

DIABLO CANYON
INDEPENDENT SAFETY COMMITTEE
(www.dcisc.org)

Committee Members: Robert J. Budnitz
Peter Lam
Per F. Peterson

Tuesday & Wednesday
February 15-16, 2022
Avila Lighthouse Suites

Point San Luis Conference Room
First and San Francisco Streets
Avila Beach, California

PUBLIC MEETING AGENDA

This public meeting will be webcast in real time at:
http://www.slo-span.org/local_webcast/DCISC/stream_index.htm and through <http://www.dcisc.org>.

IN ACCORDANCE WITH THE ORDER OF THE SAN LUIS OBISPO COUNTY HEALTH OFFICER
FACE MASKS ARE REQUIRED OF ALL ATTENDEES
REGARDLESS OF VACCINATION STATUS

This meeting is also being produced as a Zoom webinar by AGP Video Inc. and is webcast live on SLO-SPAN at <http://www.slo-span.org> and through <http://www.dcisc.org> and will be broadcast subsequently on San Luis Obispo local government access television, Channel 21.

Zoom Webinar Meeting ID: 894 0915 1994

Zoom Webinar Meeting Passcode: 254216

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PARTICIPATION

You may participate in the DCISC's public meeting in person or in real-time by accessing the Zoom webinar meeting via the weblink and the meeting ID and Passcode given above or by calling any of the phone number provided at the top of this agenda. Instructions on how to access, view and participate in remote meetings are also provided by visiting the DCISC's home page at <http://www.dcisc.org>. Attendees can make oral comments or ask questions of the Committee Members during the webinar meeting by using the "Raise Your Hand" feature or by pressing *9 on your telephone keypad if joining by telephone only. If you are unable to participate in real-time, you may email to dcsafety@dcisc.org with the subject line "Public Comment Item#___" (insert the item number relevant to your comment) or "Public Comment – Non Agenda Item." Comments will be reviewed and distributed before the meeting if received by 5:00 p.m. on Monday, October 18, 2021. Comments received after that will be addressed during the item and/or at the end of the meeting. All comments received will be read into and become part of the record, subject to a time limit determined by the presiding officer. The Committee will have the option to modify its actions on items based on comments received.

Morning Session - 02/15/2022 – 9:00 A.M.

I CALL TO ORDER - ROLL CALL

II INTRODUCTIONS

ADVISEMENT

The Committee may consider at any time requests to change the order of a listed agenda item. Information distributed to the Committee at a public meeting becomes part of the public record of the DCISC. A copy of written material, pictures, etc. must be provided to the Committee's Legal Counsel for this purpose. Correspondence received and sent by the Committee is on file with the Office of the DCISC Legal Counsel and copies are available upon request. Devices for attendees who may be hearing impaired are available upon request. The meeting will be webcast in real time.

III PUBLIC COMMENTS AND COMMUNICATIONS

Anyone wishing to address the Committee on matters not appearing on the Agenda may do so only at this time. The public may comment on any matter listed on the Agenda immediately following the time the matter is considered by the Committee. *There will be a time limit for each speaker as designated by the presiding officer. No action will be taken by the Committee on matters brought up under this item but they may be referred to staff for further study, response or action.*

IV ACCEPTANCE OF MINUTES

- A. Minutes of October 19-20, 2021, Public Meeting. Accept

V ACTION ITEMS

- A. Receive PG&E's Response to DCISC 31st Annual Report on the Safety of Diablo Canyon Operations; July 1, 2020 – June 30, 2021. Accept
- B. Update on Financial Matters and Committee Activities during 2022. Discussion/Action
- C. Discussion of Open Items List

VI COMMITTEE MEMBER REPORTS AND DISCUSSION

- A. Public Outreach, Site Visits and Other Committee Activities; Scheduling and Confirmation of Future Fact-Finding Visits and Public Meetings.
- B. Documents Provided to the Committee.

VII TECHNICAL CONSULTANT & LEGAL COUNSEL REPORTS; RECEIVE, APPROVE AND AUTHORIZE TRANSMITTAL OF FACT-FINDING REPORT TO PG&E

- A. Consultant R. Ferman Wardell.:
Fact-finding Topics; Report on and Acceptance of November 16-17, 2021 Fact Finding Report.
- B. Assistant Legal Counsel Robert W. Rathie:
Administrative, Regulatory and Legal Matters,
Including Approval of a New Agreement with AGP Video.

VIII ADJOURN MORNING MEETING

Afternoon Session – 02/15/2022 – 1:30 P.M.

