

## **DIABLO CANYON INDEPENDENT SAFETY COMMITTEE**

### **Report on**

### **Fact-Finding Meeting at DCP on November 12 and 13, 2024**

### **by**

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## **1.0 SUMMARY**

The results of the DCISC November 12 and 13, 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. Observe Nuclear Safety Oversight Committee Meeting
2. Meet with DCP Senior Director
3. Program for Plant Changes Under 10 Code of Federal Regulations (CFR) 50.59
4. Meet with Nuclear Regulatory Commission (NRC) Resident Inspectors
5. Observe Plant Staff Review Committee Meeting
6. Meet with Geosciences Staff
7. Probabilistic Risk Assessment Program
8. Observe T-02 Weekly Scheduling Meeting
9. Chemical and Volume Control and Emergency Core Cooling Systems
10. World Association of Nuclear Operators Peer Review Results
11. Cause Evaluation for Auxiliary Saltwater Pump 2-2 Failure
12. Causes and Corrective Actions for Secondary System Steam Leaks
13. Causes and Corrective Actions for Dropped Control Rod Event
14. 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 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 DCPD 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 Observe Nuclear Safety Oversight Committee Meeting**

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

The DCISC FFT remotely observed the October 23, 2024, Nuclear Safety Oversight Committee (NSOC) exit meeting. The DCISC last observed an NSOC exit meeting during its November 2023 Fact-Finding Meeting (Reference 6.1), 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.*

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 FFT observed that the NSOC members appeared thorough in their evaluations and candid in their reports. The NSOC commended DCPD for its openness, and DCPD responded to all comments with acceptance and consideration of future actions. Some of the NSOC's observations were consistent with those of the DCISC, and a few observations provided more unique and valuable perspectives on station performance.

**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.**

### 3.2 Meet with DCPD Senior Director

The DCISC FFT met with Allen Wilson, Senior Director, Engineering, Projects, and Outages, for an update. The DCISC last met with a DCPD director or officer in September 2024 (Reference 6.2) when it concluded the following:

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

The group discussed the fact-finding agenda items and other items of mutual interest.

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

**Recommendations for the DCISC or PG&E: None.**

### 3.3 Program for Plant Changes Under 10 Code of Federal Regulations (CFR) 50.59

The DCISC FFT met remotely with Jordan Tyman, Risk and Compliance Director; Jim Morris, Regulatory Services Manager; and Dave Madison, 10 CFR 50.59 Program Owner, for an update on DCPD's programs to manage plant changes under the requirements of 10 CFR 50.59, "Changes, Tests and Experiments." The DCISC last reviewed the 10 CFR 50.59 Program during its July 2021 Fact-Finding Meeting (Reference 6.3) when it concluded the following:

*DCPD's program for managing plant changes under 10 CFR 50.59 was being properly implemented and ensured that changes made to the facility were adequately reviewed to determine their impact upon the facility and its licensing basis.*

Mr. Madison provided an overview of the 10 CFR 50.59 regulation [and the associated regulation of 10 CFR 72.48 applicable to the Independent Spent Fuel Storage Installation (ISFSI)], the purpose of which was to provide a mechanism for a nuclear power plant to make changes to its physical facility or procedures and programs without prior NRC approval provided certain conditions were met. The required conditions for acceptable changes included determining that the change did not create any new hazards/accidents that had not previously been evaluated and did not decrease the performance of structures, systems or components that were necessary to mitigate accidents. Nuclear Energy Institute document 96-07, "Guidelines for 10 CFR 50.59 Implementation," provides NRC-endorsed industry guidance for the change management process. The FFT inquired if any significant program changes had been made since the DCISC's last review, and DCPD reported that no significant programmatic or procedural changes had been made since 2021. Mr. Madison noted that the NRC had changed its inspection program such that the 10 CFR 50.59 Program was no longer scheduled as a regular, standalone inspection but rather was covered under a new Comprehensive Engineering Team Inspection activity. Additionally, significant additions and changes had been made to 10 CFR 50.59 training programs to ensure that

the plant’s engineers and technicians correctly understood how the program should be applied to changes proposed for digital systems.

DCPP’s 10 CFR 50.59 program was integrated in the plant’s program for managing the licensing basis which was governed by procedure TS3.ID2, “Licensing Basis Impact Evaluations,” a copy of which was provided to and reviewed by the FFT. The procedure required that all proposed changes be reviewed using a three-step process as follows:

1. Applicability Determination – an initial review is performed to determine which regulations and/or programs may govern a proposed change.
2. 10 CFR 50.59/72.48 Screening Evaluation – if the Applicability Determination concludes that a proposed change is governed by the regulations, then a high-level screening review is performed to determine if a full 10 CFR 50.59/72.48 change evaluation is required
3. 10 CFR 50.59/72.48 (Full) Evaluation – if the Screening Evaluation concludes that more information is needed to determine the impact of the change, then a detailed evaluation is performed to determine the full effects of the proposed change, how the change affects the licensing basis, and if the proposed change does or does not require prior NRC approval.

