

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

Report on

Fact-Finding Meeting at DCP on August 21 and 22, 2024

by

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1.0 SUMMARY

The results of the DCISC August 21 and 22, 2024, 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. Plant Design and Major System Functions
2. Site Area Tour
3. Probabilistic Risk Assessment Program
4. Station Organization and Major Programs
5. Meet with NRC Senior Resident Inspector
6. Corrective Action Program and Human Performance
7. Lunch with Senior Leadership Team
8. License Renewal Application
9. Plant Tour

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 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 team'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 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 Plant Design and Major System Functions

The DCISC FFT met with Allen Wilson, Senior Director, Engineering, Projects and Outages; Michael Jackson, Director, Engineering Services; and Dan McBride, Operations Services Director, to receive an overview of DCP's plant design and the functions of major systems. This topic was requested to assist the DCISC's newest Member, Dr. Meshkati, in becoming familiar with DCP's physical plant and organization. This was the DCISC's first meeting on this topic.

The major systems reviewed in this meeting included the following:

- Reactor Coolant System
- Chemical and Volume Control System
- Emergency Core Cooling Systems and Testing
- Containment Systems
- Auxiliary Feedwater System
- Secondary Systems, including future replacements of High-Pressure Turbines and Feedwater Heaters
- Process Control and Reactor Protection Systems
- Emergency Diesel Generators
- Electrical Distribution Systems

Conclusions: DCP provided a briefing on the design and functions of major systems at the station as an orientation to new DCISC Member, Dr. Meshkati.

Recommendations: None.

3.2 Site Area Tour

The DCISC FFT met with Tom Jones, Senior Director, Regulatory, Licensing and Repurposing; Philippe Soenen, Strategic Initiatives Director; Trevor Revel, Environmental Permitting Manager; and Steve Pengilley, Nuclear Environmental Services Supervisor, for a tour of DCP site areas outside of the plant Protected Area. The DCISC last toured site areas during its August 2023 Fact-Finding Meeting (Reference 6.1) when it concluded the following:

The DCISC Fact-Finding Team toured the DCP Intake Structure and observed that equipment was in good condition, except for a non-safety Circulating Water Pump seal leak, which was being managed.

At the request of the FFT, Mr. Jones guided the team in touring the following site areas:

- Intake Cove, including a briefing on breakwater and Intake Structure design
- Fire Department Building
- FLEX equipment storage areas
- Independent Spent Fuel Storage Installation
- Old Steam Generator Storage Facility
- 500kV and 230kV Switchyards
- Control Room Simulator

Overall, the FFT found that all observed areas were clean, orderly, and in good condition.



FFT at Intake Cove

Conclusions: The DCISC Fact-Finding Team toured various DCPD areas outside of the Protected Area and found that all observed equipment areas were in good condition.

Recommendations: None

3.3 Probabilistic Risk Assessment Program

The DCISC FFT met with Jordan Tyman, Manager of Risk and Cyber Security; Brian Galvin, Risk Management Manager (participating remotely); Nathan Barber, Probabilistic Risk Assessment (PRA) Supervisor; and Jim Morris, Regulatory Services Manager, for an update on

the status of the station's PRA program. The DCISC last reviewed the PRA Program during its November 2023 Fact-Finding Meeting (Reference 6.2), when it concluded the following:

The DCPD Probabilistic Risk Assessment (PRA) group's work today is emphasizing the support of various PRA applications. One major task in the past year has been supporting license extension (including both severe accident analysis and aging management). Other applications support internal plant operational needs, such as the impacts on safety of equipment removal from service. The use of the PRA for these purposes continues effectively. The DCISC Fact-finding Team concludes that the PRA group is doing excellent work.

Messrs. Tyman and Barber provided the FFT with an overview of the history of the PRA Program at DCPD. DCPD first developed a Seismic PRA during its initial licensing in 1988 and as a part of its Long-Term Seismic Program. Later, the Individual Plant Examination (for internal events) was developed followed by the Individual Plant Examination for External Events. Lastly, an evaluation for internal fires was added as a part of the plant's transition to a Fire Protection Program based on the National Fire Protection Association (NFPA) 805 Standard. As a result, the current PRA model includes hazards from seismic, fire, internal flooding, and internal events. The FFT inquired regarding how tsunami hazards were addressed, and Mr. Barber reported that tsunami hazards were covered as a part of the external events evaluation in 2019.

