the following activities:
 - Unit 1, full length control rod exercise annunciator alarms on July 3, 2019
 - Units 1 and 2, turnover and an operability challenge board in the control room on July 11, 2019
 - Unit 2, starting and loading of emergency diesel generator 2-1 on July 15, 2019
 - Unit 2, plant shutdown and planned reactor trip for refueling outage 2R21 on September 21, 2019

Licensed Operator Regualification Training/Examinations (IP Section 03.02) (1 Sample)

- (1) The inspectors observed and evaluated the Unit 2 crew of control room licensed operators during simulator training on September 10, 2019.

71111.12 - Maintenance Effectiveness

Routine Maintenance Effectiveness Inspection (IP Section 02.01) (2 Samples)

The inspectors evaluated the effectiveness of routine maintenance activities associated with the following equipment and/or safety significant functions:

- (1) Units 1 and 2, fire water system on July 17, 2019
- (2) Units 1 and 2, vital batteries on September 3, 2019

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (5 Samples)

The inspectors evaluated the risk assessments for the following emergent work activities:

- (1) Unit 1, turbine-driven auxiliary feedwater pump 1-1 out of service for maintenance on July 2, 2019
- (2) Units 1 and 2, delayed surveillance test of cable spreading room fire suppression system on July 18, 2019
- (3) Unit 1, startup transformer 1-1 insulator cleaning and maintenance on July 24-25, 2019
- (4) Unit 2, emergency diesel generator 2-2 turbo air receiver leak on July 29, 2019
- (5) Unit 1, elevated outage risk during drain down for reactor head removal on September 25, 2019

71111.15 - Operability Determinations and Functionality Assessments

Operability Determination or Functionality Assessment (IP Section 02.02) (6 Samples)

The inspectors evaluated the following operability determinations and functionality assessments:

- (1) Unit 2, safety-related atmosphere dump valve PCV 22 backup air leak on July 1, 2019
- (2) Units 1 and 2, offsite power and transmission operability determination during threat of wild fire on July 29, 2019
- (3) Unit 2, emergency diesel generator turbo air receiver leak on July 29, 2019
- (4) Units 1 and 2, loss of Emergency Response Data System on August 7, 2019
- (5) Units 1 and 2, diesel fuel oil transfer pump vault fuel oil leak on August 12, 2019
- (6) Unit 2, residual heat removal pump 2-1 recirculation valve Agastat relay failure on September 4, 2019

71111.18 - Plant Modifications

Severe Accident Management Guidelines (SAMG) Update (IP Section 03.03) (1 Sample)

The inspectors evaluated the following temporary or permanent modifications:

- (1) Validation of severe accident mitigation guidelines integration into emergency response program on August 15, 2019

71111.19 - Post-Maintenance Testing

Post Maintenance Test Sample (IP Section 03.01) (5 Samples)

The inspectors evaluated the following post maintenance tests:

- (1) Unit 1, residual heat removal pump 1-1 preventative maintenance on July 1, 2019
- (2) Unit 2, containment air radiation monitors RM-11 and 12, preventative maintenance and pump replacement on July 16, 2019
- (3) Units 1 and 2, diesel fuel oil transfer pump 0-1, differential pressure switch PS-595 replacement on August 15, 2019
- (4) Unit 2, auxiliary building exhaust fan E-1 on August 19, 2019
- (5) Unit 2, auxiliary building ventilation system after emergent replacement of charcoal beds on September 18, 2019

71111.20 - Refueling and Other Outage Activities

Refueling/Other Outage Sample (IP Section 03.01) (1 Partial)

- (1) (Partial)
The inspectors evaluated the Unit 2 refueling outage 2R21 activities beginning September 21, 2019, through the end of the quarter. Specifically, the inspectors completed Inspection Procedure 71111.20, Sections 03.01.a through b, and will continue to inspect the remaining elements of the procedure as the outage continues in the subsequent quarter.

71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

Surveillance Tests (other) (IP Section 03.01) (3 Samples)

- (1) Unit 1, 12 kV bus F underfrequency and undervoltage time response test, per Procedure STP I-9, on July 9, 2019
- (2) Unit 2, 4 kV bus F vital bus auto-transfer test, per STP M-13F, on September 23, 2019
- (3) Unit 2, integrated safeguard testing, per STP M-15, on September 25, 2019

Inservice Testing (IP Section 03.01) (1 Sample)

- (1) Unit 1, train B residual heat removal recirculation valve FCV-641B in-service test, per Procedure STP V-3M1B, on September 5, 2019

FLEX Testing (IP Section 03.02) (1 Sample)

- (1) Units 1 and 2, annual FLEX equipment surveillance testing on August 13, 2019

71114.04 - Emergency Action Level and Emergency Plan Changes

Inspection Review (IP Section 02.01-02.03) (1 Sample)

- (1) The licensee submitted a summary of emergency plan changes on April 4, 2019. Changes involved the emergency plan's table of contents and Appendix F (Revision 4.07). The inspectors conducted an in-office review of the changes from July 23 to July 25, 2019. This evaluation does not constitute NRC approval.