The FFT inquired as to the numbers of Applicability Determinations, Screenings, and Evaluations that were recently performed at DCP, and DCP provided the following approximate numbers of each for the last four years as follows:

|                              | <u>2021</u> | <u>2022</u> | <u>2023</u> | <u>2024 (to date)</u> |
|------------------------------|-------------|-------------|-------------|-----------------------|
| Applicability Determinations | 430         | 600         | 900         | 1300                  |
| Screenings                   | 110         | 155         | 175         | 233                   |
| Evaluations                  | 1           | 0           | 1           | 3                     |

Over the last three years, the numbers in all categories increased significantly due to the decision to pursue extended operations as the extension resulted in the initiation of a large number of plant design changes and an increase in other related activities. The FFT requested and were provided copies of the four most recent Evaluations – one under 10 CFR 50.59 covering the use of actions to close a manual feedwater valve as a compensatory measure for a weld degradation (LBIE 2023-165) and three under 10 CFR 72.48 associated with changes made to spent fuel handling systems provided by Holtec (LBIEs 2024-002, 2024-003, and 2024-004). The FFT inquired regarding what prompted the high numbers of Evaluations associated with the Holtec system, and Mr. Madison responded that two of the Evaluations were associated with the procurement of twelve new Multi-Purpose Canisters and the initiation of a spent fuel offload campaign in 2024. Minor changes that had recently been made to the Holtec equipment and processes were already reviewed, approved and implemented by Holtec under its general license. However, DCP was required also to review and approve the changes under 10 CFR 72.48 since the use of Holtec equipment and processes at DCP’s ISFSI was authorized under a site-specific license (and not

under the Holtec general license). The FFT found that the evaluations were extensive and appeared to clearly document the impacts of the change and why NRC approvals were not required.

In response to a question from the FFT, Mr. Madison noted that periodic self-assessments of the program were no longer required by procedures, but all Evaluations and some complex Screenings continued to be reviewed by a Quality Review Board to ensure that the Evaluations were correctly performed and sufficiently detailed. Also, all Evaluations were required to be reviewed and approved by the Plant Staff Review Committee.

**Conclusion:** DCP's program for managing plant and Independent Spent Fuel Storage Installation changes under 10 CFR 50.59 and 72.48, respectively, was being properly implemented and ensured that changes made to the facility were adequately reviewed to determine their impact upon the facility and its licensing basis.

**Recommendations for the DCISC or PG&E:** None.

### 3.4 Meet with NRC Resident Inspectors

The DCISC FFT met with Mahdi Hayes, NRC Senior Resident Inspector, and Eli Garcia, Resident Inspector, for an update. The DCISC meets regularly with the NRC Resident Inspectors and last met with them during its September 2024 Fact-Finding Meeting (Reference 6.4), when it concluded the following:

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

The items discussed in this meeting included the following:

- Recent equipment issues at DCP
- Recent NRC inspection results
- Corrective Action Program implementation at DCP

**Conclusion:** The meeting with the NRC Resident Inspectors was beneficial, and the DCISC should continue the meetings.

**Recommendations for the DCISC or PG&E:** None.

### 3.5 Observe Plant Staff Review Committee Meeting

The DCISC FFT observed the Plant Staff Review Committee (PSRC) meeting of November 12, 2024. This was the DCISC's first recent observation of a PSRC meeting although the DCISC frequently reviews the minutes and products approved by the PSRC as a part of the monthly documents provided by PG&E to the DCISC.

According to procedure OM4.ID2, “Plant Staff Review Committee,” Revision 29 (copy provided to the FFT), the PSRC’s purpose is to:

1. Advise the Station Director on all matters related to nuclear safety.
2. Review overall facility operating and maintenance experience; proposed changes and tests; adequacy of procedures; security, fire protection, environmental matters, and other subjects which may have a bearing on nuclear safety at the facility.

The PSRC was required to review and approve an extensive list of documents for the express purpose of ensuring that the proposed actions do not require prior NRC approval or require a change to the Technical Specifications and for recommending approval or disapproval of documents to the appropriate DCPD approval authority. Documents required to be reviewed and approved by the PSRC included:

- Evaluations completed under 10 CFR 10.59 or 72.48 (see Section 3.3 above)
- Proposed changes to the plant’s Technical Specifications and investigating any violations of the plant’s Technical Specifications
- Events reportable to the NRC
- Significant facility operating experience events
- Security Plan changes
- Emergency Plan changes
- Procedures for special tests and infrequently performed evolutions
- Plant startup readiness reports
- Outage Safety Plan changes

The membership of the PSRC consists of at least eight management individuals who are knowledgeable in the areas of operations, maintenance, engineering, radiation protection, and performance improvement. Regular and alternate members are designated in writing by the Station Director, and PSRC meetings are held as necessary with a minimum frequency of twice per year. This meeting was chaired by Dan McBride, the Operations Services Director. The agenda for this meeting included the following:

- Safety Minute
- Verify Quorum and Adequate Expertise
- Review Desired Outcomes
- Review DCL-24-094, “License Amendment Request 24-04 Application to Revise Technical Specifications (TS) to Adopt TSTF-589 to Modify TS 3.3.5 and 3.8.2”
- Review “Surveillance Test Risk Informed Documented Evaluation, STP M-12B, Battery Charger Performance Test Interval”
- Review Action Items and Meeting Evaluation

The FFT observed that the meeting was effectively managed, covering items on the agenda efficiently while allowing adequate time for any participants to question and discuss items of interest in more detail. There was good participation by all PSRC attendees.

**Conclusion:** The November 12, 2024, DCPD Plant Staff Review Committee (PSRC) meeting covered items on the agenda efficiently while allowing adequate time for any participants to question and discuss items of interest in more detail. There was good participation by PSRC attendees.