IX RECONVENE FOR AFTERNOON MEETING

X COMMITTEE MEMBER COMMENTS

XI PUBLIC COMMENTS AND COMMUNICATIONS

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XII INFORMATION ITEMS BEFORE THE COMMITTEE

A. Informational Presentations Requested by the Committee of PG&E:

- 1) Presentation on the State of the Plant: including Key Events, Highlights, Organizational Changes, Status of Retention Programs and Recent Attrition, COVID-19 Pandemic Response, and other Station Activities since the DCISC October 2021 Public Meeting.
- 2) Update on the Status of NRC Performance Indicators, Licensee Event Reports, NRC Inspections Reports and Notices of Violation, Issues Raised by NRC Resident Inspectors, Open Compliance Issues, Current and Future License Amendment Requests, Cross-cutting Aspects of Performance, and other Significant Regulatory Issues/Requests.
- 3) Plans for the 23rd Refueling Outage for Unit 1 (1R23).

XIII TECHNICAL CONSULTANT REPORT & RECEIVE, APPROVE AND AUTHORIZE TRANSMITTAL OF FACT-FINDING REPORT TO PG&E (Cont'd.)

- C. Consultant Richard D. McWhorter Jr.:
Fact-finding Topics; Report on and Acceptance of the
December 7-8, 2021 Fact Finding Report.

XIV ADJOURN AFTERNOON MEETING

Evening Session – 02/15/2022 – 5:30 P.M.

XV RECONVENE FOR EVENING MEETING

XVI COMMITTEE MEMBER COMMENTS

XVII PUBLIC COMMENTS AND COMMUNICATIONS

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XVIII INFORMATION ITEMS BEFORE THE COMMITTEE (Cont'd.)

- B. Informational Presentations Requested by the Committee of PG&E:
 - 4) Status of Retention Programs, Attrition, an Update on the Efforts to Retain Qualified Staff Including Those with Critical Skills, and the Results of the 2021 Operating Plan and Key Elements of the 2022 Operating Plan.
 - 5) Sequence of Events, Causes and Corrective Actions for Unit 2 Manual Trip on October 15, 2021, Due to Feedwater Heater High Water Level.

XIX ADJOURN EVENING MEETING

Morning Session – 02/16/2022 – 9:00 A.M.

XX RECONVENE FOR MORNING MEETING

XXI COMMITTEE MEMBER COMMENTS

XXII PUBLIC COMMENTS AND COMMUNICATIONS

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XXIII INFORMATION ITEMS BEFORE THE COMMITTEE (Cont'd.)

- C. Informational Presentations Requested by the Committee of PG&E:
 - 6) Update on Relicensing of the Independent Spent Fuel Storage Facility, Cask Inspection Activities and Results, and Aging Management Plan Development.

XXIV INFORMATIONAL DISCUSSION BY A REPRESENTATIVE OF THE DIABLO CANYON DECOMMISSIONING ENGAGEMENT PANEL

- A. Update on the Recent Activities of the Diablo Canyon Decommissioning Engagement Panel.

XXV DISCUSSION BY THE COMMITTEE, CONSULTANTS & COUNSEL

Plans for the Post-Shutdown Role of the DCISC Including
Revising the Scope of Post-shutdown Committee Activities
and Engagement of a Technical Consultant to Assist in the
Review of Decommissioning and Spent Fuel Management Issues.

XXVI ADJOURN MORNING MEETING

Afternoon Session - 02/16/2022 - 1:00 P.M.

XXVII RECONVENE FOR AFTERNOON MEETING

XXVIII COMMITTEE MEMBER COMMENTS

XXIX PUBLIC COMMENTS AND COMMUNICATIONS

Anyone wishing to address the Committee on matters not appearing on the Agenda may do so only at this time. The public may comment on any matter listed on the Agenda immediately following the time the matter is considered by the Committee. *There will be a time limit for each speaker as designated by the presiding officer. No action will be taken by the Committee on matters brought up under this item but they may be referred to staff for further study, response or action.*

XXX INFORMATION ITEMS BEFORE THE COMMITTEE (Cont'd.)

- D. Informational Presentations Requested by the Committee of PG&E:
- 7) Leadership Engagement and Oversight that Benefits Operational Safety.

XXXI STAFF & CONSULTANT REPORTS & RECEIVE, APPROVE AND AUTHORIZE TRANSMITTAL OF FACT-FINDING REPORT TO PG&E (Cont'd.)

- D. Consultant R. Ferman Wardell.:
Fact-finding Topics; Report on and Acceptance of
January 11-12, 2022 Fact Finding Report.

XXXII CONCLUDING REMARKS & DISCUSSION BY COMMITTEE MEMBERS OF FUTURE DCISC ACTIVITIES

- A. Future Actions by the Committee.
- B. Further Information to Obtain/Review.
- C. Confirmation of Future Site Visits, and Public Meetings.