71114.06 - Drill Evaluation

Select Emergency Preparedness Drills and/or Training for Observation (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated an emergency preparedness drill on July 24, 2019.

Drill/Training Evolution Observation (IP Section 03.02) (1 Sample)

The inspectors evaluated:

- (1) The inspectors evaluated a simulator-based drill of a loss of AC vital buses following a seismic event on August 20, 2019.

RADIATION SAFETY

71124.02 - Occupational ALARA Planning and Controls

Radiological Work Planning (IP Section 02.01) (1 Sample)

The inspectors evaluated the licensee's radiological work planning.

- (1) The inspectors reviewed the following activities:
 - RWP 2019-1020: 1RF21 Reactor Disassembly & Reassembly
 - RWP 2019-1023: 1RF21 Fuel Movement/Underwater Work
 - RWP 2019-1026: 1RF21 Lower Cavity & Transfer Canal

Verification of Dose Estimates and Exposure Tracking Systems (IP Section 02.02) (1 Sample)

The inspectors evaluated dose estimates and exposure tracking.

- (1) The inspectors reviewed the following as low as reasonably achievable planning documents:
 - RWP 2019-1020: 1RF21 Reactor Disassembly & Reassembly
 - RWP 2019-1023: 1RF21 Fuel Movement/Underwater Work
 - RWP 2019-1026: 1RF21 Lower Cavity & Transfer Canal

Additionally, the inspectors reviewed the following radiological outcome evaluations:

- RWP 2019-1020: 1RF21 Reactor Disassembly & Reassembly
- RWP 2019-1023: 1RF21 Fuel Movement/Underwater Work

- RWP 2019-1026: 1RF21 Lower Cavity & Transfer Canal

71124.04 - Occupational Dose Assessment

Source Term Categorization (IP Section 02.01) (1 Sample)

- (1) The inspectors evaluated the licensee's characterization of the source term and use of scaling factors for the use of hard-to-detect radionuclide activity.

External Dosimetry (IP Section 02.02) (1 Sample)

- (1) The inspectors evaluated the external dosimetry program implementation.

Internal Dosimetry (IP Section 02.03) (1 Sample)

The inspectors evaluated the internal dosimetry program implementation.

- (1) The inspectors reviewed the following:

Whole Body Counts

- 12/7/17, 29.8 nCi Xe-133
- 12/7/17, 7109 nCi Tc-99M
- 4/10/18, 34.51 nCi Co-60

In-Vitro Internal Monitoring

- There were no in-vitro dose assessments available during this inspection period.

Dose Assessments Performed Using Air Sampling and Derived Air Concentration-Hour Monitoring

- No dose assessments were performed or available using air sampling and derived air concentration-hour monitoring during this inspection period.

Special Dosimetric Situations (IP Section 02.04) (1 Sample)

The inspectors evaluated the following special dosimetric situation:

- (1) The inspector evaluated five declared pregnant workers' records for this inspection period from March 2017 to February 2019.

Licensee's implementation of requirements to manage radiation protection of declared pregnant workers, application of NRC-approved external dosimetry methods (i.e., EDEX), shallow dose equivalent and neutron dose assessments were also evaluated by the inspector.

OTHER ACTIVITIES – BASELINE

71151 - Performance Indicator Verification

The inspectors verified licensee performance indicators submittals listed below:

MS08: Heat Removal Systems (IP Section 02.07) (2 Samples)

- (1) Unit 1 (07/01/2018–06/30/2019)
- (2) Unit 2 (07/01/2018–06/30/2019)

MS09: Residual Heat Removal Systems (IP Section 02.08) (2 Samples)

- (1) Unit 1 (07/01/2018–06/30/2019)
- (2) Unit 2 (07/01/2018–06/30/2019)

MS10: Cooling Water Support Systems (IP Section 02.09) (2 Samples)

- (1) Unit 1 (07/01/2018–06/30/2019)
- (2) Unit 2 (07/01/2018–06/30/2019)

