

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE**Report on****Fact-Finding Meeting at DCP
on July 6, July 7, and August 13, 2026****by****Per F. Peterson, Member, with Richard McWhorter, Consultant****1.0 SUMMARY**

The results of the DCISC July 6, July 7, and August 13, 2026, Fact-Finding Meeting at the Diablo Canyon Power Plant (DCPP) in Avila Beach, CA, are presented. The subjects addressed and summarized in Section 3 are as follows:

1. Dropped Control Rod Event Corrective Actions
2. Major Project Planning
3. Reports on 2025 Radiation Releases and Radioactive Environmental Monitoring
4. Observe Leadership Alignment Meeting
5. Condensate and Feedwater System Health
6. Station Update
7. Reactor Vessel Embrittlement Sample Capsule B Report
8. Meet with DCP Officer
9. Fire Protection Program and System Health
10. Safety-Related Fuse Failure
11. Observe Nuclear Safety Oversight Committee Meeting (Remote)

2.0 INTRODUCTION

This Fact-Finding Meeting at the DCP was held to evaluate specific safety matters for the DCISC. The objective of the evaluation was to determine if Pacific Gas and Electric's (PG&E's) performance is appropriate and whether any areas revealed observations which are important enough to warrant further review, follow-up, or presentation at a public meeting. These safety matters include follow-up and/or continuing review efforts by the Committee, as well as those identified as a result of reviews of various safety-related documents.

Section 4 – Conclusions, highlights the conclusions of the Fact-Finding Team (FFT) based on items reported in Section 3 – Discussion. These highlights also include the FFT's suggested follow-up items for the DCISC, such as scheduling future Fact-Finding Meetings on the topic, presentations at future public meetings, and requests for future updates or information from DCP on specific areas of interest, etc.

Section 5 – Recommendations, presents specific recommendations to the DCISC and PG&E proposed by the FFT. These recommendations will be considered by the DCISC. After review and approval by the DCISC, this Fact-Finding Report, including its recommendations, will be provided to PG&E. The Fact-Finding Report will also appear in the DCISC Annual Report.

3.0 DISCUSSION

3.1 Dropped Control Rod Event Corrective Actions

The DCISC FFT met with Bob Waltos, Chief Nuclear Engineering Specialist, for an update on corrective actions taken in response to a dropped Control Rod event that occurred in August 2024 on Unit 1. The DCISC last reviewed this topic during its November 2024 Fact-Finding Meeting (Reference 6.1), when it concluded the following:

DCPP's response to an August 2024 dropped control rod event was appropriate, and suitable interim corrective actions were initiated. Further corrective actions may be undertaken later after industry-wide guidance on the technical issues has been finalized, and the DCISC should follow up on these future corrective actions.

Additionally, during the DCISC's November 2024 Fact-Finding Meeting, the following recommendation was opened:

The DCISC should follow up on future corrective actions that may be initiated in response to an August 2024 dropped rod event. (D11/24FF-3.13)

The subject event occurred on August 31, 2024, during a controlled insertion of Unit 1 Control Rod Bank D, when Control Rod P10 unexpectedly dropped from approximately 75% withdrawn to the fully inserted position in the Reactor. At the time of the event, the unit was at 50% power to perform a “pick and dredge” cleaning of the Main Condenser water boxes (seawater side). The dropped rod caused a step reduction in Reactor power after which the unit was stabilized at the lower power level for troubleshooting and recovery.

Rod drop is part of Category II events, “Faults of Moderate Frequency,” and analysis in the Updated Final Safety Analysis Report (UFSAR) shows that this scenario can be recovered from while meeting safety limits on power, reactivity control, pressure, and temperature transients, in both manual and automatic control modes for the control rod banks (Ch 15.2 in UFSAR). A rod drop scenario is within the design basis of the control rod (Ch. 4.2 of UFSAR), and the rod is designed to withstand the forces it experiences during a drop event.

The rod drop was investigated using detailed Westinghouse vendor guidance for troubleshooting Rod Control System problems. Using the troubleshooting procedure, system electrical issues were promptly eliminated as a possible cause. Also, the extensive data that DCPP collected on all Control Rod Drive Mechanisms during outages were reviewed, and no abnormalities were found for the Control Rod in question (P10). Reactor Engineers evaluated the transient conditions in the Reactor Core and concluded that there were no nuclear safety concerns or significant effects on

neutron flux distribution. Approximately 18 hours after the event occurred, troubleshooting was completed and operators returned the Control Rod to its normal position in alignment with the other rods in Bank D.

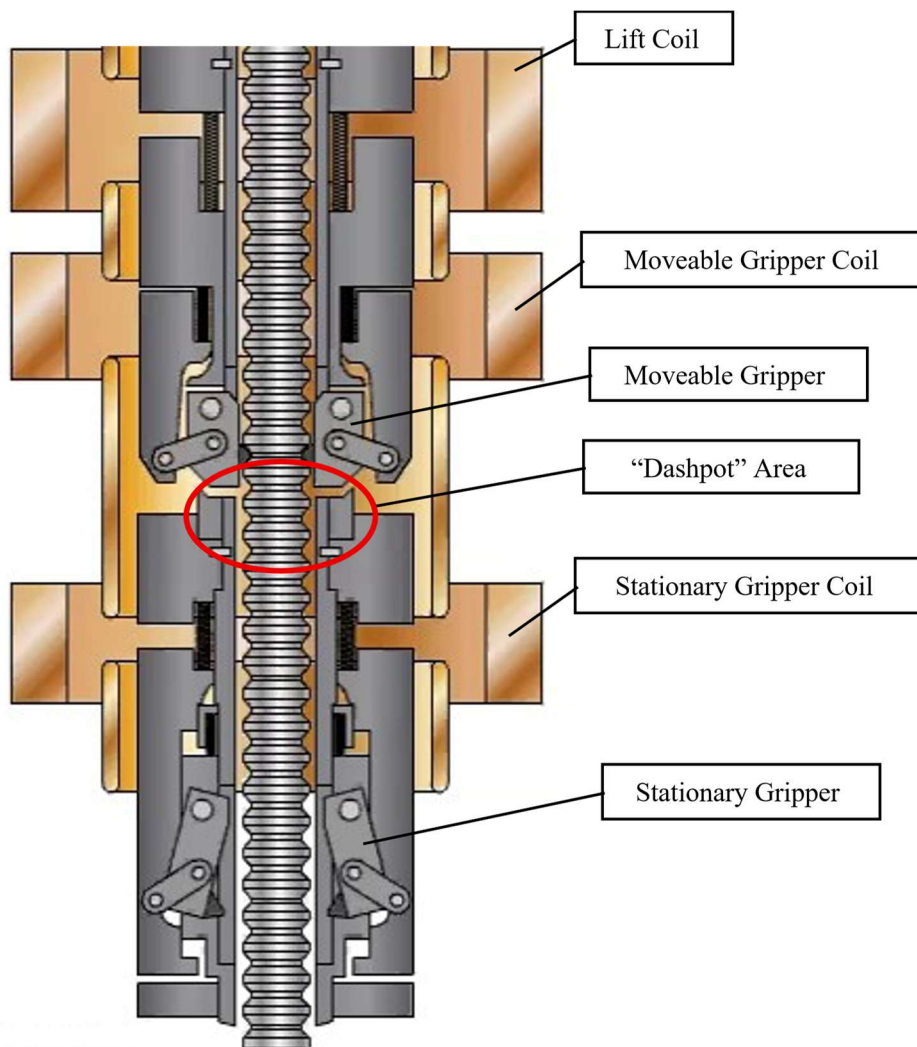
It was then concluded that the most likely cause was buildup of corrosion products on the dashpot area near the gripper mechanisms that move and hold the Control Rod Drive Screw. Industry experience had identified that such a buildup of corrosion products could occur due to a combination of the low coolant flow in the area and the long time periods during which the rods are often held at the fully withdrawn position. In such cases, the vendor recommended that the corrosion products would likely have been removed by the physical action of the rod drop and the buildup of corrosion products would not impair the safety function of the rods to drop into the core and shut down the reactor. The FFT notes, in the event progression the corrosion products which inhibited full latching did not have an effect on the safety function of the rod to fully insert into the core during a reactor trip since the rod fully inserted during the drop event.