XXXIII ADJOURNMENT OF THE ONE HUNDRED AND FIRST PUBLIC MEETING

The DCISC's policy is to schedule its public meetings in locations that are accessible to people with disabilities and to remain in compliance with state guidelines on COVID-19 prevention. The Avila Lighthouse Suites Point San Luis Conference Room is a wheelchair accessible facility. All persons in attendance at the meeting will be required to wear face masks and social distancing protocols will be in place. A person who needs a disability-related accommodation or modification in order to participate in the meeting may make a request by contacting the DCISC office at (800) 439-4688 or by sending a written request to the DCISC office at 857 Cass Street, Ste. D., Monterey, CA 93940. Providing your request at least five business days before the meeting will help ensure availability of the requested accommodation.

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE: February 15, 2022

AGENDA ITEM: IV-A

AGENDA TITLE: Minutes of October 19-20, 2021
Public Meeting

CONSENT [X] ACTION [] INFORMATION []

Staff Summary: Attached are the Minutes which have been prepared from the Committee's one hundredth public meeting held on October 19-20, 2021, held in Avila Beach, CA and as a Zoom webinar.

(Each session was also webcast live in real time and is available for subsequent viewing, archived to the meeting agenda, by visiting the links on the Committee's website at www.disc.org or at www.slospan.org. Meetings are videotaped for later broadcast on Channel 21 in the San Luis Obispo, CA area, the governmental access television channel.)

RECOMMENDED COMMITTEE ACTION: Accept the Minutes by motion

AGENDA PACKET DRAFT – FEBRUARY 1, 2022

**MINUTES
of the
DIABLO CANYON INDEPENDENT SAFETY COMMITTEE'S
OCTOBER 19-20, 2021, PUBLIC MEETING
[For approval at the February 15-16, 2022, Public Meeting.]**

Tuesday & Wednesday
October 19-20, 2021
Avila Beach, California
Also conducted as a Zoom Webinar

Notice of Meeting.

A legal notice of the public meeting and several display advertisements were published in local newspapers and mailed to the media and those persons on the Committee's mailing list. The meeting agenda and the entire agenda packet for the meeting together with the informational presentations made during the meeting were posted on the Committee's website at www.dcisc.org prior to the meeting and the meeting agenda contained information on how to access the webinar using a computer or a telephone. This meeting was also produced as a webinar by AGP Video, Inc. and was webcast live on SLO-SPAN at <http://www.slo-span.org> and through <http://www.dcisc.org> and was subsequently broadcast on San Luis Obispo, California local government access television Channel 21.

I CALL TO ORDER - ROLL CALL

The October 19, 2021, public meeting of the Diablo Canyon Independent Safety Committee (DCISC), the one hundredth public meeting of the Committee, was called to order by Committee Chair Dr. Robert J. Budnitz at 9:00 A.M. Dr. Budnitz briefly reviewed the professional backgrounds and appointment to the DCISC for each of his fellow Members, Dr. Per F. Peterson, the appointee of the Governor of California, and Dr. Peter Lam, the appointee of the Chair of the California Energy Commission. Dr. Lam reported Dr. Budnitz is an internationally recognized expert on reactor seismic safety and serves on the DCISC as the appointee of the California Attorney General.

Present:	Committee Member Robert J. Budnitz Committee Member Peter Lam Committee Member Per F. Peterson
Absent:	None

II INTRODUCTIONS

Dr. Budnitz introduced and briefly reviewed the professional backgrounds of the Committee's Technical Consultants and Assistant Legal Counsel including Technical Consultants Mr. Richard D. McWhorter Jr. and Mr. R. Ferman Wardell, P.E. and DCISC Assistant Legal Counsel Mr. Robert W. Rathie.

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Dr. Budnitz reported there were no changes to the agenda for this public meeting and the meeting is also being livestreamed and conducted as a Zoom webinar and he introduced the technicians present from AGP Video to facilitate the production. Members of the public were invited to use the Zoom webinar's "raise your hand" feature which was monitored by the technicians from AGP Video. Mr. Rathie reported all persons attending in person are required to wear a facial covering in accordance with the San Luis Obispo County Health Officer's order and supplies of face coverings and hand sanitizers are available in the meeting room. Mr. Rathie reminded those present to use discipline with the microphones in order that an accurate transcript can be produced from the audio recording of the meeting.

Dr. Budnitz then introduced Mr. Thomas R. Baldwin, P.E., Pacific Gas & Electric Company (PG&E) Director of Generation Business Planning and Mr. Hector M. Garcia, Diablo Canyon Power Plant (DCPP) Chief Nuclear Officer Support Manager. Dr. Budnitz remarked Mr. Baldwin and Mr. Garcia each play key roles on behalf of PG&E and DCPP in working with the DCISC in coordinating the Committee's activities, providing information and facilitating the Committee's public meetings and the frequent fact-finding visits conducted by a single member and one of the technical consultants.

III PUBLIC COMMENTS AND COMMUNICATIONS

The Chair invited any members of the public present who wished to address remarks to the Committee on items not appearing on the agenda for the public meeting to do so at this time. There was no response to his invitation..