71152 - Problem Identification and Resolution

Annual Follow-up of Selected Issues (IP Section 02.03) (3 Samples)

The inspectors reviewed the licensee's implementation of its corrective action program related to the following issues:

- (1) evaluation and corrective actions related to Unit 2, emergency diesel generator scaffolding in support of governor replacement on August 30, 2019
- (2) evaluation of battery sizing calculations for station blackout on September 10, 2019
- (3) evaluation and corrective actions related to Units 1 and 2, high energy line break program compliance with equipment control guidelines (ECG) and surveillance requirements on September 30, 2019

OTHER ACTIVITIES – TEMPORARY INSTRUCTION, INFREQUENT, AND ABNORMAL

Evaluation of Diablo Canyon Power Plant Safety Condition in Light of Financial Conditions

Because Pacific Gas & Electric Corporation, and its subsidiary, Pacific Gas & Electric Company (the licensee) was under bankruptcy protection/reorganization during the inspection period, NRC Region IV conducted special reviews of processes at Diablo Canyon Power Plant (DCPP). Using the flexibilities in the baseline inspection program, the inspectors evaluated several aspects of the licensee's operations to determine whether the financial condition of the licensee impacted plant safety. The factors reviewed during this period included: (1) impact on staffing, (2) corrective maintenance backlog, (3) changes to the planned maintenance schedule, (4) corrective action program implementation, and (5) any reduction in outage scope, including risk-significant modifications. Considering the licensee's financial difficulties, the inspectors verified that licensee personnel continued to identify problems at an appropriate threshold and enter these problems into the corrective action program for resolution. The inspectors also

verified that the licensee continued to develop and implement corrective actions commensurate with the significance of the problems identified.

The special review of processes at DCPD included continuous reviews by the resident inspectors, as well as the specialist-led baseline inspections completed during the inspection period – emergency preparedness and radiation protection – which are documented in this report. During this period, the inspectors did not identify any indications that the licensee's financial circumstances were adversely affecting plant performance and safety.

INSPECTION RESULTS

Failure to Maintain Structural Fire Barrier in an Approved Design Configuration			
Cornerstone	Significance	Cross-Cutting Aspect	Report Section
Mitigating Systems	Green NCV 05000323/2019003-01 Open/Closed	[H.7] - Documentation	71111.05Q
The inspectors identified a Green, non-cited violation of Operating License DPR-82, License Condition 2. C. (4), "Fire Protection," for the failure to control structural gap seal fire barrier configuration in accordance with the station's NRC-approved fire protection program.			
<p><u>Description:</u> On September 6, 2019, during a fire protection walk-down of the Unit 2, vital 4 kV switch-gear rooms, the inspectors identified that the fire boundary gap seal 23E-24A-4004-15 in the vital bus "F" switch-gear room had not been properly sealed or documented on fire barrier drawings. The licensee evaluated the as-found condition of the fire barrier gap seal and determined that it was not functional per Equipment Control Guidelines ECG 18.7, "Fire Rated Assemblies." The licensee entered the required 1-hour action ECG 18.7 A.1 and established a continuous fire watch in the Unit 2, vital 4 kV bus "F" switch-gear room.</p> <p>The condition was associated with a 3-hour fire barrier which has an approved design configuration in accordance with the approved fire protection program. This type of fire barrier is normally a continuous vertical or horizontal construction assembly designed and constructed to limit the spread of heat and fire and to restrict the movement of smoke. The 4 kV vital bus switch-gear fire barriers protect against external hazard such as the 500 kV main transformer on the other side of the wall from the switch-gear room. The functionality of the fire barrier was questioned when the inspectors found a vertical section with a gap which had not been sealed in accordance with the requirements of the fire protection program. The licensee immediately established a continuous fire watch in the area and initiated repairs to properly seal the gap with pyrocrete.</p> <p>The inspectors reviewed the licensee surveillance program and determined the ECG fire barriers required visual inspections on an 18-month frequency. The most recent surveillance was completed on February 7, 2019, using Procedure STP M-70D, "Inspection of Rated Fire Assemblies, except Penetration Seals, Dampers, & Doors," Revision 23A. Fire barriers are visually inspected for gaps and defects and noted on barrier drawings. Procedures rely on fire barrier drawings to document design penetrations with known deficiencies or gaps. A design configuration, which existed since plant construction, was not on the fire barrier drawings. As a result, Unit 2, vital 4 kV switch-gear room fire barriers drawings, used in visual inspections, were incomplete and inaccurate.</p>			

Diablo Canyon Power Plant is required by operating license condition 2.C.(4), "Fire Protection," to meet the requirements found in the National Fire Protection Association (NFPA) Standard 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants, 2001 Edition." Passive fire barriers are credited as defense-in-depth measures and were evaluated and approved using Engineering Equivalency Evaluations as required by the licensee's approved fire protection program. Diablo Canyon Power Plant demonstrates compliance with NFPA 805 requirements through assessments called fire protection engineering evaluations (FPEE). These FPEEs focus on key fire protection systems and features to ensure they are capable of limiting fire damage and are adequate for the hazard with the appropriate fire safety capabilities.