Mr. Barber briefed the FFT on the current PRA Program activities underway at DCPD which included:

- PRA model updates to incorporate changes to plant design, procedures and methodology. The next update was scheduled to be completed in 2025.
- Supporting applications for the use of risk informed programs (discussed below).
- Converting the PRA analysis software from "Riskman" to "CAFTA" (Computer Aided Fault Tree Analysis).
- Updating fire modeling methodologies.

Messrs. Tyman and Morris briefed the FFT on current risk-informed program changes being implemented using PRA methods and analyses through License Amendment Requests (LARs) which included:

- Risk-Informed Completion Times
- Risk-Informed Surveillance Frequency Control Program
- Mode Change Risk Evaluations
- Missed Surveillance Discovery Responses
- Risk-Informed In-Service Inspections
- Supporting the NFPA-805 Fire Protection Program
- Supporting Maintenance Rule (a)(4) Online Risk Assessments
- Risk-Informed Categorization of Systems, Structures and Components

The discussions on the above applications prompted additional discussions about the definitions of Operating Modes for the station and usage of the plant's Technical Specifications. Additionally,

the FFT inquired about and received an explanation of a poster displayed around the plant regarding the applicability and use of PRA insights for plant operations.

Lastly, the FFT inquired regarding the effect of extended operations on PRA Programs. Mr. Barber explained that many of the activities discussed above would not have occurred without the proposal to extend operations. Specifically, converting the PRA analysis software and several of the applications being pursued through LARs would not have been implemented if plant operations had ceased at the end of the current operating license. Additionally, most of the PRA group had previously been transitioning into roles supporting other non-nuclear parts of the company but now were adopting roles that supported both nuclear and non-nuclear operations. For example, PRA Program personnel were now on a regular basis supporting both the nuclear station PRA activities and wildfire risk management for other parts of the company.

Conclusions: DCP's Probabilistic Risk Assessment (PRA) Program was emphasizing the development of various PRA applications to support extended plant operations, and the program continued to provide excellent support for enhancing the safety of plant operations.

Recommendations: None.

3.4 Station Organization and Major Programs

The DCISC FFT met with Tom Jones, Senior Director, Regulatory, Licensing and Repurposing, and Justin Rogers, Station Director, to receive an overview of DCP's organization, the functions of its major departments and programs, and its relationship to other corporate entities. This special topic was requested to assist the DCISC's newest Member, Dr. Meshkati, in becoming familiar with DCP's organization and programs. This was the DCISC's first meeting on this topic.

The items discussed in this meeting included the following:

- Station organization and leadership team
- Current staffing (1287 station employees)
- Corporate organization and governance
- Authorities for making decisions related to plant operations and maintenance
- Budgets and funding for station operations and projects
- Impacts of past major PG&E safety events and bankruptcies

The FFT and Mr. Jones discussed in detail the topic of the relationship in safety culture between the station and the larger corporate organization. Mr. Jones explained how culture at the station typically was separated from the larger corporate safety culture by the constant influence of nuclear industry regulators and oversight organizations. Nuclear station safety and performance metrics remained high throughout periods where other parts of the corporation struggled in safety performance. This included the periods of the 2010 San Bruno natural gas line explosion and the 2018 Camp Fire. The FFT requested more information regarding the lessons learned from the San

Bruno event and the actions taken by PG&E in response to that event and were provided with the following documents:

- A summary of information on corporate responses to the San Bruno event including a reference to information regarding PG&E's Gas Safety Excellence Management System which is a formal structure that drives continuous improvement around safety and asset management in Gas Operations.
- A summary of the status of recommendations made by the National Transportation Safety Board.
- Information on PG&E achieving a process safety certification under American Chemistry Council standard RC14001.
- Information on PG&E achieving two international certifications for operational standards for its gas operations [International Organization for Standardization (ISO) 55001:2014 and Publicly Available Specification (PAS) 44-1:2008] which were awarded by an independent auditor, Lloyd's Register.