During the DCISC's November 2024 review, the DCISC inquired about what corrective actions were planned to prevent recurrence, and DCPD responded that possible changes to surveillance tests or other related activities were not yet finalized. An industry working group comprising of other owners of Westinghouse Pressurized Water Reactors was actively working on finalizing a new generic guidance document that would provide recommendations for the mitigation of corrosion product buildup within the Control Rod Drive Mechanisms (CRDMs). The purpose of this review was to receive an update on the status of industry guidance and DCPD's implementation of additional corrective actions since the DCISC's last review.

Mr. Waltos explained to the FFT the actions that had been taken by DCPD since the DCISC's last review. He noted that on May 17, 2025, another similar event occurred on Unit 1 when Control Rod F02 slipped from 119 to 90 steps during an inward move during initial reactor startup following Refueling Outage 1R25. This second event also did not affect the safety function of the rod to fully insert into the core during a reactor trip. The more recent event was similar to the 2024 event in that troubleshooting found no electrical problems, and CRDM coil current traces measured during post-outage testing just three days prior to the event did not indicate any abnormal conditions. The FFT recommends that the DCISC review the current practices and recent results for CRDM surveillance testing in a future Fact-Finding Meeting. In response to the FFT's question, he reported that the CRDMs were about 16 years old having been replaced concurrent with the Reactor Vessel Head replacement in 2010 for Unit 1.

DCPD provided the FFT with copies of three Notifications related to the events (SAPNs 51261918, 051253070, and 51252595) along with several revised procedures used for Control Rod testing and a copy of a presentation on CRDM Misstepping made to the Plant Health Committee in March 2026. Mr. Waltos reviewed with the FFT the multiple actions discussed in the documents and taken by DCPD and the industry in general in response to the problems. Based on data taken from industry surveys as well as the disassembly of a CRDM removed from a similar plant, the vendor continued to believe that the cause of the problems was the buildup of small amounts of corrosion products in the dashpot and stationary gripper regions of the CRDMs. This buildup of corrosion products occasionally prevented the stationary gripper from fully engaging with the control rod

even when the proper amount of electrical current was applied to the stationary gripper coil. The arrangement of the grippers and coils are shown in the diagram below:



Control Rod Drive Mechanism Arrangement

The industry data also showed that there was no clear commonality of contributing factors across events other than a tendency for the events to happen during insertion movements for rods closer to the periphery of the core. Industry data also continued to support the conclusion that the buildup of corrosion products did not impair the safety function of the grippers in releasing the rods to drop into the core and shut down the reactor during a reactor trip.

Mr. Waltos reported that DCPD and other plants in the industry reviewed whether recent reductions in the frequency of rod exercise surveillances (moving rods in and out of the core) conducted at power correlated to an increase in CRDM misstepping events, and industry data showed that there was no correlation. DCPD's plant-specific data also confirmed that the frequency of such events had not increased since DCPD's implementation of reduced frequencies of surveillances performed at power over the last few years. He noted that although the amount of surveillance testing

performed at power had been reduced, offline post-outage rod drop testing and current measurements had continued without any significant changes.

The implementations of both prudent and corrective actions are tracked in the Corrective Action Program and overseen by the Performance Improvement group as well as the CARB. The PHC periodically reviews the health of all systems (including corrective actions for recent problems) and rod control would be a system that is typically reviewed every few years. Mr. Waltos reported that DCPD had completed all corrective actions for the two recent rod drop events with several minor prudent actions remaining to be completed. The most significant corrective action initiated to help prevent future problems was the scheduling of an updated post-outage surveillance test, PEP R-1D, "Control Rod Exercising for CRDM Crud Mitigation," Revision 6, (no date provided), which fully exercises all rod banks multiple times prior to reactor startups following refueling outages. The practice of performing this test began following Refueling Outage 2R25 in the fall of 2025 and will continue for all future outages.

Based on the information provided by PG&E and verified by documents reviewed, the FFT concluded that DCPD's corrective actions taken in response to two recent Control Rod drop events were appropriate and suitable long-term corrective actions were initiated. The FFT noted that a copy of a presentation made to the Plant Health Committee in March 2026 on this topic was excellent and noteworthy in its clear presentation of the results of the detailed analyses performed in response to these events.

Conclusion: The corrective actions completed by DCPD in response to two Control Rod drop events were appropriate, and suitable long-term corrective actions were initiated.

Recommendations to the DCISC:

The following previous recommendation to the DCISC was reviewed in this Fact-Finding Meeting and is recommended for closure: *The DCISC should follow up on future corrective actions that may be initiated in response to an August 2024 dropped rod event. (D11/24FF-3.13)*

The DCISC should review current practices and recent results for the surveillance testing of Control Rod Drive Mechanisms during a future Fact-Finding Meeting. (D7/6/26FF-3.1)

Recommendations to PG&E: None.

3.2 Major Project Planning

The DCISC FFT met with Al Bates, Nuclear Projects Director; Katie Bartlett, Projects Manager; and Mark Sciacca, Feedwater Heater Project Director, for an update on the status of major project planning. Delphine Hou, Harpreet Bhalla, Deb Luchsinger, and Jerry Bischof from the California Department of Water Resources (DWR) participated remotely in the meeting. (DWR is the state agency charged with overseeing state funds allocated to facilitate the extension of DCPD power operations under Senate Bill 846.) The DCISC last reviewed major project

planning during its January 2025, Fact-Finding Meeting (Reference 6.2), when it concluded the following:

The DCISC found that PG&E's planning for upcoming major plant projects was being effectively managed and projects important to safety were being pursued for implementation.

Additionally, during the DCISC's April 2026 Fact-Finding Meeting (Reference 6.3), the following recommendation was opened:

The DCISC should continue to follow and support DCP's plans for future Feedwater Heater replacements. (D4/26FF-3.10A)

Mr. Sciacca briefed the FFT on projects currently planned for implementation in the upcoming Refueling Outages 1R26 (fall 2026) and 2R26 (spring 2027) which included:

Both Units

- Condenser Pressure Transmitter Relocation
- Main Generator Relay Replacement (with digital relays)
- Tri-Conics Control System Migration (new hardware and software; no programming changes)
- Condenser Water Box Coatings
- Main Annunciator System Replacement (with digital system)
- Circulating Water Pump Motor rewind (replacement of motor rotor and in-situ rewind of the very large motor stator)
- Fuel Transfer Cart Upgrades (must be completed before reactor fuel offload begins)
- Feedwater Heater Replacement Preparatory Activities (minor electrical conduit relocations)

Unit 1 Only

- 230kV Relay Replacement with Digital Relays (already complete on Unit 2)
- Intake Screen Wash Piping Replacement (already complete on Unit 2)
- Condenser saltwater expansion joint replacements (already complete on Unit 2)
- Reactor Vessel and Baffle Bolt In-Service-Inspection (already complete on Unit 2)
- 500kV Tie Line Relay Replacement with Digital Relays (already complete on Unit 2)
- Auxiliary Transformer 1-1 Radiator Replacement

Unit 2 Only

- 500kV Tower 5/4 replacement
- Reactor Upper Internals Lower Flange Weld Ultrasonic Testing
- Advanced Reactor Fuel Features (Advanced Doped Pellet Technology, optimized cladding, and improved grid design; Unit 1 to follow later)
- 500kV Lightning Arrestor replacement (Unit 1 to follow later)

Projects currently forecasted for implementation in Refueling Outages 1R27 (spring 2028) and 2R27 (fall 2028) included:

- Feedwater Heater (FWH) Replacements [optional if required to address accelerated degradation and to maintain operations until 2029 (Unit 1) and 2030 (Unit 2), and required if extended operation beyond these dates is authorized]
- Circulating Water Pump Mechanical Seal Replacements
- Condensate Booster Pump Baseplate Replacement (Unit 1 only)

Mr. Bates noted that the Circulating Water Pump Motor rewinds (beginning with pump 1-2 in 1R26) will likely require a longer duration than that scheduled for refueling the reactor. As such, the unit would likely start up and run with only one Circulating Water Pump available at a reduced power (about 50%) for a short period of time while the work is being completed. The duration of the period of reduced power operations was not yet known but would likely be on the order of one to two weeks.