The inspectors also reviewed FPEE 134, "Non-rated Structural Gap in Fire Barrier," dated December 5, 2017, which stated that gap seal 23E-24A-4004-15 "covers both sides of the gap with a pyrocrete enclosure." Contrary to this requirement, the gap was not covered with pyrocrete and therefore not in the evaluated and approved configuration. Failure to properly implement the required criteria for this fire penetration resulted in the 3-hour fire barrier not meeting requirements in the approved fire program.

The licensee evaluated the as-found gap in the fire barrier and concluded that even with the gap, a fire was not expected to propagate across the fire barrier because of the low fire hazard in the area, separation of the explosion or fire hazard by distance, and existing construction of gypsum and steel separating the 4 kV switch-gear room from the outside main transformer.

Corrective Action References: Notification 51044746

Performance Assessment:

Performance Deficiency: The license failed to control structural gap seal fire barrier configuration in accordance with the station's NRC -approved fire protection program.

Screening: The inspectors determined the performance deficiency was more than minor because it was associated with the Protection Against External Factors attribute of the Mitigating Systems 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 failure of licensee personnel to implement proper configuration control of fire barriers decreased the external event mitigation for fire confinement and may have allowed hot gases or smoke into the vital switch-gear room

Significance: The inspectors assessed the significance of the finding using Appendix F, "Fire Protection and Post - Fire Safe Shutdown SDP." The inspectors determined that the finding was of very low safety significance (Green) because the identified degraded fire confinement element (i.e., fire barrier) was evaluated and found to provide adequate fire endurance to prevent fire propagation through the fire confinement element (i.e., fire barrier), given the combustible loading and location of equipment important to safe shutdown in the fire area of concern.

Cross-Cutting Aspect: H.7 – Documentation – The organization creates and maintains complete, accurate and up-to-date documentation. The finding has a cross-cutting aspect in

human performance, Documentation, because the routine surveillance and inspection drawings did not have complete or accurate documentation.

Enforcement:

Violation: Diablo Canyon Power Plant is required by operating license condition 2.C.(4), "Fire Protection," to meet the requirements found in National Fire Protection Association (NFPA) Standard 805, "Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants, 2001 Edition." Passive fire barriers are credited as defense-in-depth measures and were evaluated and approved using Engineering Equivalency Evaluations as required by the licensee's approved fire protection program. The licensee demonstrates compliance with NFPA 805 requirements through assessments called fire protection engineering evaluations (FPEE). These FPEEs focus on key fire protection systems and features to ensure they are capable of limiting fire damage and are adequate for the hazard with the appropriate fire safety capabilities. As such, DCP's fire protection program required evaluation of non-rated structural gap in fire barriers to meet National Fire Protection Association Standard NFPA 805.

Further, DCP's Facility Operating License condition 2.C.(4). c. (1) states, in part, that PG&E may use an engineering evaluation to demonstrate that changes to certain NFPA 805, Chapter 3, elements are acceptable because the alternative is "adequate for the hazard." The licensee's required evaluation of non-rated penetration seals in rated fire barriers is part of the licensing commitments associated with 10 CFR 50.48(c) (NFPA 805) validation, and updating of engineering evaluations, which form the basis of acceptability are found in "Fire Protection Engineering Evaluations," (FPEE) and are credited part of the DCP fire protection license condition and design basis. In addition, the DCP-approved fire protection program includes Equipment Control Guidelines ECG 18.7, "Fire Rated Assemblies," which is implemented in part by Procedure STP M-70D, "Inspections of Rated Fire Assemblies," to ensure structural fire barriers are routinely inspected against the appropriate criteria and ensure it meets the as-design criteria.

Contrary to the above, prior to September 6, 2019, the licensee failed to implement and maintain in effect all provisions of the approved fire protection program as described in the Fire Prevention Program and required by the Operating License Condition 2.C.(4). Specifically, the licensee failed to ensure the as-found configuration of the fire barrier gap of fire penetration DC-2-98-F-FP-23E-24A-4004A-15 met the required criteria for proper configuration and was appropriately evaluated.