IV ACCEPTANCE OF MINUTES

The item concerned review and acceptance of the Minutes of the Committee's June 23-24, 2021, public meeting conducted in Avila Beach and as a Zoom Webinar. A draft of the June 2021 Minutes was included in the public agenda packet for this meeting. The Members and Consultants reviewed the Minutes and provided corrections and substantive changes to certain references which will be included in the final version of the June 2021 Minutes. The Members and Technical Consultants also discussed some of the follow-up actions to be taken, provided clarification concerning typographical errors and the accuracy of certain references in the Minutes and made editorial comments and changes concerning the draft of the June 2021 Minutes. Dr. Lam expressed appreciation to Mr. Rathie and Ms. Denise Righetti of the Wellington law firm for their work in preparing the Minutes.

The Minutes of the Committee's public meetings in their final accepted form become part of its Annual Reports on Safety of Diablo Canyon Nuclear Power Plant Operations (Annual Report). Dr. Budnitz asked for any public comments and hearing none, upon a motion made by Dr. Budnitz, seconded by Dr. Peterson, the Minutes of the Committee's June 23-24, 2021 public meeting were accepted subject to inclusion of the changes provided to the Committee's Assistant

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Legal Counsel. As revised, the June 2021 Minutes will become a part of the Committee's 31st Annual Report.

V ACTION ITEMS

A. DCISC 31st Annual Report on Safety of Diablo Canyon Operations: July 1, 2020-June 30, 2021.

The Chair requested Consultant Wardell to lead the discussion concerning preparation of the 31st Annual Report covering the period from July 1, 2020 through June 30, 2021. Dr. Peterson observed that in its 31st Annual Report the Committee did not make a recommendation and the report included three concerns. One of the Committee's concerns pertained to the retention of qualified, experienced personnel necessary to operate DCPD at appropriate levels of safety, a second pertained to adequate spending on programs and equipment to preserve appropriate levels of operational safety, and the third concern pertained to the schedule for procurement of proposals and licensing for spent fuel storage casks to achieve movement of all spent fuel from the spent fuel pools within four years of termination of power operation for each unit. Dr. Peterson reported the Committee's assessment is that PG&E is taking appropriate actions to address the Committee's concerns. Mr. Wardell observed that the Committee's overall conclusion was PG&E operated DCPD safely during the annual report period. When complete with the inclusion of PG&E's Response, due within 45 days of the Committee's acceptance of its annual report, the report is provided in both written and electronic versions to the California Public Utilities Commission (CPUC), the Governor, the California Attorney General, and the California Energy Commission as well as distributed to local libraries including the R.E. Kennedy Library at California Polytechnic University at San Luis Obispo (Cal Poly) Poly and other parties on the Committee's distribution list. The Committee's Annual Reports are also made available on the Committee's website at www.dcisc.org. Mr. Wardell reported several drafts were prepared with the assistance of Consultant McWhorter and Assistant Legal Counsel Rathie and were circulated for review and a draft of the Executive Summary was provided for final review and as the basis for discussion regarding approval of the report.

On a motion made by Dr. Lam, seconded by Dr. Peterson, the Committee's 31st Annual Report was accepted and its transmittal to PG&E for its response was approved.

B. Update on Financial Matters and Committee Activities During 2021 & 2022. Dr. Budnitz requested Mr. Rathie to report on this item. Mr. Rathie reported the Committee has received three quarterly disbursements of funds from the grant provided by the PG&E ratepayers for the Committee's operation. He reported the Committee is operating well within the amount of funds provided which he attributed to the careful husbanding of its financial resources and also to the impact of the COVID-19 pandemic which has required many of the Committee's activities to be conducted remotely that would otherwise have been conducted at the plant site. Mr. Rathie reported any funds remaining unspent for calendar year 2021 will be remitted to PG&E for credit to its ratepayers. He further reported that amount of the grant provided for Committee operations increases by 1.5% each year per a CPUC decision.

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Mr. Rathie reported that in accordance with a proposed Second Restatement of the Charter for the DCISC, proposed by the Committee in context of the 2018 Nuclear Decommissioning Cost Triennial Proceeding, the Committee has committed to remain engaged with the Diablo Canyon Decommissioning Engagement Panel and he reported that the Panel is scheduled to hold a discussion concerning management and storage of spent nuclear fuel at a date to be determined during February or March of 2022. Dr. Budnitz reported the Independent Peer Review Panel for Seismic Safety (IPRP), consisting of representatives from various state agencies, meets regularly to review PG&E's seismic safety activities at DCPD and members of the DCISC have frequently attended these meetings. Dr. Budnitz reported the next public meeting of the IPRP is scheduled to be held on November 3, 2021, at 3:00 p.m. at the headquarters of the CPUC in San Francisco and further information may be obtained by contacting either Dr. Budnitz or Mr. David Zizmor of the CPUC Energy Division.