**Recommendations for the DCISC or PG&E:** None.

### 3.6 Meet with Geosciences Staff

The DCISC FFT met with Jeff Bachhuber, Director, Geosciences; Albert Kottke, Principal Geotechnical Earthquake Engineer; Chris Madugo, Geosciences Consultant; and Jearl Strickland, Consultant. Deb Luchsinger, Jerry Bischof, and Harpreet Bhalla 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 similar topics during two sessions of its September 2024 Fact-Finding Meeting (Reference 6.5 and 6.6), when it concluded the following:

*The discussion with PG&E experts during this Fact-Finding meeting provided valuable additional information and clarifications that has substantially aided the DCISC in performing its own evaluation of the positions, claims, and conclusions of Dr. Peter Bird concerning the seismic hazard at the DCPD site. Further review of Dr. Bird's concerns is warranted but will require Dr. Bird to document them in the form of a report that is suitable for an independent peer review. Based upon the review performed during this Fact-Finding, the DCISC does not have a basis to alter our previous conclusions about the adequacy of seismic safety at DCPD. Nevertheless, we encourage Dr. Bird to develop a report that can be subjected to independent peer review by independent subject matter experts. It is premature for the DCISC to reach any definitive conclusions about Dr. Bird's concerns or to change our current assessment that DCPD has appropriate and adequate seismic safety, until after this independent review information is available. That is, the DCISC's ultimate evaluation of the technical issues raised and any conclusions arising from it will necessarily need to await the further work now under way, including by the NRC staff, the IPRP, PG&E and (to be convened) Neotectonics subject matter experts.*

*The discussion with PG&E experts during this Fact-Finding meeting provided valuable insights into the usefulness and applicability of the recent Independent Peer Review Panel (IPRP) report. The DCISC concludes that, on balance, nothing in the IPRP report would lead the DCISC to modify substantively its current broad conclusions about the site seismic hazard. Further study is under way in several areas that could provide more information in the future, and could decrease our uncertainties, and the DCISC fully agrees that that work is important to pursue. On the main technical topics, the DCISC also expects to receive a presentation by both PG&E and the IPRP at its upcoming Public Meeting in Avila Beach on October 9-10 2024.*

The topics discussed during this FF meeting covered the following technical subjects:

- A general update and discussion regarding concerns from Dr. Peter Bird and the Independent Peer Review Panel (IPRP).
- An overview of PG&E's latest correspondence contained in PG&E letter DCL-24-103 (Reference 6.7), primarily Enclosure 2, regarding the Noto Earthquake in January 2024 in Japan.
- Evaluations and comments regarding Dr. Bird's October 30, 2024, correspondence to the DCISC (Reference 6.8).
- An update on the plans for the Long-Term Seismic Program (LTSP) that PG&E carries out as an NRC license condition.

The discussion focused in part on relevant geodetic data that the PG&E team explained in terms of their usefulness in understanding the seismic history of the Irish Hills. They noted that in the next year, PG&E plans to organize a public workshop that will gather a group of geodetic experts to explore the various interpretations of these data.

They also explained that their near-term plans include doing sensitivity studies to improve the seismic-source model for the Irish Hills and the nearby region. Concerning offshore geodesy, they are exploring whether an extensive deployment of additional instruments will provide enough beneficial data to make it worthwhile. They will be supporting the US Geological Survey in the interim to replace some of the existing instruments.

The PG&E team explained why their interpretation of the various measurements of the slip rate on the Hosgri Fault differs from that proposed by the IPRP. The PG&E group believes that it is inappropriate to give zero weight to certain of the data sets (as suggested by the IPRP) because the spirit of the NRC-endorsed Senior Seismic Hazards Analysis Committee (SSHAC) process requires the inclusion of all "technically defensible interpretations," even if some of them are given only modest weight in the logic tree. Previously, the DCISC has found that the difference in overall Hosgri Fault hazard resulting from using the IPRP's position, compared to using the PG&E position in the Updated Seismic Assessment, would be to increase the site hazard's frequency arising from the Hosgri fault by about 25% (Reference 6.9). That change, if accepted, would still result in the plant's overall seismic risk being well within the acceptable range as defined by NRC Regulatory Guide 1.174 (total Core Damage Frequency and Large Early Release Frequency less than  $10^{-4}$  per year and  $10^{-5}$  per year, respectively).

Concerning seismic information from the Casmalia region to the south and its usefulness in understanding the local environment near the Diablo Canyon site (as suggested by the IPRP), the PG&E effort will focus on trying to develop stronger dating information. PG&E may also include this topic in the proposed public workshop for geodetic experts.

Concerning structural models for the Irish Hills, PG&E explained that their LTSP program will be examining those models further and they are considering publishing the models for review to improve their credibility.

PG&E also explained that they will be awaiting the NRC's evaluation of Dr. Bird's analyses and contentions as the NRC work develops and will also be awaiting any further evaluations that the IPRP might develop.

**Conclusion:** PG&E provided information addressing each of several technical topics relevant to the seismic hazard at the DCPD site. Most of the discussion was in response to the DCISC's questions, and the clarifications were helpful and in sufficient depth to provide the requested information.

**Recommendation to the DCISC:** The DCISC should continue its work to develop its own independent understanding of the seismic hazard at the DCPD site. (D11/24FF-3.6)

**Recommendation to PG&E:** None.

### 3.7 Probabilistic Risk Assessment Program

The DCISC FFT met with Jordan Tyman, Risk and Cyber Security Manager, for an update on the status of the station's Probabilistic Risk Assessment (PRA) program. The DCISC last reviewed the PRA Program during its August 2024 Fact-Finding Meeting (Reference 6.10) when it concluded the following:

*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.*

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.