Enforcement Action: This violation is being treated as a non-cited violation, consistent with Section 2.3.2 of the Enforcement Policy.

Unresolved Item (Closed)	Emergency Diesel Generator Mission Time for Operability Evaluations URI 05000275,05000323/2018008-01	71152
Description: The inspectors identified an unresolved item in Inspection Report 2018-008 (ADAMS Accession No. ML18159A483) related to emergency diesel generator (EDG) mission time for operability evaluations. On December 3, 2016, a plant operator discovered that the air inlet boot seal on EDG 1-2 had degraded. A subsequent inspection of the other EDGs across both units revealed that the EDG 2-2 boot seal was also degraded. The licensee performed an operability evaluation and concluded that the EDGs were operable based on a mission time of 24 hours. The licensee then performed a past operability evaluation, concluding that the EDGs had remained able to perform their safety function for this stated 24-hour mission time despite the deficiency; therefore, the licensee determined that no licensee event report was required by 10 CFR 50.73.		

Minor Violation	71152
<p>Minor Violation: Title 10 of the <i>Code of Federal Regulations</i>, Part 50, Appendix B, Criterion V, "Procedures," requires, in part, that "activities affecting quality shall be prescribed by documented procedures and shall be accomplished in accordance with those procedures." Procedure OM7.ID12, "Operability Determination," defines mission time as "the duration of SSC operation that is credited in the current licensing bases for the SSC to perform its specified safety function." The inspectors determined that PG&E operations personnel failed to follow the requirements of OM7.ID12 when they used 24 hours as the duration of EDG operation required for it to perform its specified safety function in a justification for operability (i.e., mission time).</p> <p>Screening: The inspectors determined the performance deficiency was minor. The inspectors requested information related to the basis of the use of a 24-hour mission time for EDG operability determinations. The licensee provided a non-controlled reference document, "Engineered Safety Feature (ESF) Equipment Mission Time," and the PG&E Procedure OM7.ID12, "Operability Determination." Procedure OM7.ID12 defines mission time as "the duration of SSC operation that is credited in the current licensing bases for the SSC to perform its specified safety function." Additionally, the non-controlled "Engineered Safety Feature (ESF) Mission Time" document lists the mission time for the EDGs as "7 days (24 hours, 6 hours)." The 6- and 24-hour values were specified based on the particular accident sequence and electrical power recovery time and originated from a letter sent to the NRC-related to the licensee's Individual Plant Examination of External Events (IPEEE) circa 1994, which is a plant-specific probabilistic risk assessment (PRA). The 7-day value is related to DCPD license bases requirements including the required diesel fuel oil storage volume as discussed in Technical Specification Bases 3.8.3, "Diesel Fuel Oil, Lube Oil, and Starting Air and Turbocharger Air Assist." The inspectors determined that the use of 6 hours and 24 hours as a mission time for EDG operability determinations at DCPD could not be justified based on information contained in the plant licensing basis. Based on a thorough review of DCPD licensing basis documentation, the inspectors did not identify a reason to challenge the use of 7 days as a mission time for EDG operability at DCPD.</p> <p>The issue was evaluated in accordance with Inspection Manual Chapter 0612, "Issue Screening," and determined to be minor since an engineering evaluation performed as a result of the inspectors' inquiries determined that the EDG would have remained operable in excess of the 7-day mission time subsequently determined by the licensee to be appropriate.</p>	

As a result of the violation, PG&E personnel discontinued the use of timeframes of less than 7 days as an EDG mission time in operability determinations, performed an evaluation to determine EDG past operability, and re-evaluated 10 CFR 50.73 reportability requirements using EDG operability with a 7-day mission time.

Enforcement: This failure to comply with 10 CFR Part 50, Appendix B, Criterion V, "Procedures," constitutes a minor violation that is not subject to enforcement action in accordance with the NRC's enforcement policy. Specifically, this violation was similar to examples of issues having minor safety significance as described in Inspection Manual Chapter 0612, Appendix E, (examples 3.j, 3.k).

EXIT MEETINGS AND DEBRIEFS

The inspectors verified no proprietary information was retained or documented in this report.