Additionally, the FFT inquired about the DCP's relationship to the PG&E Board of Directors and Mr. Jones stated that most of the interaction between the station and the Board occurred through the Board's Safety and Nuclear Oversight (SNO) Committee. The FFT requested and were provided with a document listing the committee members and describing the functions and activities of the SNO Committee as follows:

The Committee *"oversees matters relating to safety, operational performance, and compliance issues related to the utility's nuclear, generation, gas and electric transmission, and gas and electric distribution operations and facilities, including:*

- *Principal risks arising out of the operations and facilities, the process used by management to analyze and identify these risks, and the effectiveness of programs to manage or mitigate these risks.*
- *The Utility's goals, programs, policies, and practices with respect to promoting a strong safety culture.*
- *Periodically visiting the Utility's nuclear and other operating facilities."*

The FFT appreciated the openness that the DCP staff demonstrated when discussing these questions regarding corporate safety culture, and the information provided satisfactorily answered some of the team's questions. The DCISC should follow up to further review: 1) actions taken in response to the lessons learned from the Camp Fire, 2) effectiveness reviews of specific actions taken in response to the lessons learned from the San Bruno event and their outcomes, and 3) additional details on the composition and work of the SNO Committee.

Conclusions: DCP provided a briefing on the organization and functions of DCP's major departments and programs. PG&E personnel satisfactorily answered several questions regarding station safety culture including the relationship between station safety culture and the larger PG&E corporate culture. The DCISC should follow up on several additional questions related to corporate governance, the Board's Safety and Nuclear Oversight Committee, and lessons learned from past major corporate safety events.

Recommendations: None.

3.5 Meet with NRC Senior Resident Inspector

The DCISC FFT met with Mahdi Hayes, NRC Senior Resident Inspector, and Zach Hollcraft, Senior Reactor Operations Engineer, NRC Headquarters, for an update. The DCISC meets regularly with the NRC Resident Inspectors and last met with the Senior Resident Inspector during its July 2024 Fact-Finding Meeting (Reference 6.3), when it concluded the following:

The meeting with the NRC Senior Resident Inspector was beneficial, and the DCISC should continue the meetings.

The items discussed in this meeting included the following:

- Recent NRC Inspection Activities and Non-Cited Violations
- Human Performance and Nuclear Safety Culture at DCP
- Scheduling an NRC Presentation for the DCISC October Public Meeting

Conclusions: The meeting with the NRC Senior Resident Inspector was beneficial, and the DCISC should continue the meetings.

Recommendations: None.

3.6 Corrective Action Program and Human Performance

The DCISC FFT met with Matt Birkel, Performance Improvement and Innovations Director, to review the status of the Corrective Action Program (CAP) and for an update on Human Performance (HU) at DCP. The DCISC last reviewed Human Performance during its May 2024 Fact-Finding Meeting (Reference 6.4), when it concluded the following:

DCP's Human Performance has been excellent over the last two years based on data and trends in Human Performance events. DCP has had no events classified with the highest significance of a Station Level Event since April 2021. The numbers and significance of Department Level Events and Plant Status Control Events remained very low.

At the request of the FFT, Mr. Birkel reviewed the process within the CAP for originating and reviewing deficiencies. The process begins when any individual at the station identifies any type of problem and reports it using PG&E's data management system referred to by the vendor's name, SAP. The identification of a problem in SAP is referred to as a Notification. Following entry into SAP, the Notification is reviewed by multiple entities as follows:

1. Initial Operability Determination – Shift operators review all Notifications periodically during the shift to determine if there is any immediate impact to the operability of

equipment required for safety or emergency response. If there is an impact to equipment operability, operators take the required actions per the Technical Specifications or other procedural requirements. Operators are required by procedure to complete and record their reviews of all Notifications by the end of each shift.