Mr. Tyman briefed the FFT on current risk-informed program changes being implemented using PRA methods and analyses through License Amendment Requests (LARs). Most of these initiatives reflected the fact that PG&E did not take advantage of many industry initiatives in this area during the last few years in which it was planned to cease operations at the end of the current license expirations. As the plant is now moving into extended operations, PG&E is now making a concentrated effort to apply for a large number of risk-informed program changes including:

- 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 (10 CFR 50.69)

Regarding the first item on the list, Risk-Informed Completion Times, PG&E received approval of its LAR in early May 2024 and implemented the associated program changes later that same month. (The term “Completion Times” refers to the maximum time that a safety system is allowed to be inoperable before compensatory actions must be initiated according to the plant’s Technical Specifications.) Mr. Tyman explained to the FFT the process by which PG&E used the Phoenix risk model to evaluate any proposed completion time changes in the context of plant conditions and to define any risk management actions that were needed to compensate for those changes. He also noted that a part of the program was a requirement to perform an annual risk assessment to ensure that the cumulative effects of any completion time changes were held below a desired value. Lastly, he reported that the NRC recently approved a generic guideline for the assessment of the risk arising from completion time changes specific to digital systems.

Mr. Tyman reported that PG&E expected approval of its LAR for using risk-informed categorizations of systems, structures and components under 10 CFR 50.69 before the end of 2024. Current plans were to use the new approach to reclassify components as appropriate in the Control Room Ventilation, Radiation Monitoring, Feedwater, and Main Steam systems. He also noted that NRC approval for extending the integrated leakage testing for the Containment systems from 10 years to 15 years was expected in mid-2025.

Lastly, the FFT inquired about other ongoing activities in the PRA Program. Mr. Tyman noted that DCP’s PRA continues to meet all aspects of the NRC-endorsed ASME-ANS PRA methodology standard for large light water reactors. Mr. Tyman explained that the group was focusing on converting the PRA analysis software from “Riskman” to “CAFTA” (Computer Aided Fault Tree Analysis) as the CAFTA software had over the last few years become the industry standard. This would be followed by an update of the overall PRA model in 2025 to incorporate recent changes to plant design, procedures and methodology.

**Conclusion: DCP’s Probabilistic Risk Assessment (PRA) Program was currently emphasizing the development of various risk-based License Amendment Requests to support extended plant operations. Overall, the PRA Program continued to provide excellent support for enhancing the safety of plant operations.**

**Recommendation to the DCISC or PG&E: None.**

### 3.8 Observe T-02 Weekly Schedule Review Meeting

The DCISC FFT observed the T-02 Work Week Schedule Review meeting of November 13, 2024. This was the DCISC’s first observation of a work week scheduling meeting although the DCISC frequently reviews the T+01 Work Week Critique meeting minutes as a part of the monthly documents provided by PG&E to the DCISC.

DCPP's Corrective Maintenance Program is governed in part by procedure AD7.ID4, "On-Line Maintenance Scheduling," a copy of which was provided to and reviewed by the FFT. The prioritization of maintenance work to correct equipment deficiencies is primarily performed by a multi-disciplinary group called the Daily Review Team (DRT). The DRT is responsible for meeting daily to review equipment-related deficiencies (via Notifications), creating a work order, and deciding the appropriate prioritization and time frame for resolution. Standard prioritizations and time frames for resolution are used based on industry guidelines and are generally as follows:

- Priorities 1 to 3 – Critical, high priority, or emergent work that requires scheduling or plant coordination to support repairs within a short timeframe (less than 12 weeks).
- Priority 4 – Routine work that requires scheduling or coordination. Repair work will be entered into the normal 12-week rolling work schedule and/or into the next available maintenance outage window.
- Priority 5 – Routine work that is scheduled or worked as time permits in deference to other higher priority items.

The bulk of the corrective maintenance work at DCPP consists of Priority 4 and 5 deficiencies, and the backbone of the work scheduling process for these deficiencies is the 12-week rolling matrix of Surveillance Test Procedures (STPs) performed on the major Engineered Safety Feature components and other equipment important to safety. The 12-week rolling matrix staggers the STPs by week based on the three vital electrical power supply buses and the associated protection system trains. The matrix has been evaluated by risk assessment methods and judged acceptable as a basis for scheduling Maintenance Outage Windows on vital equipment. All Priority 4 and 5 corrective maintenance activities are scheduled around and in conjunction with the 12-week maintenance schedules for vital equipment.

The 12-week rolling matrix process results in a cycle of work planning that begins at T-11 (11 weeks prior to the work week) with a work week scope freeze occurring at T-06 and a work week schedule freeze occurring at T-02. Following completion of a work week, a critique is performed to evaluate the quality of work week planning and execution and this is referred to as the "T+01 Critique." This meeting observed by the DCISC was focused on the status of scope and schedules for the work week planned to occur on November 25 through December 1, 2024. The meeting was being held at the T-02 point (two weeks prior) which as discussed above is the point where the schedule for the work week becomes "frozen" (no further schedule changes allowed).

The T-02 Meeting was facilitated by Calvin Chan, Work Week Manager. All station departments were represented either in person or attending remotely. The agenda for this meeting included the following:

- Visitor Welcome and Roll Call
- Review Purpose and Desired Outcomes
- Review Daily Safety Message and Plus/Deltas from Last Meeting
- Supply Chain Parts Report
- Risk Assessments

- Maintenance Outage Window Schedules
- Control Room Impacts and Operations Comments
- Clearance Reviews and Scheduling
- Project Work
- Fix-It-Now Team Support
- Radiation Protection and Dose-related Activities
- Security Support
- Preventive Maintenance Overdue Report
- Final Implementation Readiness Review
- Review of Actions and Director Comments

Major maintenance activities that were planned and scheduled for the upcoming work week included:

- Residual Heat Removal Pump 1-1 Maintenance Outage Window
- Raw water Reservoir 0-1B License Renewal Inspections
- Security Protective Strategies Improvement Project
- Biolab Reliability Improvement Project

The FFT observed that the meeting was effectively managed, covering items on the agenda efficiently while allowing adequate time for any participants to question and discuss items of interest in more detail.