The FFT inquired about the progress of plans for the possibility of replacing the FWHs during Refueling Outage 1R27 and 2R27 [contingent upon state authorization of an extension of operations beyond 2029 (Unit 1) and 2030 (Unit 2)]. Mr. Sciacca replied that the project was currently considered as a contingency plan to support any needed emergent repairs. When asked what the lead time would be to begin detailed planning and contracting for installation of the FWHs in the 1R27 and 2R27 outages, he reported that a minimum of 12 months would be necessary to successfully plan for installing new FWHs during the 1R27 outage. That timeframe implied that a decision to proceed with FWH replacement would need to be made by early 2027 to support replacing the Unit 1 FWHs during the 1R27 outage in the spring of 2028.

Lastly, the FFT inquired what was the status of planning for projects that could be needed should DCP operations beyond 2030 be authorized by state authorities. Mr. Bates reported that there were no specific plans in progress for major projects to be implemented beyond the 1R27 and 2R27 outages. A related current focus of the station was an emphasis on preparing Lifecycle Management Plans (LMPs) for various major systems and processes at DCP. These Lifecycle Management Plans would serve as a basis for identifying areas where future major projects could be warranted to support maintaining a high level of reliability at the station. He believed that much of such efforts would likely be generally focused on upgrading older electrical systems and constraints posed by obsolete equipment.

The FFT concluded that PG&E's planning for upcoming major plant projects was being effectively managed and projects important to safety were being pursued for implementation.

Conclusion: The DCISC found that PG&E's planning for upcoming major plant projects was being effectively managed and projects important to safety were being pursued for implementation.

Recommendation to the DCISC:

The following previous recommendation to the DCISC was reviewed in this Fact-Finding Meeting and remains open: *The DCISC should continue to follow and support DCP's plans for future Feedwater Heater replacements. (D4/26FF-3.10A)*

Recommendations to PG&E: None.

3.3 Reports on 2025 Radiation Releases and Radioactive Environmental Monitoring

The DCISC FFT met with Dan McBride, Operations Services Director; Dave Cortina, Chemistry and Environmental Operations Manager; Josh Mendez, Radiation Protection Manager; David Valentine, Chemistry Engineering Supervisor; Matthew Hoey, Chemistry Engineer; and Austin Luedtke Radiation Protection Engineer, to review the 2025 Annual Radiological Effluent Release Report (ARERR) and the 2025 Annual Radiological Environmental Operating Report (AREOR), which were submitted to the Nuclear Regulatory Commission (NRC) in April 2025 (References 6.4 and 6.5). The DCISC last reviewed these reports (for calendar year 2024) in July 2025 (Reference 6.6), when it concluded the following:

The DCP's Radioactive Effluent Release Program and the Radiological Environmental Monitoring Program appeared satisfactory in calculating, monitoring, and measuring radioactivity in the environment. During 2024 there were no abnormal releases of radioactivity nor were there any abnormal levels of radioactivity detected in the environment surrounding DCP. DCP's site operations had no significant radiological impact on the health and safety of the public or the environment, and radioactive releases were far below regulatory limits.

2025 Annual Radioactive Effluent Release Report (ARERR)

The ARERR described the measured/calculated quantities of radioactive gaseous effluents, liquid effluents, solid waste shipments, and direct radiation released from the plant in 2025. The descriptions below represent selected, representative excerpts from the report.

The 2025 ARERR summarized gaseous and liquid radiological effluent releases from DCP Units 1 and 2, direct radiation dose to a member of the public, and shipment of solid radioactive waste. The report included the dose to hypothetical representative offsite receptors due to the release of radioactive liquid and gaseous effluents and summarized solid radwaste shipments from the site. The report contained information required by Units 1 and 2 Technical Specification 5.6.3 and was presented in the general format of NRC Regulatory Guide 1.21 (Reference 6.7). In all cases, the doses associated with plant effluent releases during the report period were much less than the respective Technical Specification, Offsite Dose Calculation Manual (ODCM), and NRC limits. Results of the monitoring program reflected continued effort to maintain the release of radioactive effluents to the environment As Low As Reasonably Achievable (ALARA). The results were calculated (based on measured data) in accordance with the ODCM. Tables taken from the ARERR showing the three-year summary of radioactive releases (gaseous and liquid) and solid waste shipments from DCP are shown below:

Gaseous Waste	2025	2024	2023
Tritium (Ci)	47.0	39.9	51.1
C-14 (Ci)	21.1	21.9	21.7
Fission and Activation Gases (Ci)	1.23	6.07	0.83
Total Particulates with half-lives >8 days (Ci)	7.86E-05	4.35E-05	1.28E-05
Gross Alpha (Ci)	N/D	N/D	N/D
Iodine (Ci)	N/D	N/D	N/D
Calculated Gamma Air Dose (mRad)	2.65E-03	1.76E-03	1.03E-03
Calculated Beta Air Dose (mRad)	1.00E-03	2.07E-03	4.25E-04
Total Body Dose (mRem)	3.15E-03	3.11E-03	2.22E-03
Number of Refueling Outages	2	1	1
Unit 1 Capacity Factor	88.0 %	98.6 %	83.0 %
Unit 2 Capacity Factor	88.2 %	86.6 %	98.1 %

Three-year Summary of All Radioactive Gaseous Releases to the Environment from DCPD (from ARERR page 2)

Liquid Waste	2025	2024	2023
Total Activity Excluding Tritium (Ci)	3.55E-02	2.30E-02	1.70E-02
Tritium Activity (Ci)	2760	1582	2530
Total Body Dose (mRem)	3.85E-04	2.17E-4	5.71E-04
Total Volume of Primary Liquid Waste Released (liters)	8.74E+06	6.09E+06	7.10E+06

Three-year Summary of All Radioactive Liquid Releases to the Environment from DCPD (from ARERR page 3)

Total Solid Waste	2025	2024	2023
Shipped (m ³)	94	116	105
Shipped (Ci)	2.4	130	135

Three-year Summary of All Radioactive Solid Waste Shipments from DCPD (from ARERR page 4)

Overall, the liquid and gaseous radioactivity releases from DCPD were well-controlled and maintained as low as reasonably achievable. The total radioactivity for liquid releases was slightly higher than the two previous years because two refueling outages took place in 2025 (versus one refueling outage in both 2024 and 2023). Additionally, the PG&E staff pointed out that included in the report was a discussion about a leak and slow depressurization event that occurred on Gas Decay Tank 1-3 in March 2025. The leak did not meet the reporting threshold as an abnormal discharge and was captured by the Auxiliary Building Ventilation System which discharges through a monitored plant vent stack. The event was evaluated as an unplanned but monitored

discharge. There were no other off-normal operations or events related to radioactive waste regarding occurring at the station during 2025. The 2025 results from DCPD were well below all applicable limits for liquid and gaseous releases, and there were no abnormal or uncontrolled releases during 2025.

For evaluating doses from direct radiation, the ARERR reported that, “Due to the terrain surrounding the plant, DCPD has no offsite direct radiation receptors with significant occupancy. Therefore, a bounding value for dose from direct radiation has been calculated for a receptor location that is onsite and close to both the sources and the nearest site boundary.” (The term “receptor” refers to a location where members of the general public have unrestricted access and may reside.) Accordingly, as bounding value, the yearly dose is calculated for a worker with unrestricted access at the make-up water reverse osmosis plant, using contributions of direct radiation from storage of high level and low level radioactive waste. The bounding value reported in the ARERR was 6.3 mrem/year, well below the 40 CFR 190 limit of 25 mrem/year.

Based on records of 2025 radioactive liquid and gaseous releases, the following off-site radiation doses to the total body of a hypothetical individual at the closest residence on the northwest site boundary full-time and the corresponding percent of ODCM limits for the year 2025 were reported in the ARERR as shown below. (ODCM limits are commitments made by PG&E to the NRC for maintaining ALARA principles and are more restrictive than NRC regulatory and Technical Specification limits.)

<u>Effluent Type</u>	<u>Calculated Radiation Dose</u>	<u>ODCM Limit</u>	<u>Percent of Limit</u>
Liquid (total body)	0.000385 millirem	3 millirem	0.013%
Gaseous (gamma)	0.00265 millirem	10 millirad	0.027%
Gaseous (beta)	0.00100 millirem	20 millirad	0.005%

The FFT also noted that the split sampling (for radiological samples) with the California department of public health was a part of DCPD’s REMP. Additionally during 2025, REMP personnel completed an updated Land Use Census, and no changes to the REMP (i.e. sampling locations) were found to be required. The locations of the approximately 60 radiological sampling stations ranged from on site (exclusion fence at 0.1 mile) to as far away as Cambria Moonstone Beach (28.5 miles).