2. Notification Review Team (NRT) – The NRT meets daily to review all Notifications submitted since the last review. The NRT performs an initial classification of Notifications into “DA,” for conditions adverse to quality, or “DN” for work-only conditions not adverse to quality. DNs may be assigned for further action and remain open until that action is complete, or they may be closed if no further action is determined to be necessary.
3. Daily Review Team (DRT) – The DRT meets daily to review all Notifications that involve plant maintenance activities and prioritize resolution of the issue in the plant’s schedules for managing maintenance work.
4. Senior Leadership Team (SLT) – The SLT meets daily and provides senior management with an opportunity to review all classifications made by the previous day’s NRT.
5. Corrective Action Review Board (CARB) – The CARB meets periodically primarily to review cause evaluations and corrective actions taken in response to Notifications, but it also reviews the classification of Notifications made by the NRT.

Mr. Birkel reviewed the numbers and tracking of CAP Notifications and Cause Evaluations. Approximately 20,000 Notifications are initiated each year at DCPD with about 20 Cause Evaluations and 1 Root Cause Evaluation being completed per year. Additionally, about 12 Notifications result in the assignment of an Emerging Issue manager and team to oversee the evaluation of complex issues at the station. Lastly, Mr. Birkel provided the FFT with an overview of how corrective maintenance activities are scheduled for repair at the station including the use of the rolling work-week process for coordinating routine maintenance activities and the Fix-It-Now team for addressing emergent maintenance activities.

Regarding the specific CAP area of Human Performance (HU), DCPD reports and classifies all HU events and records via the CAP for action and resolution. The classifications are as follows:

- Station Level Events (SLEs; highest significance)
- Department Level Events (DLEs)
- Organizational Learning Opportunities (OLOs; lowest significance)

The criteria for HU event classification were provided in detail in DCPD Procedure OM15.ID11, “Human Performance Event Response,” Revision 11, a copy of which was provided to the FFT. Mr. Birkel also briefed the FFT on the station’s observation programs in which supervisors and managers regularly observe worker activities in the field and provide feedback. Often, these observations become the source of OLOs which formally document the lessons learned from the observations for tracking and dissemination to other employees. Mr. Birkel reported that managers

perform about 5,400 field observations per year (excluding those performed during training) of which about 60% are performed by an employee's direct supervisor.

The FFT inquired about the use of HU tools by employees at the station. Mr. Birkel reported that station employees were trained in the use of 14 HU tools. The HU tools were contained in the employee "Red Book," which was a small handbook expected to be carried and referred to by all employees performing work at the station. The FFT requested and were provided with a copy of the DCCP Red Book.

Additionally, the FFT inquired about the use of the Human Factors Analysis and Classification System (HFACS) at the station. Mr. Birkle stated that the HFACS model was used by Performance Improvement Coordinators as a part of the corrective action evaluations for all HU events at the station. The FFT requested and were provided with a copy of the HFACS evaluation template and procedure OM6.ID1, "Injury and Illness Prevention Program," Revision 15, for its review. The HFACS evaluation template and the procedure were found to be adequate for ensuring that appropriate HFACS evaluations are performed when human errors resulted in personnel injuries. However, it remained unclear to the FFT what would trigger an HFACS evaluation to be initiated in response to human errors related to operations and maintenance activities. The DCISC should follow up on this question during a future meeting.

Conclusions: DCCP's Corrective Action Program was performing well in that issues at the station were being effectively identified, evaluated, and tracked for resolution. DCCP's Human Performance Programs effectively incorporated human error prevention and analysis tools. The DCISC should follow up on the question of what would trigger a Human Factors Analysis and Classification System (HFACS) review to be initiated following human errors related to operations and maintenance activities.

Recommendations: None.

3.7 Lunch with Senior Leadership Team

The DCISC FFT met over lunch with the following officers and directors at DCCP for introductions with Dr. Meshkati and to discuss items of mutual interest:

- Adam Peck, Site Vice President, and Acting Chief Nuclear Officer
- Tom Jones, Senior Director, Regulatory, Licensing and Repurposing
- Allen Wilson, Senior Director, Engineering, Projects and Outages
- Justin Rogers, Station Director

The DCISC last met with a DCCP Officer during its July 2024 Fact-Finding Meeting (Reference 6.5) when it concluded the following:

The regular meetings between DCISC and DCCP Officers and Directors continue to be beneficial for both organizations.