**Conclusion: The November 13, 2024, T-02 Work Week Schedule Review meeting covered items on the agenda efficiently while allowing adequate time for any participants to question and discuss items of interest in more detail.**

**Recommendation to the DCISC or PG&E: None.**

### 3.9 Chemical and Volume Control and Emergency Core Cooling Systems

The DCISC FFT met with Mark Frantz, Strategic Engineering Manager, and Brandon Mainini, Primary Systems Strategic Supervisor, for an update on the health of the Chemical and Volume Control System (CVCS) and Emergency Core Cooling System (ECCS). The DCISC last reviewed these systems during its January 2021 Fact-Finding Meeting (Reference 6.11) when it concluded the following:

*DCPP's Chemical Volume Control System and Emergency Core Cooling System were all in good health on both units. This was good performance.*

The DCPP CVCS serves both emergency and non-emergency functions. During non-emergency (normal) operations, the Centrifugal Charging Pumps (CCP), as a part of the CVCS, supply high pressure makeup water to the Reactor Coolant System (RCS). The CVCS provides a means of continuous letdown and makeup to the RCS to replenish water removed via letdown for cleanup or via Reactor Coolant Pump seal leak off. The CVCS also includes two Boric Acid Transfer

Pumps per unit and associated equipment which provide for the addition of boric acid to RCS water to control core reactivity. The CCP system was originally provided with two safety-related CCPs for either ECCS or normal use along with a non-safety related positive-displacement pump for normal use. As the positive-displacement pump proved highly unreliable, it was replaced with a non-safety related CCP on both units in 2008. This non-safety related CCP is currently the primary pump used to supply the CVCS during normal operations. The other two safety-related CCPs are normally left in standby.

During emergencies, the two safety-related CCPs serve as High Pressure Safety Injection Pumps as a part of the larger ECCS. The CCPs as a part of the ECCS are designed to inject high pressure water from the Refueling Water Storage Tank to cool the reactor core and provide negative reactivity in the event of a loss of coolant accident, a spurious lifting of a Reactor Coolant System (RCS) Pressurizer Relief Valve, a Rod Cluster Control Assembly ejection, or a Steam Generator tube rupture. The larger ECCS also includes two additional systems. The first is the Safety Injection (SI) System (for intermediate pressure injection) which includes two SI Pumps and four pressurized SI Accumulator tanks. Second is the Residual Heat Removal (RHR) System (for low pressure injection and recirculation) which includes two RHR Pumps and two RHR Heat Exchangers for long term heat removal during post-accident or shutdown conditions.

Mr. Mainini provided the FFT with copies of the System Health reports for the CVCS, SI, and RHR systems for both units. All three systems on both units were rated as Green, Healthy, and there were only a few equipment issues affecting the systems. Equipment issues being tracked for resolution included:

- Both units' CVCS exceeded their Maintenance Rule Performance Criteria due to unrelated failures to meet the acceptance criteria of Surveillance Test Procedure M-87, "ECCS Post-LOCA Recirculation Leakage." Following repairs, both units' CVCS were placed in Maintenance Rule (a)(1) status with new performance goals having been approved and in the process of being monitored.
- On Unit 1, CVCS valve 1-8141A, the Reactor Coolant Pump Seal Leakoff Isolation Valve, failed to close during a surveillance test. The failure was determined to be a Maintenance Rule Functional Failure. Following repairs, new performance (reliability) goals for the system had been approved and were in the process of being monitored.
- SI Pump 1-1 was fully operable, but elevated vibrations were observed and being regularly monitored. Additionally, the pump's inboard mechanical seal had a small leak. Repairs were planned for Refueling Outage 1R25 in early 2025.
- SI Accumulator 1-2 was fully operable, but since 2020 had a small amount of backleakage into it through a check valve from the RCS. The check valve was rebuilt by a specialty vendor during Refueling Outage 1R23 in early 2022, and backleakage was reduced but not eliminated. The backleakage was being monitored, and the valve would be replaced the next time that the necessary plant conditions were available.

- On Unit 2, the RHR system experienced erratic indications on a temperature element on the heat exchanger outlet. The failure was determined to be a Maintenance Rule Functional Failure. Following repairs, new performance (reliability) goals for the system had been approved and were in the process of being monitored.

The FFT inquired as to the results of ECCS flow balance testing performed during refueling outages. DCPD responded that the flow tests had been regularly completed during recent outages without any major issues. Considering the minor safety significance of the several issues above, the FFT concluded that the health of CVCS and ECCS was good overall, and this was good performance in systems management by DCPD.