The FFT concluded that results of the 2025 ARERR demonstrated that the doses associated with plant effluent releases were much less than NRC limits. Overall, the liquid and gaseous radioactivity releases from DCPD were well-controlled and maintained as low as reasonably achievable.

2025 Annual Radiological Environmental Operating Report (AREOR)

The AREOR report described the results of the Radiological Environmental Monitoring Program (REMP), which measures and assesses the levels of radiation or radioactivity in the environment related to operation of DCPD and verifies that DCPD operated within its design parameters. The descriptions below represent selected, representative excerpts from the report.

Approximately 275 solid and liquid environmental samples, 884 air samples, and 1440 Thermo-Luminescent Dosimeter (TLD) radiation detectors were collected over the course of the 2025 REMP monitoring period. Approximately 1800 radionuclide analyses were performed on environmental samples. The types of environmental samples collected for this monitoring period included:

- Air, Particulate
- Air, Iodine-131
- Air, Carbon-14
- Direct Radiation
- Milk
- Meat
- Vegetation
- Drinking Water
- Groundwater Monitoring Wells
- Surface Water
- Aquatic Vegetation
- Fish
- Mussels
- Ocean Sediment

The monitoring of ingestion-pathway environmental samples (e.g. milk, meat, fish and invertebrates, aquatic vegetation, food crops), alongside airborne exposure pathways and direct radiation, provides an independent confirmation of environmental impacts predicted from measured effluent releases and offsite-dose calculations (performed per ODCM and documented the ARERR, with historical annual data available on the NRC website). By comparing measured radionuclide concentrations in environmental samples with the calculated impacts of radioactive effluent releases, the program verifies that the public dose assessments and associated food pathway, airborne pathways, and direction radiation analyses remain valid and that plant operations continue to have no significant radiological impact on the public or the environment.

The ambient direct radiation levels in the DCPD offsite environs did not change in 2025 and were within the pre-operational background range. An evaluation of direct radiation measurements indicated that all U.S. Environmental Protection Agency criteria (contained in 40 CFR 190) were met by a large margin. The ambient onsite direct radiation levels within the DCPD plant site boundary near the Independent Spent Fuel Storage Installation (ISFSI) were slightly elevated due to dry cask spent fuel storage. The measurements at the remaining onsite REMP environmental TLD locations were not affected by the ISFSI due to ISFSI topographical elevation and placement within an onsite hillside which provided shielding to the rest of the site. An evaluation of direct radiation measurements and member-of-public occupancy times within the site boundary indicated that all federal criteria for member-of-public dose limits were met by a large margin.

Groundwater isotopic monitoring was conducted in accordance with the Nuclear Energy Institute (NEI) guidance document “Industry Groundwater Protection Initiative,” NEI 07-07, Revision 1, March 2019. During 2025, there were no detectable plant-related radionuclides (including tritium) found in any groundwater samples. It was also noted that studies of the DCPD site groundwater gradient indicated that any subsurface groundwater flow beneath the DCPD power block was not used as a source of drinking water. Due to topography and site characteristics, this groundwater gradient flows naturally into the Pacific Ocean which is approximately 100 yards from the power block.

The results of the 2025 REMP showed no unusual environmental isotopic findings from DCPD site operations. These results were compared to DCPD preoperational isotopic data and showed

no unusual trends. The REMP reported that operation of DCPD continued to have no detectable offsite radiological impact. Samples analyzed from the offsite sampling stations continued to show that DCPD site operations had no significant impact on the health and safety of the public or the environment. The annual offsite radiological dose received by the general public from plant operations was less than one millirem which is insignificant when compared to the 620 millirem average annual radiation exposure to people in the United States from natural and man-made background radiation sources (cosmic, terrestrial, radon, medical, etc.; from AREOR page 5 and US Environmental Protection Agency at www.epa.gov/radiation/radiation-sources-and-doses).

The FFT concluded that the 2025 AREOR demonstrated that the radioactive effluent monitoring program has been conducted in an appropriate manner to ensure the activity released and associated dose to the public has been maintained as low as reasonably achievable. Data contained in the report demonstrated that DCPD continued to have no detectable offsite radiological impact.

Conclusions: The DCPD Radioactive Effluent Release Program and the Radiological Environmental Monitoring Program appeared satisfactory in calculating, monitoring, and measuring the impacts of radioactivity from DCPD on the environment. During 2025, there were no abnormal releases of radioactivity, and data contained in the reports demonstrated that DCPD continued to have no detectable radiological impact to the environment surrounding the plant.

Recommendations to the DCISC or PG&E: None.

3.4 Observe Leadership Alignment Meeting

The DCISC FFT observed a Leadership Alignment Meeting held in the DCPD Canyon Room on July 6, 2026. The Leadership Alignment Meeting was a periodic meeting of all supervisors and above employees at DCPD who gathered to receive presentations from station senior leaders and to facilitate discussions on various station issues. Approximately 125 employees attended the meeting, and this was the DCISC's first observation of this type of meeting.

The meeting was led primarily by the Justin Rogers, Station Senior Director. Following routine safety reviews, Mr. Rogers began the meeting by recognizing employees who had been nominated by their peers or other leaders for exemplary performance. Following the recognition period, he instructed all attendees in the conduct of a "Teaching and Learning" activity. Employees at each table (8 to 10 employees per table) were directed to take 15 minutes to ask leaders from the Maintenance Department to discuss conclusions and lessons they learned from a recent Maintenance Department leadership meeting. Handouts were provided at each table to help facilitate discussions. The FFT observed that the discussions at each table were lively and most attendees appeared to be well engaged with the activity.

Following the Teaching and Learning activity, Mr. Rogers reviewed with leaders what they should be looking for when performing field observations of their employees. Additionally, he reviewed the importance of ensuring that each individual managed their time in a way that focused on the

appropriate priorities for their work. Matt Birkel, Director, Nuclear Training and Accreditation, then led a presentation and discussion on station performance indicators and with a focus on the definition and status of the index for Consequential Events.

Adam Peck, Site Vice President, then addressed concerns from recent employee feedback submissions as well as provided an update on the status of state legislative activities that could affect PG&E. Mr. Peck also covered corporate and station initiatives to reshape the organization to reduce the number of layers of supervision. Lastly, he discussed plans to slowly reduce staff numbers at DCPD through attrition from the current value of 1,167 employees to a target of 1,142 employees by the end of 2026. [These numbers were comparable to information reviewed by the DCISC at its January 2026 Fact-Finding Meeting (Reference 6.8).] Mr. Rogers then closed out the meeting with a discussion about the status of voting on new contracts for union employees.



Dr. Peterson and Mr. McWhorter Observing Leadership Alignment Meeting

The FFT found that a Leadership Alignment Team meeting with all station supervisors and leaders was effectively conducted and allowed opportunities for significant discussion of important topics among all attendees.

Conclusions: A July 6, 2026, Leadership Alignment Team meeting with all station supervisors and leaders was effectively conducted and allowed opportunities for significant discussion of important topics among all attendees.

Recommendations to the DCISC or PG&E: None.

3.5 Condensate and Feedwater System Health

The DCISC FFT met with Bob Waltos, Chief Nuclear Engineering Specialist, for an update on the health of Condensate and Feedwater Systems at DCP. Delphine Hou, Harpreet Bhalla, Deb Luchsinger, and Jerry Bischof from the California Department of Water Resources (DWR) participated remotely in the meeting. The DCISC last reviewed the Condensate System during its September 2019 Fact-finding Meeting (Reference 6.9), when it concluded the following:

DCP's Condensate Systems on both units were healthy, and their health reflected careful attention devoted to those systems during both Unit operation and refueling outages.