- On July 25, 2019, the inspectors presented the Emergency Plan Revision In-Office Review inspection results to Mr. M. Ginn, Manager, Emergency Preparedness, and other members of the licensee staff.
- On July 26, 2019, the inspectors presented the Radiation Cornerstone Inspection, ALARA IP 71124.02 & Dose Assessment IP 71124.04 inspection results to Mr. J. Welsch, Senior Vice President, Generation and Chief Nuclear Officer, and other members of the licensee staff.
- On October 7, 2019, the resident inspectors presented the integrated inspection results to Ms. P. Gerfen, Site Vice President, and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.01	Drawings	515222	Architectural Door Schedule, Sheet 1	82
71111.01	Drawings	59565	Architectural Plan Area 'K', Sheet 1	29
71111.01	Miscellaneous	DCM No. S-61B	500 kV and 230 kV Systems	18
71111.01	Miscellaneous	ML17328A249	NRC Staff Assessment of Flooding Focused Evaluation	12/18/2017
71111.01	Procedures	CP M-16	Severe Weather	17
71111.01	Procedures	DCM T-45	Diverse and Flexible Coping Strategies	0
71111.01	Procedures	EOP ECA-0.0	Loss of Vital AC Power	33
71111.01	Procedures	OP J-2:VIII	Guidelines for Reliable Transmission Service for DCPD	32
71111.01	Procedures	STP M-70.SWG	Inspection of ECG Swing Type Doors	10
71111.04Q	Corrective Action Documents	Notifications	51035933, 51047355	
71111.04Q	Procedures	MP I-2.28	Activation of RVRLIS	29
71111.04Q	Procedures	OP A-2:II	Reactor Vessel- Draining the RCS to the Vessel Flange	51
71111.04Q	Procedures	OP D-1:II	Auxiliary Feedwater System – Alignment Verification for Plant Startup	35B
71111.04Q	Procedures	OP Z-2:X	RVRLIS Alignment for Head Removal	8B
71111.05Q	Corrective Action Documents	Notifications	51044746, 51046372, 51045097,51044746	
71111.05Q	Drawings	PA-1	Intake Structure	2
71111.05Q	Drawings	RA-9	H Block Elev. 115'	3
71111.05Q	Procedures	STP M-70D	Inspection of Rated Fire Assemblies	23A
71111.05Q	Work Orders		64214038, 64214039, 64169950	
71111.06	Corrective Action Documents	Notifications	51040590, 51040642	
71111.06	Procedures	AR PK15-01	Annunciator Response Diesel Fuel Sump	22
71111.06	Procedures	OP J-6C:VI	Diesel Fuel Oil Transfer System – Pipe leak Detection Equipment	8
71111.06	Work Orders		64224911	
71111.11Q	Procedures	AP-27	Loss of Vital 4 kV Bus	9
71111.11Q	Procedures	EOP EO	Reactor Trip / Safety Injection	45
71111.11Q	Procedures	O B-2:V	Residual Heat Removal in Service	37

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.11Q	Procedures	OP AP-12B	Control Rod Misalignment	19
71111.11Q	Procedures	OP AP-12C	Dropped Control Rod	17
71111.11Q	Procedures	OP L-5	Plant Cooldown from Minimum Load	88B
71111.11Q	Procedures	PEP R-10	Control Rod Exercising for CRDM Crud Mitigation	5
71111.11Q	Procedures	STP M-91	Emergency Diesel Generator Start and Loading	29A
71111.11Q	Procedures	STP M-9A1	Emergency Diesel Generator Routine Surveillance	13A
71111.11Q	Procedures	STP R-7D	Determination of Moderator Temperature Coefficient at Power with Temperature Coastdown	7A
71111.11Q	Work Orders		64174355	
71111.12	Corrective Action Documents	Notifications	50987717, 50989078, 50989402, 51009184, 51017602, 51032964, 51033302, 51041907, 51042007, 51042028, 51042050, 51042051	
71111.12	Miscellaneous		System Health Report - Vital Battery	
71111.12	Miscellaneous	DCM S-67/ 37	125V/250V Direct Current System	
71111.12	Miscellaneous	PC-09-01	Maintenance Rule Summary - Fire Water system	5
71111.12	Miscellaneous	PC-67A-01	Maintenance Rule Summary - Vital Battery	
71111.12	Procedures	MP E-67.3C	Maintenance of Solid State Controls 400A Vital Station Battery Chargers	11
71111.12	Procedures	STP M-16D	Operation of Train B Slave Relay K608 (Safety Injection)	43
71111.12	Work Orders		60112506, 64193715, 64207195, 64208170, 64209249, 64211081	
71111.13	Corrective Action Documents	Notifications	50970602, 51019330, 51028007, 51036525, 51037072, 51037549, 51038399, 51038997	
71111.13	Procedures	AD7.DC6	On-Line Maintenance Risk Management	27
71111.13	Procedures	AD8.DC50	Outage Safety Management	5
71111.13	Procedures	OP O-36	Protected Equipment Postings	21
71111.13	Procedures	OP O-36	Protected Equipment Postings	20
71111.13	Procedures	STP M-39B	Routine Test of Cable Spreading Room CO2 system	38
71111.13	Work Orders		60121068, 64162178	
71111.15	Corrective Action Documents	Notifications	50974282, 51001419, 51014603, 51015347, 51034564, 51034572, 51038997, 51039785, 51039971, 51040557, 51040590, 51041134, 51043265, 51045111, 51045112	
71111.15	Procedures	AD7.DC6	On-Line Maintenance Risk Management	27