**Conclusion: DCPD's Chemical Volume Control System and Emergency Core Cooling Systems were all in good health on both units.**

**Recommendation to the DCISC or PG&E: None.**

### 3.10 World Association of Nuclear Operators Peer Review Results

*(Because of its privacy agreement with DCPD, the DCISC cannot share information regarding the details of INPO and WANO evaluations or subsequent corrective actions.)*

The DCISC FFT met with Erik Werner, Outage Planning and Execution Director, for an update on the status of DCPD's recent evaluation by the World Association of Nuclear Operators (WANO). The DCISC last reviewed the status of Institute of Nuclear Power Operations (INPO) and WANO evaluations during its November 2023 Fact-Finding Meeting (Reference 6.12) when it concluded the following:

*DCPD has usually received positive INPO and WANO evaluations in the past with a few areas for improvement, which it has effectively resolved. DCPD appears to have a positive working arrangement with INPO and WANO.*

Each nuclear power plant in the U.S. nuclear industry is evaluated by INPO on its performance both continuously and with a focused evaluation approximately every two years. WANO is a sister organization to INPO and is generally responsible for international plant reviews, whereas INPO concentrates on U.S. plants only. Both organizations' purpose is to help nuclear plants achieve and maintain excellence in nuclear operations. DCPD's most recent biennial performance evaluation was completed in August 2024 by WANO, and DCPD received a high overall rating with three Strengths and three Areas for Improvement (AFIs) identified. DCPD briefed the FFT on the details of the results, which were generally positive overall with no significant new deficiencies identified in the AFIs. DCPD entered the AFIs in their Corrective Action Program.

**Conclusion: DCPD's August 2024 evaluation by the World Association of Nuclear Operators was positive overall.**

**Recommendation to the DCISC or PG&E: None.**

### 3.11 Cause Evaluation for Auxiliary Saltwater Pump 2-2 Failure

The DCISC FFT met with Mark Frantz, Plant Engineering Manager; Don Baptista, Procedure Writer; Denon Madson, Electrical Maintenance Superintendent; and Ken Pazdan, Maintenance Manager, to review the status of the Cause Evaluation and corrective actions for a failure of the motor for Auxiliary Saltwater (ASW) Pump 2-2 in the fall of 2023. The DCISC last reviewed this topic during its May 2024 Fact-Finding Meeting (Reference 6.13) when it concluded the following:

*A motor bearing degradation on Auxiliary Saltwater Pump 2-2 discovered in the fall of 2023 was found to be a repeat of a bearing degradation issue that occurred in 2018. A Cause Evaluation is in progress to determine why corrective actions from the 2018 event were ineffective in preventing recurrence, and the DCISC should review the results of that Cause Evaluation following its completion.*

As reviewed by the DCISC in March and May 2024, examinations following removal of the failed ASW Pump 2-2 motor in 2023 revealed that the motor bearing was degraded with wear patterns the same as a motor bearing degradation that occurred in November 2018 on the motor for ASW Pump 2-1. At that time, a Root Cause Evaluation (RCE) was performed and the cause of the 2018 bearing degradation was determined to be excessive axial pre-loading (thrust) of the bearing when it was reassembled following motor overhaul in 2016. The axial pre-loading was set by a complex process involving the installation of a proper thickness of shims which limited the amount of endplay for the motor shaft. DCPD previously reviewed with the DCISC the complexity of the steps involved in setting the axial pre-load and how the procedure would likely need additional revisions beyond what was implemented as corrective actions for the 2018 RCE. Given the complexity of the task, the date to complete a new Cause Evaluation had been extended to late summer 2024 to allow validation of any procedure changes during the next motor overhaul that was planned in mid-2024.

Mr. Baptista reviewed with the FFT the final set of maintenance procedures changes that were made and validated during the recent motor overhaul. He summarized that the most recent changes eliminated one of two possible methods for setting the axial pre-loading and added more detail about how to locate measurement instruments to ensure that pre-loading readings were properly and consistently taken. He provided copies to the FFT of the three maintenance procedures that were modified, and the FFT confirmed the changes were as described.

The FFT inquired about how DCPD had dispositioned the 2018 RCE's ineffectiveness in preventing recurrence of the bearing failure. DCPD provided a copy of a Notification (SAPN 51225061, "Inadequate Root Cause CA [Corrective Action] Implementation") which addressed the question. The FFT reviewed the Notification and found that the information provided did not fully address the issue. Following the Fact-Finding Meeting, PG&E explained that the Notification was still open and evaluations were still in progress to determine the final corrective actions. The FFT recommends that PG&E continue to further evaluate why corrective actions from the 2018 RCE did not result in sufficiently effective procedure changes. The FFT noted that the issue was

reviewed by the NRC in its September 2024 Biennial Problem Identification and Resolution Inspection which resulted in the issue of a “Green” (low safety significance) Non-Cited Violation for DCPD’s failure to preclude repetition of a significant condition adverse to quality.

**Conclusion:** A motor bearing degradation on Auxiliary Saltwater (ASW) Pump 2-2 discovered in the fall of 2023 and its similarity to a 2018 motor bearing failure on ASW Pump 2-1 was reviewed by DCPD and appropriate corrective actions were initiated. PG&E is continuing to evaluate why a 2018 Root Cause Evaluation for a similar motor bearing failure did not result in sufficiently effective procedure changes.

**Recommendations to the DCISC:** None.

**Recommendation to PG&E:** PG&E should continue to evaluate why a 2018 Root Cause Evaluation for a failed Auxiliary Saltwater Pump motor bearing did not result in sufficiently effective procedure changes. (P11/24FF-3.11)

### 3.12 Causes and Corrective Actions for Secondary System Steam Leaks

The DCISC FFT met with Dan McBride, Operations Services Director; Michael Jackson, Engineering Services Director; Mike Moren, Supervisor Secondary Strategic Engineering; and John Serna, Secondary Strategic Engineer, to review the status of the Cause Evaluation and corrective actions for a secondary systems steam leak that occurred on Unit 2 in May 2024 which required a major power reduction of the unit to repair. This was the DCISC’s first review of this topic.