Ms. Sherry Lewis of the group San Luis Obispo Mothers for Peace was recognized. Ms. Lewis requested the email address for Mr. Zizmor and this was subsequently provided to her by an email from Mr. Rathie.

Mr. Rathie directed the Members and Consultants' attention to the green sheets in the public agenda packet which set forth the Committee's planned activities.

B. Discussion of Issues on Open Items List and Process for Revising the Scope of Post-Shutdown Committee Activities..

Dr. Budnitz requested Consultant Wardell lead a review of items on the Open Items List, which he described as an important tool used by the Committee to track and also to follow issues, concerns and information requests identified for subsequent action or receipt during fact-finding of at public meetings. Mr. Wardell stated newly added or changed items were shown in *red italics* on the version of the Open Items List included with the agenda packet and certain items are being identified for closure.

Items discussed or concerning which action was taken included the following¹:

<u>Item</u>	<u>Re:</u>	<u>Action Taken/Next Action</u>
CM-7	In-Service Inspection of Containment	Next Action 3Q22 FF
OE-2	Station Excellence Plan/Oversight Committee	Next Action 2Q22 FF
SE-49	Emergency Diesel Generators (Red Status window)	Next Action 2Q22 FF
SE-50	Maintenance Rule Functional Failures	Next Action 1Q22 FF

¹ Key to some abbreviations used: Fact-finding (FF), Independent Spent Fuel Storage Installation (ISFSI), Public Meeting (PM), Quarter (Q), Quality Verification (QV).

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SF-2	Relative Risk of Cask and Pool Storage Review Report from June 2021 ISFSI Inspection (Identified during review of June 2021 Minutes)	Remove references to Humboldt Bay & SONGS
LD-3	Review Non-License Training Programs	Next Action 12/21 FF
LD-6	Observe Operator License Requalification	Next Action 12/21 FF
6/21 PM-1	QV Findings for Escalation	Next Action 4Q22 FF
6/21 PM-7	Radiography of Unit 2 Generator Stator Rings	Last Action 10/21 PM And Close
6/21 PM-10	Correct Spelling for U.S. Rep. Salud Carbajal	Correct/Close

The Committee reviewed Pages 10 and 11 of the Open Items List which track the dates on which system, component or program reviews were completed or are scheduled. Items identified for review were revised as follows:

DCISC Systems/Component/Program Periodic Review

Program Reviewed

Action Taken

Long-Term Capital Planning Process

Done in Sept. 2020 strike re further review.

During the discussion of Open Item SF-2 Ms. Sherry Lewis was recognized. In response to Ms. Lewis query the Members and Consultants confirmed periodic inspections are performed of the casks containing spent fuel and if cracks or other problems are identified the below ground Cask Transfer Facility at the ISFSI has the capability to serve as the site for opening a cask and inspecting the fuel assemblies if that should be necessary in the future. Mr. Wardell observed that should the fuel be transferred off-site the Cask Transfer Facility would be used to remove the storage canister from the storage cask and to place the storage canister in a transport cask. Dr. Peterson observed that should there be uncertainty as to the integrity of the contents of a storage cask, by placing the canister within a transport cask the fuel can be shipped off-site without further need for repackaging because the integrity of the transport cask does not require that credit be taken for the integrity of its contents and accordingly the two spent fuel pools at DCPD can be decommissioned prior to any future shipment of spent fuel off-site from DCPD. Dr. Peterson remarked there is now strong disagreement about the most effective way to manage spent nuclear fuel and although there is scientific and technical consensus that geologic disposal can provide safe long-term isolation for these materials there is also a constituency that believes these materials should be recycled through reprocessing and should not be placed into permanent geologic disposal. He observed as there is no societal consensus on this issue it will be left for future generations to make a determination.

VI COMMITTEE MEMBER REPORTS AND DISCUSSION

A. Public Outreach, Site Visits and Other Committee Activities: Mr. Rathie reported that due to the COVID-19 pandemic there have been no meetings held with any of the entities that appoint members of the Committee, that is, the Governor, the California Attorney General, or the

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Chair of the California Energy Commission. Dr. Budnitz reported with Special Counsel Mr. Martin Mattes and Mr. Rathe he participated in a telephone conference with representatives of the CPUC Energy Division relative to the recent decision in the 2018 NDCTP. Reference was then made to the green colored pages in the public agenda packet for information on the future activities of the Committee.

The Members confirmed future public meetings of the DCISC for February 15-16, June 22-23, and September 28-29 2022, and the Members and Consultants then scheduled public meetings for September 28-29, 2022, and February 15-16, 2023.