Conclusions: The regular meetings between DCISC and DCPD Officers and Directors continue to be beneficial for both organizations.

3.8 License Renewal Application

The DCISC FFT met with Tom Jones, Senior Director, Regulatory, Licensing and Repurposing, and Philippe Soenen, Strategic Initiatives Director, for an update on DCPD's submission of its License Renewal Application (LRA) to the NRC. Deb Luchsinger, Dauphine Hou, Eric Blocher, Jerry Bischof, and Harpreet Bhalla from the California Department of Water Resources also participated remotely in the meeting. The DCISC last reviewed the status of license renewal activities during its December 2023, Fact-Finding Meeting (Reference 6.6), when it concluded the following:

DCPD's submitted its new License Renewal Application on November 7, 2023, and the application was deemed sufficient and accepted by the NRC on December 14, 2023. With that acceptance, DCPD can continue to operate past the end of its current operating licenses until such time as the application is acted upon by the NRC.

On November 7, 2023, DCPD submitted its new LRA to the NRC (Reference 6.7), and the FFT requested that DCPD provide an overview of the LRA's organization and its contents. Messrs. Soenen and Jones provided a summary of the following aspects of the LRA:

- History of the LRA initially submitted in 2009, withdrawn in 2018, and submitted again in 2023 following the passage of Senate Bill 846.
- Development of the 2023 submittal.
- Plans for implementation of LRA-related activities, primarily initial inspections and Aging Management Plans (AMPs).
- LRA-related activities completed in 2023 and 2024, primarily related to inspections completed during Refueling Outages 1R24 and 2R24.

Mr. Soenen reviewed with the FFT the concepts and purposes of the AMPs (44 total) being implemented at DCPD, along with the purposes of the Time-Limited Aging Analyses also contained in the LRA. Commitment implementation schedules were discussed along with the results of recent aging inspections and the related NRC inspection activities. The FFT also discussed with the PG&E staff the status of state agency permits and interactions along with the purpose and content of the Supplemental Environmental Impact Statement included as a part of the LRA.

The FFT inquired about aging of the reactor vessels and Mr. Soenen provided an overview of PG&E's compliance with the NRC regulations for completing analyses of reactor vessel embrittlement. He summarized that the analyses used the results from testing three coupons withdrawn from DCPD along with two from the Palisades plant, which contained the same weld material as DCPD. The five data points provided by those coupons supported the conclusion that both DCPD reactor vessels will remain safe for 60 years of operation (as discussed in Section 4.2

of the DCPD LRA). PG&E had committed to the NRC to remove one additional coupon from Unit 1 (Capsule B) during Refueling Outage 1R25 planned for the spring of 2025. Further analyses will be performed after the test data from a Capsule B coupon is added to the existing data points, and PG&E expects the new data will validate the current conclusions. They also noted that when Capsule B is removed, the coupons contained within will have received a neutron fluence equivalent to approximately 100 years of operation.

The FFT inquired about two questions prompted by conclusions contained in a 2022 NRC report titled “Impacts of Embrittlement on Reactor Pressure Vessel Integrity from a Risk-Informed Perspective,” (Reference 6.9). The PG&E staff members provided summary answers in the meeting but stated they were not familiar with the details of the report and offered to review the questions and provide written answers later. Following the Fact-Finding Meeting, the FFT provided PG&E with the two questions (related to the conclusions on page 31 of the NRC report) in writing along with a copy of the NRC report, and PG&E later provided responses to each question. The FFT’s questions and the answers provided by PG&E are summarized as follows:

Question 1: What are the underlying assumptions regarding uncertainty characterizations used in the current reactor pressure vessel embrittlement evaluations?

PG&E Response: PG&E notes that the subject report pertains to reactors operating for more than 60 years (not up to 60 years, like DCPD). In particular, the executive summary on page iii states the conclusion from a 2019 NRC report: “...increasingly underpredict fracture toughness as fluence increases, starting at a fluence of approximately 3×10^{19} n/cm²...” As shown in the DCPD LRA, Table 4.2.1-1, the 60-year projected fluences are less than 3×10^{19} n/cm². Therefore, DCPD is not a “high fluence plant.”