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.15	Procedures	OM7.ID1	Emerging Issue and Event Investigations	54
71111.15	Procedures	OM7.ID12	Operability Determinations	39
71111.15	Procedures	OM7.ID12	Operability Determinations	40
71111.15	Procedures	OP J-2:VIII	Guidelines for Reliable Transmission Service for DCP	32
71111.15	Procedures	Ops Policy B-40	Operations Response to Wildfires	0
71111.15	Work Orders		60120285, 60121068, 60121341, 60122003	
71111.18	Corrective Action Documents	Notifications	50812660, 51041151	
71111.18	Miscellaneous	90-42456	SAMG Setpoint Development Calculation	0
71111.19	Corrective Action Documents	Notifications	51035295, 51036524, 51036803, 51040557, 51040590, 51040642, 51041134, 51045953	
71111.19	Drawings	102021	Diesel Engine Generator Associated Systems, Sheet 2	67
71111.19	Drawings	106721	Diesel Fuel Oil System, Sheet 2	68
71111.19	Drawings	6008437	Diesel Fuel Oil Leak Detection, Sheet 10	3
71111.19	Procedures	AR PK15-01	CONTMT/TB SUMP/DSL FO VAULT LVL/DSL FO FLTER DP	22
71111.19	Procedures	MP I-2.24-1	Installation of Metallic Compression Fittings on Instrument Tubing	9
71111.19	Procedures	STP I-100A	Functional Test of Containment Air Radio-gas Monitor RM-12	16
71111.19	Procedures	STP M-3A	Auxiliary Building Ventilation System – DOP and Halide Penetration Test	14
71111.19	Procedures	STP P-RHR-11	Routine Surveillance Testing of RHR Pump 1-1	26
71111.19	Work Orders		51035795, 60120663, 60120740, 60121441, 60121465, 64155747, 64184972, 64213964	
71111.22	Corrective Action Documents	Notifications	50813278, 50952156, 50954161, 50970812, 51040847, 51041022, 51047875	
71111.22	Drawings	441297	Logic Diagram 4160 Volt Bus Section G	14
71111.22	Procedures	OP J-6A:II	Transferring 4 kV Busses	18
71111.22	Procedures	STP I-9	12 kV Bus RCP U/F and U/V Channels Calibration and Time Response Test	10
71111.22	Procedures	STP M-13F	4 kV Bus F Non-SI Auto Transfer Test	65
71111.22	Procedures	STP M-15	Integrated Test of Engineering Safeguard	72
71111.22	Procedures	STP V-2D	RHR Pump Recirculation Valves	7
71111.22	Procedures	STP V-3M1B	Exercising Valve RHR-FCV-641B, RHR Pump 2 Recirculation	5