And the DCISC last reviewed portions of the Feedwater System during its January 2026 Fact-Finding Meeting (Reference 6.10), when it concluded the following:

A Unit 1 5C Feedwater Heater leak that occurred on December 15, 2025, and the subsequent plant shutdown for repair was well managed by DCP staff. Actions taken in response to a similar event in 2021 appeared generally to have been effective in driving appropriate corrective actions, and DCP will perform a new Cause Evaluation for the 2025 event to gather any needed additional corrective actions. DCP is proceeding with procuring 12 replacement Feedwater Heaters for each unit, and the new equipment will arrive on site in late 2026 and early 2027; however, no plan has yet been approved for installation of the replacement heaters in the units.

The primary purpose of the Condensate System is to condense and collect steam exhausted from the Low-Pressure Turbines and supply water from the Condenser Hotwells to the Main Feedwater (MFW) Pumps at sufficient pressure to satisfy their net positive suction head requirements. Other functions of the Condensate System are to reheat condensate prior to the MFW Pumps (via Feedwater Heaters), supply seal water to pumps and seal joints, and supply Turbine Exhaust Hood spray. The Condensate System is a system that is not nuclear-safety-related and consists of the following major components on each unit:

- Three Main Condensers
- Condenser Air Ejectors
- Condensate Storage Tank
- Three Condensate Pumps
- Three Condensate Booster Pumps
- Fifteen Feedwater Heaters

The primary purpose of the Feedwater System is to supply water from the Condensate System to the Steam Generators and to control levels in each of the four Steam Generators. The Feedwater System is a system that is part non-nuclear safety related and part nuclear safety related. Specifically, small portions of the Feedwater System going to the Steam Generators were classified as nuclear safety related, beginning at the point where the Auxiliary Feedwater System ties into the Feedwater piping just outside of the Containment Building. Otherwise, the majority of the Feedwater System and all of the Condensate System were classified as non-nuclear safety related. The systems consisted of the following major components on each unit:

- Two Turbine-Driven Main Feedwater Pumps
- One Electric Driven Feedwater Pump (used for startup and shutdown)
- Main Feedwater Regulating Valves and Bypass Valves (for supplying water to and controlling levels in the Steam Generators)
- Three Main Condensate Pumps
- Three Condensate Booster Pumps
- 18 Feedwater Heaters

Although most of the systems were classified as non-nuclear safety related, the systems were both considered a Tier 1 system within the System Engineering Department due to their classifications as a “Top Industry Scram Vulnerable System.” The FFT were provided with and reviewed the System Health Reports for the Condensate and Feedwater Systems on both units. The health of the Condensate Systems for both units was rated as “White” (acceptable, with improvements in progress), and the health of the Feedwater Systems for both units was rated as “Green” (healthy).

Mr. Waltos reviewed the equipment issues that were driving the Condensate System health indicator to be White. Although the Main Condensers were generally performing well, a small tube leak of seawater into the condenser which occurred and was later repaired during the previous operating cycle on Unit 1. At the time of the FFT’s meetings, seawater leakage into the condensers was 0.02 Gallons Per Day (GPD) on Unit 1 and 0.04 GPD on Unit 2, the amounts of which were considered good performance. In response to the FFT’s questions, Mr. Waltos reported that the condensers were retubed with titanium tubes early in plant life, and that the titanium tubes generally have performed very well. Tube leaks were most often the result of steam flow erosion or flow-induced vibrations in certain areas inside the condenser where steam shrouds failed to fully protect the condenser tubes for various reasons. Following the passage of SB846 and the authorization for extended operations in 2022, DCPD considered initiating a project to retube the Main Condensers but chose instead to mitigate the possibility of tube failures by the use of tube sheet coatings, enhanced non-destructive testing and preventive tube plugging during outages, and cathodic protection systems. The FFT inquired about the current margins available for future tube plugging in the condensers, and Mr. Waltos reported that currently, about 4 to 5 percent of tubes were plugged with an allowable value of 10 percent plugging allowed by current design basis analyses. Replacements of the Main Condenser to Low-Pressure Turbine Expansion Joints were completed on both units during recent outages, and condenser air in-leakage values were low on both units.

Regarding the health of pumps in the systems, Condensate Pumps and Main Feedwater Pumps were performing well with no major problems. Several Condensate Booster Pumps had issues with high vibrations which was caused by corrosion of the baseplates which subsequently reduced the force holding the pumps in place. Baseplates had been reworked and repaired on about half of the six Condensate Booster Pumps with the remaining needed repairs scheduled for repair during future outages.

During the discussion about Main Condensers, the FFT asked what PG&E may have done to consider the possible effects of rising ocean temperatures on DCPD operations, and PG&E provided additional information following the FFT meetings. PG&E reported that in 2025, DCPD

conducted a Climate Vulnerability Assessment in response to the Institute for Nuclear Operations Guidance Document, INPO 24-002, Climate Vulnerability Assessment, published in 2024. A part of the outcome of the assessment was the generation of a DCPD-specific Climate Hazard Information and Projections Report which projected environmental condition changes over the next ten years and how they could potentially impact operations. Details of the results of the report were not provided during this meeting, and the FFT recommends that the DCISC should follow-up to review the results of DCPD's Climate Vulnerability Assessment and the associated Climate Hazard Information and Projections Report during a future Fact-Finding Meeting.

The FFT concluded that DCPD's Condensate and Feedwater Systems were healthy on both units with no major issues affecting operations. The FFT did not review the status of aging Feedwater Heaters during this meeting as that topic was recently discussed during the DCISC's January 2026 Fact-Finding Meetings (Reference 6.10).

Conclusions: DCPD's Condensate and Feedwater Systems on both units were healthy with no major issues affecting operations (other than aging Feedwater Heaters).

Recommendation to the DCISC: The DCISC should review the results of DCPD's 2025 Climate Vulnerability Assessment and the associated Climate Hazard Information and Projections Report during a future Fact-Finding Meeting. (D7/6/26FF-3.5)

Recommendations to PG&E: None.

3.6 Station Update

The DCISC FFT met with Justin Rogers, Station Senior Director, for a Station Update. The DCISC last received a Station Update during its May 2026 Fact-Finding Meeting (Reference 6.11), when it concluded the following:

DCPD's update on recent station activities was informative, and no new major issues were identified.

Mr. Rogers reported that both units had run at full power and without any major equipment issues since the last update to the DCISC. The FFT also discussed the following topics with Mr. Rogers:

- The previous day's Leadership Alignment Meeting
- The status of the Institute for Nuclear Power Operation's Reliability and Safety Indicator for DCPD
- The status of the Cause Evaluation for a Startup Transformer 2-1 Bus Duct Failure that occurred in May 2026 (expected to have final review and approval in late July)
- Preparations taken to assure high reliability for the summer peak generation period

- Refueling Outage 1R26 preparations (scheduled to begin in October 2026)
- The Maintenance Department’s current focus on supervisory observations of work in the field
- Recent Engineering staff losses
- Possible future changes to NRC regulations

The FFT found that the update on recent station activities was informative.

Conclusion: DCP’s update on recent station activities was informative, and no new major issues were identified.

Recommendation to the DCISC or PG&E: None.

3.7 Reactor Vessel Embrittlement Sample Capsule B Report

The DCISC FFT received a briefing on the report generated from testing and evaluation of Unit 1 Reactor Vessel Embrittlement Sample Capsule B (the “Capsule B Report,” Reference 6.12) which was removed from the vessel on April 21, 2025. In addition to the FFT, the following attended the briefing:

- DCISC consultants Mark Kirk, Andy Kadak, Lisa Darden, and Richard St. Onge along with DCISC Counsel Robert Rathie.
- Department of Water Resources staff Delphine Hou and Harpreet Bhalla along with consultants Deb Luchsinger and Jerry Bischof.
- PG&E staff members Blair Jones, Vice President Business and Technical Services; Tom Jones, Regulatory, Environmental and Repurposing Senior Director; Philippe Soenen, Strategic Initiatives, Performance Improvement and Organizational Effectiveness Director; Carina Corral, Strategic Engagement Manager, Communications and DCISC Liaison; and Michelle Olsofsky, License Renewal Engineer.
- Westinghouse staff members Brian Hall, Michael Frances, Karina Assis, Margret Long, and Andy Hawk.

The DCISC last reviewed the status of Capsule B’s analysis during its April 2026 Fact-Finding Meeting (Reference 6.13), when it concluded the following:

PG&E reported that the testing and evaluations for materials removed from Unit 1 Reactor Vessel Sample Capsule B were delayed but continued to be in progress. Results were expected to be finalized and made available to both the DCISC and

the public in the third quarter of 2026.