PG&E follows Regulatory Guide (RG) 1.190 for determining reactor vessel neutron fluence. The RG includes a +/- 20% (1 σ) uncertainty value that is included as part of the margin term when calculating RT_{PTS} [Reference Temperature at end of life]. As long as a plant’s fluence values are within 20% and the margin term is included (which is required), then the actual value of the uncertainty is not relevant since it is covered by the margin term. If the overall calculation uncertainty is greater than 20%, the calculational model is adjusted or a correction is applied to reduce the difference between the fluence prediction and the upper 1 σ limit to within 20%.

Additionally, PG&E’s current reactor pressure vessel embrittlement evaluations include discussions regarding uncertainties being within the 20%.

Conclusion: The FFT concluded that the question of uncertainty characterizations was answered satisfactorily. Additionally, the answer was consistent with recent DCISC consultant reports regarding how uncertainties are treated in PG&E’s analyses of vessel embrittlement.

Question 2: How is “performance monitoring” (in the context of the NRC report) currently performed and how is it adequate to ensure reactor pressure vessel safety?

PG&E Response: PG&E conducts “performance monitoring” through a formal reactor vessel surveillance program implemented in the 1990s, as required by Federal regulations. The surveillance program validates the fluences and resulting reactor pressure vessel integrity and consists of:

- Periodic withdrawal and testing of in-vessel surveillance capsules in accordance with NRC-approved American Society for Testing and Materials (ASTM) standards.
- To supplement the in-vessel capsule, PG&E also conducts periodic withdrawal of ex-vessel monitoring dosimetry equipment, which consists of four gradient chains with activation foils outside the reactor vessel, which are used to monitor the neutron fluence environment within the beltline region.

In the period of extended operation, PG&E plans to continue the surveillance program as stated above. For Unit 1, PG&E plans to withdraw a surveillance capsule in 2025 that will have accumulated one to two times the peak reactor vessel neutron fluence at 60 years of operation. For Unit 2, PG&E has already withdrawn a surveillance capsule with accumulated fluence at 60 years of operation.

The results of the periodic testing are used to determine fluence, determine pressure-temperature limits for operation, and verify compliance with regulations for pressurized thermal shock, upper shelf energy, Low Temperature Overpressure Protection, etc., up to the planned end-of-plant life (60 years for DCP). This periodic, continued verification of compliance with NRC regulations and adjustments to plant operation pressure-temperature limits ensures the reactor pressure vessels remain safe.

Conclusion: The FFT concluded that the question of performance monitoring was answered satisfactorily, based on the current state of knowledge and practices in the industry.

Conclusion: DCP’s License Renewal Application continued to be processed by the NRC. Aging management inspections completed to date have not revealed any significant issues, and NRC reviews of the aging management inspections have not identified any problems. PG&E satisfactorily provided answers to two DCISC questions related to reactor vessel embrittlement calculation uncertainties and to reactor vessel performance monitoring.

Recommendations: None

3.9 Plant Tour

The DCISC FFT met with Michael Jackson, Director, Engineering Services, and Dan McBride, Operations Services Director, for a tour of the DCP site areas outside of the plant Protected Area. The DCISC last conducted a plant tour during its May 2024, Fact-Finding Meeting (Reference 6.9) when it concluded the following:

The DCISC Fact-Finding Team toured the DCP Unit 2 Containment and found that all observed areas and equipment were in good condition.