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Valve	
71111.22	Work Orders		64175687, 64186351	
71114.04	Miscellaneous	DCL-19-025	Docket No. 50-275, OL-DPR-80; Docket No. 50-323, OL-DPR-82; Diablo Canyon Units 1 and 2; Docket No. 72-26, Materials License No. SNM-2511; Diablo Canyon Independent Spent Fuel Storage Installation; Emergency Plan Update	4/4/2019
71114.04	Miscellaneous	Tracking Number 2018-97	Revise DCPD Severe Accident Management Guidelines (SAMGs) Based on the Latest Pressurized Water Reactor Owners' Group (PWROG) Generic Severe Accident Technical Guidelines	2/15/2019
71114.06	Corrective Action Documents	Notification	51038507, 51041749, 51041801	
71114.06	Procedures	AR PK15-24	Seismic Instrument Alarm	13
71114.06	Procedures	EOP ECA 0.3	Restore 4 kV Buses	20
71114.06	Procedures	EOP ECA-1.1	Loss of Emergency Coolant Recirculation	27
71114.06	Procedures	EP G-1	Emergency Classification / Emergency Plan	46
71114.06	Procedures	FSG 0.5	FLEX Support Guidelines- Assessment / FLEX Equipment Strategy	4
71114.06	Procedures	FSG 58	FLEX Support Guidelines - Placing 4 kV in Service	1
71114.06	Procedures	OP AP-27	Loss of Vital 4 kV and 480 VAC bus	9
71114.06	Procedures	OP1.DC10	Conduct of Operations	56
71124.02	Corrective Action Documents	SAPN	50943780, 50975426, 50981002, 5098399, 51016203, 51017812, 51019489, 51023740	
71124.02	Miscellaneous	Unit-1	1R21 Post Outage ALARA Report	3/18/19
71124.02	Miscellaneous	Unit-2	2R20 Post Outage ALARA Report	3/22/18
71124.02	Procedures	RCP D-200	Writing RWPs and ALARA Processes	58A
71124.02	Procedures	RCP NISP-RP.04	Radiological Posting and Labeling	1
71124.02	Procedures	RCP NISP-RP.05	Access Controls for High Radiation Areas	1
71124.02	Procedures	RP1.DC8	Radiation Protection Code and Conduct	5
71124.02	Procedures	RP1.ID1	ALARA Program	10
71124.02	Self-Assessments	ASMP SAQH 51025561	Quick hit self-assessment (QHSA) is to perform a pre-inspection assessment using NRC Inspection Procedure 71124.02	5/13/19
71124.04	Corrective Action	SAPN	50975426, 50981002, 51016203, 51023740	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Documents			
71124.04	Procedures	RCD D-330	Personnel Dosimetry Evaluations	13
71124.04	Procedures	RCP D-370	Evaluations of Internal Deposition of Radioactive Material	13
71124.04	Procedures	RP1	Radiation Protection	9
71124.04	Procedures	RP1.ID10	Embryo/Fetus Protection Program	9
71124.04	Procedures	RP1.ID6	Personnel Dose Limits and Monitoring	16
71124.04	Self-Assessments	2016 Mirion Audit 2019 follow-up audit.	2016 Mirion Audit and follow up by PGE	8/26/16
71124.04	Self-Assessments	ASMP SAQH 51025562	Quick hit self-assessment (QHSA) for pre-inspection assessment using NRC Inspection Procedure 71124.04	5/13/19
71124.04	Self-Assessments	No. 173180001	2018 Radiation Protection Programs Audit	2/1/18
71124.04	Self-Assessments	SAPN DN 50985673	Mirion Dosimetry Laboratory Audit	6/30/19
71151	Miscellaneous	DCPP MSPI Basis	Mitigating System Performance Index Basis Document	10
71151	Miscellaneous	MSPI Derivation Reports	Unit 1 and 2 Diablo Canyon (MSPI MS 08,09,10)	8/2019
71151	Miscellaneous	NEI 99-02	Regulatory Assessment Performance Indicator Guideline	7
71151	Miscellaneous	Technical Specification Logs	Diablo Canyon Power Plant	7/1/2018- 6/30/2019
71151	Procedures	XI1.ID5	Collection and Submittal of NRC Performance Indicators	1
71152	Corrective Action Documents	Notifications	51040307, 51041907, 51042050, 51042730, 51045163, 51045164, 51045238, 51045239	
71152	Drawings	515220	Door Schedule; Sheet 1 and 2, Unit 1	67
71152	Drawings	515225	Door Schedule; Important to Safety Doors, Unit 2	69
71152	Drawings	515939	HELB Compartment Pressurization Study; 85-foot elevation Turbine Building	4
71152	Drawings	515940	HELB Compartment Pressurization Study; 104-foot elevation Turbine Building	5
71152	Drawings	515945	HELB Compartment Pressurization Study; 85-foot elevation Auxiliary and Containment Building	4
71152	Miscellaneous	Calculation No. 235T-DC	Class 1E, Battery Capability Calculation During Battery Discharge Test	0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71152	Miscellaneous	Calculation No. 360-DC	125 VDC System Analysis Methodology & Scenario Development	3
71152	Miscellaneous	EOP ECA-0.0	Loss of Vital AC Power	33
71152	Procedures	AD7.ID5	Scaffold Material Structure	13
71152	Procedures	MIP C-14.0	Temporary Scaffolding	1
71152	Procedures	OM4.ID14	Notification Review Team (NRT)	32
71152	Procedures	OM7.ID1	Problem Identification and Resolution	54