Fact-finding visits were confirmed and scheduled as follows:²

[2021] November 16-17 PL/RFW; December 7-8, PFP/RDM; and

[2022] January 11-12 RJB/RFW; March 23-24 RJB/RDM [w/observance of a Station Oversight Committee meeting]; April 12-13 PFP/RFW [during refueling outage 1R23]; May 18-19 PL/RDM; July 13-14 PFP/RFW; August 16-17 PL/RDM; September 13-14 RJB/RFW; November 8-9 RJB/RDM; December 6-7 PFP/RFW; and

[2023] January 30-31 PL/RDM.

B. Documents Provided to the Committee:

Assistant Legal Counsel Rathie observed that a list of documents received by the DCISC since its last public meeting in June 2021 was included in the public agenda packet for this meeting. Dr. Lam remarked the Committee strives to always conduct its business in a transparent manner.

VII STAFF & CONSULTANT REPORTS & RECEIVE, APPROVE, AND AUTHORIZE TRANSMITTAL OF FACT FINDING REPORTS TO PG&E

A. The Chair requested Consultant McWhorter to provide a report on the July 14-15, 2021, fact-finding visit with Dr. Peterson. Mr. McWhorter reported this was the first time a DCISC fact-finding team (FFT) visited the plant since January 2020 and he then reviewed the topics discussed with PG&E during the July 2021 visit as follows:

➤ Observation of Operations Turnover and Focus Meeting – Mr. McWhorter reported this was an individual turnover between shift foremen and shift supervisors and included review of relevant information such as crew member assignments and work activity schedules for the outgoing and oncoming shifts. The FFT also walked down the Control Room boards with the operators. Mr. McWhorter reported the FFT learned for the first time that a higher level of

² Robert J. Budnitz (RJB), Peter Lam (PL), Richard D. McWhorter Jr. (RDM), Per F. Peterson (PFP), R. Ferman Wardell (RFW).

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vibration on the Unit 2 Main Generator had been observed as early as fall 2019, prior to the generator going off-line due to hydrogen leaks in the summer of 2020, and this observation is part of the Root Cause Evaluation (RCE) for the event. The FFT also listened to the focus briefing of the Operations team which he described as more of a typical turnover meeting with all departments represented and included remote participation by some individuals. Mr. McWhorter reported the FFT concluded the shift manager turnover activities were formal and effective in transferring information between shifts. The focus briefing was well-structured and successful in the transfer of information. Dr. Peterson observed and Mr. McWhorter agreed that the use of a hybrid format with some individual participating remotely is more efficient and represents a practice instituted during the COVID pandemic that should be continued in the future.

➤ Emergency Preparedness Update – the FFT conducted this review remotely. The Emergency Response Organization (ERO) consists of approximately 70 individuals assigned to each of four teams that train and are on-call for two-week periods and are responsible during those periods to respond and be on-site and at the emergency response facilities in the event of an emergency. Training during the period of the COVID pandemic, including remote training, was reviewed by the FFT as was specific training preparing ERO Team “A” for the evaluated emergency exercise planned for September 2021. Mr. McWhorter reported that while the training was effective the ERO has experienced considerable turnover in the last 18 months. He reported DCPD has implemented an efficiency improvement plan to ensure ERO performance is sustained and to identify individuals available to take reserve assignments for each position and to conduct monitoring, walk-throughs with new personnel and dynamic learning activities. Mr. McWhorter reported Mr. Mike Ginn, who formerly led the ERO, has been replaced by Mr. Andy Warwick. Mr. McWhorter reported the FFT concluded ERO staffing and training were being effectively managed.

➤ Meet with NRC Resident Inspectors – Mr. McWhorter reported that since this meeting NRC Senior Resident Inspector Mr. Donald Krause has retired and the senior resident position is presently being filled by an inspector on temporary assignment. **The FFT discussed with both the Senior Resident and the Resident Inspector a failure of the motor for Auxiliary Saltwater System pump 1-1 and a need for the DCISC to follow-up on that issue.** The FFT also raised a question posed by a representative of U.S. Representative Salud Carbajal as to how the NRC views aging equipment issues and whether alternative regulatory standards exist which would permit waivers from NRC regulations as a plant approaches cessation of operations and the FFT was assured that all NRC regulations stay in effect up to the date of closure unless a specific exemption is requested by the station and granted by the NRC. That information was subsequently provided to the Congressman’s office by the Committee’s Assistant Legal Counsel.