Additionally, in the DCISC's 34th Annual Report (Reference 6.14), the following recommendation was opened:

Recognizing that Capsule B test results are not necessary to assure Unit 1 Reactor Pressure Vessel embrittlement acceptability, the DCISC recommends that the Capsule B be removed at the next outage in 2025 and that a re-evaluation of reactor vessel integrity, including both PTS and USE, be performed once the new data from Capsule B become available. (AR23/24AR23-2)

The following topics covered by the Capsule B Report were discussed in this briefing:

- Numbers and composition of material samples tested and the test results
- Dosimetry (fluence) and thermal data for the sample capsule
- Data creditability (as defined by NRC regulations)
- Consistency of the results with previous tests and evaluations

PG&E staff concluded that the results of the Capsule B Report confirmed that Unit 1 continues to meet NRC requirements for Reactor Vessel integrity and remains safe for at least 60 years of operation. Also, the results were consistent with the conclusions contained in the NRC's June 2025 License Renewal Safety Evaluation Report (Reference 6.15) and the existing Reactor Vessel integrity analysis of record (Reference 6.16). A copy of PG&E's presentation materials for this briefing is included as Enclosure 1 in this report.

Following the briefing on July 7, the FFT learned of an article in the San Luis Obispo Tribune quoting an NRC spokesperson as saying that the NRC would be reviewing the Capsule B Report and publishing the results of its review by October 1. The FFT inquired with PG&E about the NRC's plans, and PGE responded stating, "PG&E confirmed NRC's receipt of the submittal. NRC plans to document their independent review in a letter-to-file. PG&E will continue to have conversations with NRC to understand the mechanism for making the letter-to-file public and the associated timeframe. PG&E confirmed with the NRC license renewal (LR) project manager that they do not currently plan to update the LR safety evaluation report (SER) with the WCAP-19173-NP Revision 0 [the Capsule B Report] results since the SER is bounding." Should the NRC issue an evaluation of the Capsule B Report, the FFT expected that the DCISC would review its content under its open recommendation AR23/24AR23-2 (as described above and below).

The DCISC will continue to perform its own reviews of the test results, which will be further discussed at its October 2026 Public Meeting.

Conclusion: DCPD presented the results of testing and evaluation of material specimens contained in Reactor Vessel Embrittlement Sample Capsule B, which was removed from the vessel on April 21, 2025. PG&E staff concluded that the results confirmed that Unit 1

continues to meet NRC requirements for Reactor Vessel integrity and remains safe for at least 60 years of operation. The DCISC will continue to perform its own reviews of the test results which will be further discussed at its October 2026 Public Meeting.

Recommendations to the DCISC: None

Recommendations to PG&E: The following previous recommendation to PG&E was reviewed in this Fact-Finding Meeting and remains open: *Recognizing that Capsule B test results are not necessary to assure Unit 1 Reactor Pressure Vessel embrittlement acceptability, the DCISC recommends that the Capsule B be removed at the next outage in 2025 and that a re-evaluation of reactor vessel integrity, including both PTS and USE, be performed once the new data from Capsule B become available.* (AR23/24AR23-2)

3.8 **Meet with DCPD Officer**

The DCISC FFT met with Paula Gerfen, Senior Vice President Business and Chief Nuclear Officer, for a general update. The DCISC last met with a DCPD officer during its May 2026 Fact-Finding Meeting (Reference 6.17), when it concluded the following:

The regular meetings with DCPD Officers and Directors continue to be beneficial for both organizations.

The participants discussed the current meeting agenda items and other items of mutual interest.

Conclusions: The regular meetings with DCPD Officers and Directors continued to be beneficial for both organizations.

Recommendations to PG&E or DCISC: None.

3.9 **Fire Protection Program and System Health**

The DCISC FFT met with Bob Waltos, Chief Nuclear Engineering Specialist, to review the status of the Fire Protection Program and Fire Protection Systems at DCPD. The DCISC last reviewed the Fire Protection Program and Systems in April 2023 (Reference 6.18), when it concluded the following:

DCPD's Fire Protection Program and Fire Protection Systems were in good health overall. Minor equipment issues were being appropriately tracked for resolution.

Mr. Waltos provided the FFT with a copy of the Fire Protection Program Health Report. The Health Report showed Green (Healthy) performance overall for the four quarters ending in March 2026. The Health Report reported the following ratings by major program categories:

- Program Personnel – Green (Healthy) overall with one White (Needing Improvement) subcategory due to the Program Engineer, Training Coordinator, and Fire Chief being in their position less than three years.
- Program Infrastructure – Green overall and in all subcategories.
- Program Implementation – Green overall and in all subcategories.
- Equipment Performance – White overall with one White subcategory due to a high backlog of maintenance work orders older than 24 months and one Yellow (Deficient) subcategory due a Fire Protection System Impairment that was older than 180 days (discussed below).

The Program Health Report reported information on paths forward to resolve the above deficiencies as well as the fact that the program was last presented to the Plant Health Committee for their review in August 2025. Regarding the high backlog of maintenance work orders, the FFT requested and were provided with a list of all the open Notifications (23) for Fire Protection Systems that were classified as “DA” (equipment conditions categorized as “adverse to quality”) as well as copies of the applicable Notifications. The FFT reviewed the list and discussed its status with Mr. Waltos. It was found that only a small number (about six) of the items classified as DA were actual equipment problems with the remainder being drawing discrepancies, procedural deficiencies, procurement problems, and other miscellaneous issues. The FFT discussed two equipment problems of particular interest which were the identification that a fire system control panel was not correctly secured in accordance with the station’s Cyber Security Program (Notification 51826970) and a firewater leak that occurred at the Intake Structure (Notification 51312062). Neither were found to be indicative of larger issues in the maintenance of Fire Protection Systems.

Mr. Waltos also explained that the one Fire Protection System impairment (Notification 51271282) which was older than 180 days consisted of a problem with an older control system for the Halon gaseous fire suppression system located in an area housing computer systems on the sixth floor of the Administration Building. (Impairments are deviations from the design basis configurations for Fire Protection Systems.) Parts for repairing the control system were no longer available, and a design change was in progress to replace the control system with newer equipment. The estimated completion date for this change was the fourth quarter of 2026.

In response to the FFT’s questions, Mr. Waltos reported that the station had no long-term fire watches being used as compensatory actions for out-of-service equipment. He also reported that fire doors were generally in good condition with no open deficiencies. Fire water systems were also generally in good condition with most Post Indicating Valves operating correctly and flushes being performed quarterly on major sections of the Fire Protection water supply loop. The FFT concluded that the Fire Protection Program and Systems were in excellent health overall.

Conclusions: DCP’s Fire Protection Program and Fire Protection Systems were in excellent health overall. Minor equipment issues were being appropriately tracked for resolution.

Recommendations to the DCISC or PG&E: None.

3.10 Safety-Related Fuse Failure

The DCISC FFT requested an update on an event that occurred in July 2025 when a safety-related fuse blew in the Eagle 21 Protection System. This was in follow-up to a discussion between the DCISC and PG&E staff at the DCISC's February 2026 Public Meeting (DCISC Open Items List number 2/26PM#2). This was the DCISC's first review of this matter.

The subject event was originally discussed in the context of an NRC Non-Cited Violation (NCV) that was included in the NRC's Integrated Inspection Report for the fourth quarter of 2025 (Reference 6.19). The NRC cited PG&E for "failing to establish and implement a preventive maintenance strategy for safety-related fuse FU-2213 after removing the fuse replacement frequency from an already established preventive maintenance strategy. Specifically, the licensee removed the previously in place 4-year fuse replacement interval from maintenance plan 19782 and failed to establish a new maintenance plan for the fuse. Subsequently, the fuse failed and tripped all bistables associated with protection set II of the Eagle 21 system."