At the request of the FFT, Messrs. Jackson and McBride guided the team in touring the Turbine Building and entering the Radiation Control Area (RCA) to tour areas inside of the Auxiliary and Spent Fuel Handling Buildings. At the time of the tour, both units were operating at full power. Areas toured included:

- Turbine Building Main Floor (Turbine Generator)
- Turbine Building middle elevations (Feedwater Heaters, Moisture Separator Reheaters, and Electrical Equipment Rooms)
- Turbine Building bottom elevation (Condenser, Main Feed Pumps, Condensate Pumps, and one Emergency Diesel Generator)
- Main Control Room
- Spent Fuel Pool and Cask Handling Area
- Auxiliary Building (Auxiliary Feedwater Pumps, Safety Injection Pumps, Mechanical Penetration Areas)
- Outside Areas (Main and Auxiliary High-Voltage Transformers)

Overall, during the approximately 90-minute walkthrough the FFT found that all observed areas were clean and orderly with equipment in good condition.



FFT and Mr. McBride at Unit 2 Main Generator

Conclusions: The DCISC Fact-Finding Team toured various DCP areas inside the Protected Area and found that all observed equipment was in good condition.

Recommendations: None.

4.0 CONCLUSIONS

- 4.1 DCPD provided a briefing on the design and functions of major systems at the station as an orientation to new DCISC Member, Dr. Meshkati.**
- 4.2 The DCISC Fact-Finding Team toured various DCPD areas outside of the Protected Area and found that all observed equipment areas were in good condition.**
- 4.3 DCPD's Probabilistic Risk Assessment (PRA) Program was emphasizing the development of various PRA applications to support extended plant operations, and the program continued to provide excellent support for enhancing the safety of plant operations.**
- 4.4 DCPD provided a briefing on the organization and functions of DCPD's major departments and programs. PG&E personnel satisfactorily answered several questions regarding station safety culture including the relationship between station safety culture and the larger PG&E corporate culture. The DCISC should follow up on several additional questions related to corporate governance, the Board's Safety and Nuclear Oversight Committee, and lessons learned from past major corporate safety events.**
- 4.5 The meeting with the NRC Senior Resident Inspector was beneficial, and the DCISC should continue the meetings.**
- 4.6 DCPD's Corrective Action Program was performing well in that issues at the station were being effectively identified, evaluated, and tracked for resolution. DCPD's Human Performance Programs effectively incorporated human error prevention and analysis tools. The DCISC should follow up on the question of what would trigger a Human Factors Analysis and Classification System (HFACS) review to be initiated following human errors related to operations and maintenance activities.**
- 4.7 The regular meetings between DCISC and DCPD Officers and Directors continue to be beneficial for both organizations.**
- 4.8 DCPD's License Renewal Application continued to be processed by the NRC. Aging management inspections completed to date have not revealed any significant issues, and NRC reviews of the aging management inspections have not identified any problems. PG&E satisfactorily provided answers to two DCISC questions related to reactor vessel embrittlement calculation uncertainties and to reactor vessel performance monitoring.**
- 4.9 The DCISC Fact-Finding Team toured various DCPD areas inside the Protected Area and found that all observed equipment was in good condition.**

5.0 RECOMMENDATIONS

5.1 None.

6.0 REFERENCES

- 6.1 “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, Volume II, Exhibit D.3, Section 3.6, “Intake Structure Tour.”
- 6.2 Ibid., Exhibit D.4, Section 3.4, “Overall Probabilistic Risk Assessment (PRA) Program Review.”
- 6.3 “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 22, 2025, Volume II, Exhibit D.1, Section 3.8, “Meet with NRC Senior Resident Inspector.”
- 6.4 “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, Volume II, Exhibit D.9, Section 3.4, “Human Performance and Plant Status Control.”
- 6.5 “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 22, 2025, Volume II, Exhibit D.1, Section 3.7, “Meet with DCPD Officer.”
- 6.6 “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, Volume II, Exhibit D.5, Section 3.8, “License Renewal Application Overview.”
- 6.7 “License Renewal Application,” submitted to the Nuclear Regulatory Commission as an enclosure to PG&E Letter DCL-23-118, November 7, 2023, NRC ADAMS Accession Number ML23311A154.
- 6.8 “Impacts of Embrittlement on Reactor Pressure Vessel Integrity from a Risk-Informed Perspective,” US Nuclear Regulatory Commission Report, March 8, 2022, NRC ADAMS Accession Number ML21314A228.
- 6.9 “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, Volume II, Exhibit D.9, Section 3.10, “Plant Tour.”