➤ Annual Radioactive Effluent Release and Radiological Environmental Operating Reports- Mr. McWhorter reported results of both reports were similar to past results, that is, liquid, gaseous and direct releases from the plant were very low and represented only a small percentage of the regulatory limits for all effluents. He reported an error was identified in the software used to calculate liquid releases which resulted in under reporting the liquid release

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values for the period 2017-2020. An errata sheet was provided for the reports for radioactive effluent releases for those years and Mr. McWhorter observed the corrected results fell well below regulatory limits. Mr. McWhorter reported the Environmental Operating Report assesses the impact of the station on the environment using various samples which are compared to pre-construction sample values and no significant changes in radiation levels in the environment have been identified. Mr. McWhorter reported the small amount of tritium in the groundwater under the station are tracked and remain at levels well below drinking water standards. He observed the primary source of the tritium at DCPD is the washout of gaseous effluent through particulates or condensation from fog which works its way into the groundwater. Dr. Peterson observed all of the groundwater at DCPD discharges to the ocean where it is diluted. Dr. Budnitz remarked the data shows that a person sitting on a fencepost at the closest allowable distance from the plant, drinking local water for a period of one year, would receive a dose that corresponds to spending less than one minute longer on a five-hour flight to New York from San Francisco. Dr. Peterson stated the nuclear industry regulates exposure to its workers under “as low as reasonably achievable” (ALARA) principles while the airline industry does not provide any dosimetry for its employees. Mr. McWhorter reported the FFT found the two programs were effectively implemented and the current reports demonstrate no abnormal releases of radioactivity or abnormal levels of radiation detected in the local environment.

➤ Lessons Learned from Texas Extreme Weather Event – Mr. McWhorter reported this was a review of an operating experience event and was initiated by a question at a DCISC public meeting. The event involved the shutdown of one of four nuclear units in Texas due to extremely cold weather. He reported DCPD reviewed the Operating Experience notice and concluded there were no lessons to be learned for DCPD due to DCPD’s design basis range of temperatures and local temperature data that has been reviewed on several occasions. The local ambient temperature history is in accord with the assumed temperatures in DCPD’s Final Safety Analysis Report (FSAR) and accordingly there was no risk that DCPD would be exposed to such extreme weather as was the Texas plant. The FFT concluded the review was adequate and no further action is necessary.

➤ Meet with DCPD Officer – the DCISC representatives met with DCPD Site Vice President Ms. Paula Gerfen to review items from the visit and other subjects of interest.

➤ Program for Plant Changes Under 10 CFR 50.59 – Mr. McWhorter reported this was the Committee’s first review of this program under which each station is required to manage changes to its physical facilities or procedures and programs which can be accomplished without specific NRC approval. Stations conduct review to ensure that certain criteria are met and new hazards or accident scenarios which had not been previously evaluated are not created or the performance of structures systems or components necessary to mitigate accidents is not degraded. Mr. McWhorter reported three stages are employed in reviewing changes under 10 CFR 50.59: the first is to determine what regulations apply, the second involves a screening evaluation as to whether a more detailed engineering review is required to ensure no impacts to safety, and a third involves performing the full evaluation prior to making the change. The FFT review three complete evaluations during their visit and found each to be very extensive and well

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documented. Mr. McWhorter reported a self-assessment of the 10 CFR 50.59 Program is performed by DCPD every three years and the FFT reviewed the last self-assessment and found it to be thorough. The FFT concluded the 10 CFR 50.59 Program was properly implemented.

➤ Management Observation Program – Mr. McWhorter reported this program involves supervisors observing employees working in the plant and the program has changed over the years. At this time the supervisors' observations are reviewed every two weeks during a Management Observation Program review meeting which is observed by performance improvement coordinators for each department who are responsible to identify larger trends or interdepartmental trends and to enter those into the station's Corrective Action Program. The FFT found the Management Observation Program was being properly implemented.

➤ Emergency Diesel Generators – Mr. McWhorter reported DCPD has six emergency diesel generators (EDGs) with three serving each unit with one EDG for each unit required at all times as a minimum for accident mitigation, particularly concerning a loss of offsite power. The EDGs are provided with an on-site supply of seven days of fuel to support their operation. The FFT found the Unit 1 EDGs to be generally in good health although Unit 1 and Unit 2 continue to have issues with the EDG fuel level switches. Mr. McWhorter reported work is planned on the fuel oil transfer pumps and a license amendment is being sought to increase the amount of time allowed for replacement of pump motors. Unit 2 EDG 2-3 is currently in a Red³ status window due to a significant fuel oil leak that occurred when the EDG 2-3 was run for maintenance and this event resulted in a critical equipment clock reset for the plant as well as a NRC Maintenance Rule functional failure. Mr. McWhorter commented there has been another event EDG 2-3 when it experienced a problem with frequency regulation during a surveillance test which resulted in a Licensee Event Report being submitted to the NRC. He commented the EDGs generally have good reliability and availability performance although the most recent failures will affect reliability data. **EDG 2-3 was expected to return to Green status in the third quarter of 2021 and Mr. McWhorter reported the FFT recommends that the DCISC follow-up on the resolution of the Red status window due to the fuel oil leak and the subsequent frequency regulation failure and include these actions in the Open Items List.** Mr. McWhorter reported the FFT found the EDGs to be generally in a healthy condition and demonstrating good reliability albeit with a Red window for Unit 2. In response to Consultant Wardell's inquiry, Mr. McWhorter reported the leak on EDG 2-3 did not result in its being declared inoperable as it occurred during a surveillance test on the fuel supply to one of the ejectors. The root cause was not complete at the time of the FFT's visit but Mr. McWhorter remarked he expected that the leak would be determined to have been large enough to have impacted operation of the EDG.