In its written response to the FFT's inquiry, PG&E provided a copy of the Notification (SAPN 51292817) that was generated in response to the event and the NRC NCV. The FFT reviewed the Notification and found that the failure (blown fuse) was attributable to age-related degradation that occurred because an appropriate preventive maintenance interval was not maintained for testing or replacing the fuses. Investigations found that the fuse had not been tested or replaced since 2009 (16 years). A previous maintenance interval for periodic replacements of every four years was deemed to be unnecessary based on industry failure data, and plans were initiated to change the interval to every ten years; however, the station failed to fully process and implement the associated Preventive Maintenance Change Request (PMCR) and the associated 10-year maintenance plans were never initiated. The failure to implement an appropriate fuse maintenance strategy was limited to specific portions of the Eagle 21 system, referred to as the "PY Panels." As a part of corrective actions, DCPD initiated a new PMCR to reinstate the preventive maintenance strategy for replacements every ten years for the PY Panels. Associated work orders were initiated to identify and replace all similar fuses older than ten years as soon as plant conditions permitted. The FFT concluded that the actions taken by DCPD in response to the event and the subsequent NRC NCV were appropriate and no further action was warranted.

Conclusion: DCPD appropriately investigated and responded to a July 2025 event in which a safety-related fuse failed in the Eagle 21 Protection System.

Recommendations to the DCISC or PG&E: None.

3.11 Observe Nuclear Safety Oversight Committee Meeting (Remote)

(Because of its privacy agreement with DCPD, the DCISC cannot share information regarding the details of the NSOC evaluation or subsequent corrective actions.)

On August 13, 2026, the DCISC FFT along with DCISC consultant Richard St. Onge remotely observed the Nuclear Safety Oversight Committee (NSOC) exit meeting. The DCISC last observed an NSOC exit meeting during its December 2, 2025, Fact-Finding Meeting (Reference 6.20), when it concluded the following:

The DCPD Nuclear Safety Oversight Committee appeared to be thorough and comprehensive in their evaluations and candid in their reports. PG&E's robust engagement with NSOC was commendable.

The NSOC is a committee of five executive-level, external industry peers who are selected and appointed by DCPD's Chief Nuclear Officer and have sufficient expertise to satisfy the applicable requirements of American Standards Institute/American Nuclear Society Standard 3.1, "Selection, Qualification and Training of Personnel for Nuclear Power Plants." Its purpose is to advise the Chief Nuclear Officer and the site leadership team on nuclear safety policy and to provide an independent perspective on plant performance. The NSOC typically visits DCPD three times per year for four days each. The first three days are usually spent in the plant interviewing personnel, observing activities, and reviewing records. The exit meeting is then typically held on NSOC's fourth day of meetings for the purpose of reporting the NSOC's conclusions to the Chief Nuclear Officer and the site leadership team.

The NSOC Chairperson began the meeting by commending PG&E for their transparency and openness with the NSOC members. The NSOC members appeared thorough in their evaluations and candid in their reports. The FFT observed that several of the NSOC's findings provided unique and valuable perspectives on station performance, and the NSOC strove to focus on providing clarity towards possible actions to be taken by PG&E to drive improvement. The FFT observed that PG&E was welcoming of the critique and identification of areas of improvement, and PG&E's robust engagement with NSOC was commendable.

Conclusion: The DCPD Nuclear Safety Oversight Committee appeared to be thorough and comprehensive in their evaluations and candid in their reports.

Recommendations for the DCISC or PG&E: None.

4.0 CONCLUSIONS

- 4.1 The corrective actions completed by DCPD in response to two Control Rod drop events were appropriate, and suitable long-term corrective actions were initiated.**
- 4.2 The DCISC found that PG&E's planning for upcoming major plant projects was being effectively managed and projects important to safety were being pursued for implementation.**
- 4.3 The DCPD Radioactive Effluent Release Program and the Radiological Environmental Monitoring Program appeared satisfactory in calculating,**

monitoring, and measuring the impacts of radioactivity from DCPD on the environment. During 2025, there were no abnormal releases of radioactivity, and data contained in the reports demonstrated that DCPD continued to have no detectable radiological impact to the environment surrounding the plant.

- 4.4 A July 6, 2026, Leadership Alignment Team meeting with all station supervisors and leaders was effectively conducted and allowed opportunities for significant discussion of important topics among all attendees.
- 4.5 DCPD's Condensate and Feedwater Systems on both units were healthy with no major issues affecting operations (other than aging Feedwater Heaters).
- 4.6 DCPD's update on recent station activities was informative, and no new major issues were identified.
- 4.7 DCPD presented the results of testing and evaluation of material specimens contained in Reactor Vessel Embrittlement Sample Capsule B, which was removed from the vessel on April 21, 2025. PG&E staff concluded that the results confirmed that Unit 1 continues to meet NRC requirements for Reactor Vessel integrity and remains safe for at least 60 years of operation. The DCISC will continue to perform its own reviews of the test results which will be further discussed at its October 2026 Public Meeting.
- 4.8 The regular meetings with DCPD Officers and Directors continued to be beneficial for both organizations.
- 4.9 DCPD's Fire Protection Program and Fire Protection Systems were in excellent health overall. Minor equipment issues were being appropriately tracked for resolution.
- 4.10 DCPD appropriately investigated and responded to a July 2025 event in which a safety-related fuse failed in the Eagle 21 Protection System.
- 4.11 The DCPD Nuclear Safety Oversight Committee appeared to be thorough and comprehensive in their evaluations and candid in their reports.

5.0 RECOMMENDATIONS

Recommendations to the DCISC:

- 5.1 The following previous recommendation to the DCISC was reviewed in this Fact-Finding Meeting (Section 3.1) and is recommended for closure: *The DCISC should follow up on future corrective actions that may be initiated in response to an August 2024 dropped rod event. (D11/24FF-3.13)*

- 5.2 The DCISC should review current practices and recent results for the surveillance testing of Control Rod Drive Mechanisms during a future Fact-Finding Meeting. (D7/6/26FF-3.1)
- 5.3 The following previous recommendation to the DCISC was reviewed in this Fact-Finding Meeting (Section 3.2) and remains open: *The DCISC should continue to follow and support DCP's plans for future Feedwater Heater replacements. (D4/26FF-3.10A)*
- 5.4 The DCISC should review the results of DCP's 2025 Climate Vulnerability Assessment and the associated Climate Hazard Information and Projections report during a future Fact-Finding Meeting. (D7/6/26FF-3.5)

Recommendations to PG&E:

- 5.5 The following previous recommendation to PG&E was reviewed in this Fact-Finding Meeting (Section 3.7) and remains open: *Recognizing that Capsule B test results are not necessary to assure Unit 1 Reactor Pressure Vessel embrittlement acceptability, the DCISC recommends that the Capsule B be removed at the next outage in 2025 and that a re-evaluation of reactor vessel integrity, including both PTS and USE, be performed once the new data from Capsule B become available. (AR23/24AR23-2)*

6.0 REFERENCES

- 6.1 "Diablo Canyon Independent Safety Committee Thirty-Fifth Annual Report on the Safety of Diablo Canyon Nuclear Power Plant Operations, July 1, 2024 – June 30, 2025," Approved October 23, 2025, Volume II, Exhibit D.4, Section 3.13, "Causes and Corrective Actions for Dropped Control Rod Event."
- 6.2 Ibid., Exhibit D.6, Section 3.4, "Major Project Planning Update."
- 6.3 "Diablo Canyon Independent Safety Committee Thirty-Sixth Annual Report on the Safety of Diablo Canyon Nuclear Power Plant Operations, July 1, 2025 – June 30, 2026," Scheduled for approval at the October 21, 2026, DCISC Public Meeting, Volume II, Exhibit D.8, Section 3.10, "Results of Unit 1 Feedwater Heater Failure Cause Evaluation."
- 6.4 "2025 Annual Radioactive Effluent Release Report," submitted to the Nuclear Regulatory Commission as an attachment to PG&E letter DCL-26-023, April 29, 2026, NRC ADAMS Accession Number ML26119A890.
- 6.5 "2025 Annual Radiological Environmental Operating Report," submitted to the Nuclear Regulatory Commission as an attachment to PG&E letter DCL-26-025, April 28, 2026, NRC ADAMS Accession Number ML26118B592.
- 6.6 "Diablo Canyon Independent Safety Committee Thirty-Sixth Annual Report on the Safety of Diablo Canyon Nuclear Power Plant Operations, July 1, 2025 – June 30, 2026,"

Scheduled for approval at the October 21, 2026, DCISC Public Meeting, Volume II, Exhibit D.1, Section 3.7, “Reports on 2024 Radiation Releases and Radioactive Environmental Monitoring.”