The DCPD staff members described the event to the FFT. On May 23, 2024, with Unit 2 at 83% power in startup following Refueling Outage 2R24, a large steam leak developed on the Moisture Separator Reheater (MSR) 2-1A shell dump line to the condenser at valve XS-2-797. Reactor Power was reduced to 2% and the unit was separated from the grid for repairs. The steam leak was found to be coming from the body to bonnet joint on XS-2-797, and the joint gasket was replaced. On May 25, the unit was again synchronized to the grid and power increased. After synchronizing the generator, a second steam leak was discovered on the piping reducer downstream of XS-2-797. The second steam leak was isolated for repair, and the unit returned to full power on May 26.

Mr. Jackson reported that a Cause Evaluation was performed to determine the causes and appropriate corrective actions. The shell dump line where the components were located was subjected to extensive use during startup and shutdown activities, but was not typically used during steady state, full power operations. Troubleshooting activities and Cause Evaluation investigations identified that a pressure switch (PS-391) that controlled use of the shell dump line was found to be nonfunctional. The pressure switch allowed water hammer conditions to develop in the dump line when it was in use to dump water from the MSR to the condenser. The water hammer conditions caused pressure and temperature transients sufficient to cause the XS-2-797 body to bonnet joint’s gasket to fail (the first steam leak) and also to cause a crack to develop in a weld on the downstream reducer (the second steam leak).

The FFT requested and was provided with a copy of the Cause Evaluation for review. The FFT found that that Cause Evaluation included an extensive review of MSR operating parameters which set up the water hammer conditions and what was needed to ensure that those conditions would not develop in the future. Additionally, the Cause Evaluation performed a thorough extent of condition review including initiating the testing of other secondary plant pressure switches to confirm their proper operation and performing ultrasonic inspections of similar mechanical and welded joints elsewhere in the plant. These inspections found some minor degradations on similar weld joints, and corrective actions were initiated. A corrective action was also initiated to review and improve Preventive Maintenance strategies for the calibrations of similar pressure switches in the secondary plant. The Cause Evaluation also noted that the gasket was incorrectly installed on XS-2-797, but that alone could not have caused the water hammer events and subsequent cracked weld. The FFT concluded that the direct causes of the equipment failures had been properly evaluated and appropriate corrective actions initiated.

**Conclusion: DCPD evaluated the causes of two secondary system steam leaks that occurred during plant startup following Refueling Outage 2R24, one of which required reactor power to be reduced and the generator removed from the grid to facilitate repairs. Appropriate corrective actions were identified and initiated for the equipment failures.**

**Recommendation to the DCISC or PG&E: None.**

### 3.13 Causes and Corrective Actions for Dropped Control Rod Event

The DCISC FFT met with Dan McBride, Operations Services Director; Michael Jackson, Engineering Services Director; and Mike Sullivan, Rod Control Strategic Engineer, to review the causes and corrective actions for a dropped Control Rod event that occurred in August 2024 on Unit 1. This was the DCISC's first review of this topic.

The DCPD staff described the event to the FFT. On August 31, 2024, during a controlled insertion of Control Rod Bank D, 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. A Notification (SAPN 51253070) was initiated for the event, and the FFT requested and was provided a copy of the Notification for its review.

The rod drop was investigated using detailed 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 DCPD collected on all Control Rod Drive Mechanisms during outages were reviewed, and no abnormalities were found for the rod in question (P10). It was then concluded that the most likely cause was buildup of corrosion products on the dashpot internal to the gripper arm mechanism that moves and holds 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 that the rod could be withdrawn and returned to its normal position. The buildup of corrosion products would not impair the safety function of the rods to drop into the core and shut down the reactor. 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 rod to its normal position.

The FFT 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 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. As a part of its corrective actions, DCPD would review this new guidance against current DCPD corrosion product buildup mitigation practices and update its procedures where warranted.

**Conclusion:** DCPD'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.

**Recommendation to the DCISC:** 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)

**Recommendation to PG&E:** None.

### 3.14 Plant Tour

The DCISC FFT met with Byron Briley, Work Control Supervisor, for a tour of DCPD's maintenance shops and offices inside of the plant Protected Area. The DCISC last toured plant areas and observed maintenance activities during its September 2024 Fact-Finding Meeting (Reference 6.14) when it concluded the following:

*The maintenance work observed by the DCISC FFT was performed properly with correct human error prevention practices, correct procedures, and with proper personnel protective equipment.*

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

- Cold (non-radioactive) Machine Shop
- Mechanical Maintenance Shop
- Electrical Maintenance Shop
- Instrumentation and Controls Maintenance Shop

- Mechanical Maintenance Offices

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



DCPD Cold Machine Shop

**Conclusion:** The DCISC Fact-Finding Team toured various DCPD maintenance shops and offices inside of the plant Protected Area and found that all observed areas were clean and in good condition.

**Recommendation to the DCISC or PG&E:** None.

#### 4.0 CONCLUSIONS

- 4.1 The DCPD Nuclear Safety Oversight Committee appeared to be thorough and comprehensive in their evaluations and candid in their reports.
- 4.2 The regular meetings between the DCISC and DCPD Officers and Directors continue to be beneficial for both organizations.