- 6.7 “Regulatory Guide 1.21, Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water Nuclear Power Plants,” Revision 1, June 1974, Appendix B, “Effluent and Waste Disposal Report,” U.S. Nuclear Regulatory Commission, NRC ADAMS Accession Number ML003739960.
- 6.8 “Diablo Canyon Independent Safety Committee Thirty-Sixth Annual Report on the Safety of Diablo Canyon Nuclear Power Plant Operations, July 1, 2025 – June 30, 2026,” Scheduled for approval at the October 21, 2026, DCISC Public Meeting, Volume II, Exhibit D.6, Section 3.11, “Staffing Update.”
- 6.9 “Diablo Canyon Independent Safety Committee Thirtieth Annual Report on the Safety of Diablo Canyon Nuclear Power Plant Operations, July 1, 2019 – June 30, 2020”, Approved October 29, 2020, Volume II, Exhibit D.3, Section 3.8, “Condensate System.”
- 6.10 “Diablo Canyon Independent Safety Committee Thirty-Sixth Annual Report on the Safety of Diablo Canyon Nuclear Power Plant Operations, July 1, 2025 – June 30, 2026,” Scheduled for approval at the October 21, 2026, DCISC Public Meeting, Volume II, Exhibit D.6, Section 3.1, “Unit 1 Feedwater Heater Leak and Plant Shutdown for Repair.”
- 6.11 “Diablo Canyon Independent Safety Committee Thirty-Sixth Annual Report on the Safety of Diablo Canyon Nuclear Power Plant Operations, July 1, 2025 – June 30, 2026,” Scheduled for approval at the October 21, 2026, DCISC Public Meeting, Volume II, Exhibit D.9, Section 3.3, “Station Update.”
- 6.12 “Analysis of Capsule B from the Pacific Gas and Electric Company Diablo Canyon Unit 1 Reactor Vessel Radiation Surveillance Program,” WCAP-19173-NP, Revision 0, June 2026, submitted to the Nuclear Regulatory Commission as an attachment to PG&E letter DCL-26-046, June 29, 2026, NRC ADAMS Accession Number ML26180A296.
- 6.13 “Diablo Canyon Independent Safety Committee Thirty-Sixth Annual Report on the Safety of Diablo Canyon Nuclear Power Plant Operations, July 1, 2025 – June 30, 2026,” Scheduled for approval at the October 21, 2026, DCISC Public Meeting, Volume II, Exhibit D.8, Section 3.12, “Reactor Vessel Embrittlement Sample Capsule B Update.”
- 6.14 “Diablo Canyon Independent Safety Committee Thirty-Fourth Annual Report on the Safety of Diablo Canyon Nuclear Power Plant Operations, July 1, 2023 – June 30, 2024,” Approved October 10, 2024, Executive Summary, Recommendations, “PG&E Recommendation No. 23-2.”

- 6.15 “Safety Evaluation Related to the License Renewal of Diablo Canyon Nuclear Power Plant, Units 1 and 2,” June 2025, U.S. Nuclear Regulatory Commission, NRC ADAMS Accession Number ML25153A508.
- 6.16 “WCAP-18924-NP, Diablo Canyon Units 1 and 2 Initial License Renewal: Time-Limited Aging Analyses (TLAAs) on Reactor Vessel Integrity (RVI),” Revision 0, August 2024, submitted to the Nuclear Regulatory Commission as Enclosure 5 to PG&E letter DCL-24-092, October 14, 2024, NRC ADAMS Accession Number ML24289A118.
- 6.17 “Diablo Canyon Independent Safety Committee Thirty-Sixth Annual Report on the Safety of Diablo Canyon Nuclear Power Plant Operations, July 1, 2025 – June 30, 2026,” Scheduled for approval at the October 21, 2026, DCISC Public Meeting, Volume II, Exhibit D.9, Section 3.2, “Meet with DCPD Officer.”
- 6.18 “Diablo Canyon Independent Safety Committee Thirty-Third Annual Report on the Safety of Diablo Canyon Nuclear Power Plant Operations, July 1, 2022 – June 30, 2023,” Approved September 13, 2023, Volume II, Exhibit D.9, Section 3.5, “Fire Protection Program and Systems.”
- 6.19 “Diablo Canyon Power Plant, Units 1 and 2 – Integrated Inspection Report 05000275/2025003 and 05000323/2025003,” U.S. Nuclear Regulatory Commission letter to Ms. Paula A. Gerfen, dated December 18, 2025, NRC ADAMS Accession Number ML25350C095.
- 6.20 “Diablo Canyon Independent Safety Committee Thirty-Sixth Annual Report on the Safety of Diablo Canyon Nuclear Power Plant Operations, July 1, 2025 – June 30, 2026,” Scheduled for approval at the October 21, 2026, DCISC Public Meeting, Volume II, Exhibit D.4, Section 3.15, “Observe Nuclear Safety Oversight Committee Meeting (Remote).”

PG&E Presentation Slides from July 7, 2026, Briefing on Sample Capsule B Test Results

DCPP Unit 1 Capsule B Testing and Analysis

Results Briefing to DCISC

June 30 - July 7, 2026



Together, Building
a Better California



Summary

- Westinghouse performed extensive testing on Surveillance Capsule B per NRC requirements and guidance
- Results further confirm Unit 1 continues to meet Federal reactor vessel integrity requirements and remains safe for at least 60 years of operation
- Results support NRC's previous June 2025 License Renewal Safety Evaluation Report conclusions and the existing reactor vessel integrity analysis of record
- Results documented in non-proprietary report WCAP-19173-NP and submitted to NRC on June 29, 2026

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PG&E Presentation Slides from July 7, 2026, Briefing on Sample Capsule B Test Results (continued)



Comparison to WCAP-18924-NP

- **WCAP-18924** is the reactor vessel integrity analysis of record
 - Cited in NRC's License Renewal Safety Evaluation Report
 - Previously evaluated by DCISC
 - Referred to as the "previous analysis" in these slides
- Previous analysis **conclusions remain valid** when considering Capsule B results:
 - No change in credibility conclusions (i.e., results follow expected trends)
 - Neutron fluence projections roughly equate to those in previous analysis
 - RT_{PTS} inputs are bounding or equal to previous analysis (e.g., increase in the average Charpy V-notch 30 ft-lb temperature [ΔRT_{NDT}], margin term [M], unirradiated RT_{NDT} , etc.)
 - Upper Shelf Energy (USE) inputs are bounding or equal to previous analysis (e.g., copper content, 1/4T fluence at 54 EFPY, unirradiated USE)

EFPY = Effective Full Power Years

Public

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Credibility Evaluation

- Evaluated per the five criteria from Regulatory Guide (RG) 1.99, Rev 2: **no change to conclusions since previous analysis**
 - Credible for weld heat # 27204/flux Linde 1092 (used in the Intermediate & Lower Shell Longitudinal Welds 2/3-442A, B, C)
 - Includes use of Palisades "sister plant" data (same heat #/flux)

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PG&E Presentation Slides from July 7, 2026, Briefing on Sample Capsule B Test Results (continued)



Neutron Fluence

- **Capsule B exposure equivalent:** $3.62 \text{ E}19 \text{ n/cm}^2$
 - ✓ Within 1-2 times (~1.7 times) the peak vessel fluence expected at 60 years (range $2.14 - 4.28 \text{ E}19 \text{ n/cm}^2$), per NUREG-1801, Rev. 2, XI.M31
- **Projection Methodology:** satisfies the requirements set forth in RG 1.190, Rev 0
 - ✓ Approved by the NRC; described in WCAP-18124-NP-A and WCAP-18124-NP-A, Rev 0, Supplement 1-NP-A
- **Limiting Fast Neutron Fluence Beltline Results at 54 EFPY (60 years):**
same limiting locations as previous analysis

Public

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Key Takeaways

- Report (WCAP-19173-NP) satisfies NRC surveillance capsule withdrawal and testing requirements
- Comprehensive report shared with DCISC for review
- Surveillance capsule withdrawal and testing actions are satisfied for license renewal
- Ongoing dosimetry monitoring and periodic reactor vessel inspections continue through the 20-year renewed license period
- Both Units 1 and 2 are safe for at least 60 years of operations

Public

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