- 4.3 DCPP's program for managing plant and Independent Spent Fuel Storage Installation changes under 10 CFR 50.59 and 72.48, respectively, was being properly implemented and ensured that changes made to the facility were adequately reviewed to determine their impact upon the facility and its licensing basis.**
- 4.4 The meeting with the NRC Resident Inspectors was beneficial, and the DCISC should continue the meetings.**
- 4.5 The November 12, 2024, DCPP Plant Staff Review Committee (PSRC) meeting covered items on the agenda efficiently while allowing adequate time for any participants to question and discuss items of interest in more detail. There was good participation by PSRC attendees.**
- 4.6 PG&E provided information addressing each of several technical topics relevant to the seismic hazard at the DCPP site. Most of the discussion was in response to the DCISC's questions, and the clarifications were helpful and in sufficient depth to provide the needed requested information.**
- 4.7 DCPP's Probabilistic Risk Assessment (PRA) Program was currently emphasizing the development of various risk-based License Amendment Requests to support extended plant operations. Overall, the PRA Program continued to provide excellent support for enhancing the safety of plant operations.**
- 4.8 The November 13, 2024, T-02 Work Week Schedule Review meeting covered items on the agenda efficiently while allowing adequate time for any participants to question and discuss items of interest in more detail.**
- 4.9 DCPP's Chemical Volume Control System and Emergency Core Cooling Systems were all in good health on both units.**
- 4.10 DCPP's August 2024 evaluation by the World Association of Nuclear Operators was positive overall.**
- 4.11 A motor bearing degradation on Auxiliary Saltwater (ASW) Pump 2-2 discovered in the fall of 2023 and its similarity to a 2018 motor bearing failure on ASW Pump 2-1 was reviewed by DCPP and appropriate corrective actions were initiated. PG&E is continuing to evaluate why a 2018 Root Cause Evaluation for a similar motor bearing failure did not result in sufficiently effective procedure changes.**
- 4.12 DCPP properly evaluated the causes of two secondary system steam leaks that occurred during plant startup following Refueling Outage 2R24 one of which required reactor power to be reduced and the generator removed from the grid to facilitate repairs. Appropriate corrective actions were identified and initiated.**
- 4.13 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.

- 4.14 The DCISC Fact-Finding Team toured various DCPD maintenance shops and offices inside of the plant Protected Area and found that all observed areas were clean and in good condition.

## 5.0 RECOMMENDATIONS

### Recommendations to the DCISC:

- 5.1 The DCISC should continue its work to develop its own independent understanding of the seismic hazard at the DCPD site. (D11/24FF-3.6, Section 3.6)
- 5.2 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, Section 3.13)

### Recommendation to PG&E:

- 5.3 PG&E should continue to evaluate why a 2018 Root Cause Evaluation for a failed Auxiliary Saltwater Pump motor bearing did not result in sufficiently effective procedure changes. (P11/24FF-3.11, Section 3.11)

## 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.4, Section 3.12, “Observe Nuclear Safety Oversight Committee (NSOC) Meeting (Remote – November 30, 2023).”
- 6.2 “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,” Scheduled for approval at the October 2025 DCISC Public Meeting, Volume II, Exhibit D.3, Section 3.2, “Meet with DCPD Officer Maureen Zawalick.”
- 6.3 “Diablo Canyon Independent Safety Committee Thirty-Second Annual Report on the Safety of Diablo Canyon Nuclear Power Plant Operations, July 1, 2021 – June 30, 2022,” Approved October 18, 2021, Volume II, Exhibit D.1, Section 3.7, “Program for Plant Changes Under 10 Code of Federal Regulations (CFR) 50.59.”
- 6.4 “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,” Scheduled for approval at the October 2025 DCISC Public Meeting, Volume II, Exhibit

- D.3, Section 3.10, “Meeting with the NRC Senior Resident Inspector and New Resident Inspector.”
- 6.5 Ibid., Exhibit D.3, Section 3.1, “Meet with PG&E Geosciences Group in Oakland CA on August 27, 2024.”
- 6.6 Ibid., Section 3.12, “Discussion of the Recent Report by the Independent Peer Review Panel and Its Implications for Site Seismic Hazard.”
- 6.7 “PG&E's Voluntary Submittal of Information Related to 10 CFR 2.206 Petition Regarding Seismic Core Damage Frequency for DCP, Units 1 and 2,” submitted to the Nuclear Regulatory Commission as PG&E letter DCL-23-103, October 24, 2024, NRC ADAMS Accession Number ML24298A234.
- 6.8 “High Seismic Hazard and Risk at Diablo Canyon Power Plant Due to Thrust Faulting Under the Irish Hills,” report sent from Dr. Peter Bird to the DCISC, October 30, 2024.
- 6.9 “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,” Scheduled for approval at the October 2025 DCISC Public Meeting, Volume II, Exhibit D.2, Section 3.3, “Probabilistic Risk Assessment Program.”
- 6.10 Ibid., Exhibit D.3, Section 3.12, “Discussion of the Recent Report by the IPRP and Its Implications for Site Seismic Hazard.”
- 6.11 “Diablo Canyon Independent Safety Committee Thirty-First Annual Report on the Safety of Diablo Canyon Nuclear Power Plant Operations, July 1, 2020 – June 30, 2021,” Approved October 20, 2021, Volume II, Exhibit D.6, Section 3.9, “Chemical and Volume Control and Emergency Core Cooling Systems.”
- 6.12 “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.4, Section 3.6, “Institute of Nuclear Power Operations (INPO) Update.”
- 6.13 Ibid., Exhibit D.9, Section 3.7, “Cause Evaluation for Auxiliary Saltwater Pump 2-2 Failure.”
- 6.14 “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,” Scheduled for approval at the October 2025 DCISC Public Meeting, Volume II, Exhibit D.3, Section 3.13, “Observe Work in Progress: Calibration of Nuclear Instrumentation.”