➤ Plant Tour – The FFT toured the diesel generator area and the Auxiliary Building, including the radiologically controlled areas, to observe material conditions. This was the first

³ On a scale of Green indicating a healthy performance and White indicating that achievable action plans are in place to return performance to healthy status. A Yellow rating would indicate the indicator shows deficient performance and needs improvement and Red would indicate unsatisfactory performance

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opportunity for the DCISC to tour the plant since January 2020. Mr. McWhorter reported no signs were found that standards had been lowered in the interim and all equipment was clean and visually in good condition with areas well lighted and well maintained. Mr. McWhorter and Dr. Peterson commented the DCPD engineers who accompanied the FFT on this tour were very competent and knowledgeable and conducted a very good pre-job briefing which included radiological conditions and safety information. Dr. Peterson reported wireless radiation monitors are being used in the Auxiliary Building and he remarked the DCISC has been promoting the use of wireless technology but Dr. Peterson observed it was somewhat disappointing to see the technology used in such an *ad hoc* manner. Mr. McWhorter displayed photos taken during the fact-finding on the Turbine Deck and in the area of the spent fuel pools. Dr. Budnitz reported that during his visit in September 2021 the plant was also found to be in excellent physical condition.

➤ Refueling Outage 2R22 Safety Plan – Mr. McWhorter reported this was a routine review and was done post-outage due the refueling outage 2R22 being accelerated to address issues with the Unit 2 Main Generator. He reported the Outage Safety Plan is used to ensure defense-in-depth is maintained throughout shut down activities when different electrical buses and other equipment is being removed from service. The plan ensures critical functions are maintained by classifying each condition on a timeline as being in a Green, Yellow, Orange or Red condition, with Yellow representing N+1 condition where there is enough equipment plus one extra to maintain safety function. The goal is to maintain no less than Yellow condition at all times during a refueling outage and never enter into an Orange or a Red condition. Mr. McWhorter reported during 2R22 the plan experienced three planned Yellow conditions and two additional Yellow windows. One of these additional Yellow windows occurred when the auxiliary and Component Cooling Water System heat exchanger was shut down and a leak was experienced on the heat exchanger which required the exchanger to be taken out of service. A second additional Yellow condition was experienced during 2R22 due to a change in the outage schedule that drove a return to service sooner and entering into lowered inventory earlier than scheduled when offsite power was not available. Overall the FFT concluded the Outage Safety Plan for 2R22 was appropriately managed and implemented to ensure safety during shut down conditions. Dr. Budnitz reported there is a 30-year old guidance document for how to assess outage safety plans and ensure defense-in-depth is maintained. This document is known as the NUMARC 91-06 Report which was endorsed by the NRC and it has been used by every nuclear power plant in the U.S. since that time. Dr. Budnitz reported that after the NUMARC 91-06 guidance was issued several plants did a study of refueling outages using probabilistic risk assessment methods which found that even with the NUMARC guidance there is a small probability that safety could be compromised but the analyses demonstrated that no adjustment of the guidance was necessary as back-up systems providing defense-in-depth were adequate to keep risk low.

➤ Observe Nuclear Safety Oversight Committee (NSOC) Exit Meeting – Mr. McWhorter reported the FFT observed a NSOC exit meeting. The NSOC consists of six executive-level industry peers who review DCPD's performance and the DCISC has been invited to attend NSOC exit meetings and from its observation of those meetings looks for alignment between the NSOC and DCPD's assessment of performance and the DCISC's assessment and has generally

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found that alignment to be present. The discussions at the NSOC meetings are confidential but Mr. McWhorter reported the FFT found the NSOC to be comprehensive in its investigations and candid with its assessments with conclusions generally aligned with the stations own assessments.

➤ Radiation Protection Department Update – Mr. McWhorter reported the Radiation Protection Department performed exceptionally well during 2R22 as measured by collective radiation exposure during the outage achieving an exposure rate of 10.7 person-rem which he described as industry leading if not the best in the industry. Mr. McWhorter reported this was due to source term reduction and real time monitoring using a wireless network in Containment as well as shielding enhancements for work in Containment. The excellent performance was also attributable to the Unit 2 having been shut down for a period before commencement of the outage. Mr. McWhorter report the Radiation Protection Department had an excellence plan focused on maintaining proficiency and high standards amongst its staff. The Radiation Protection Department is not experiencing any staffing issues and Mr. McWhorter attributed this to the fact there is no expectation that there will be an immediate reduction in radiation protection staff following cessation of electrical generation operations as radiation protection will be needed during decommissioning. The FFT concluded the performance of the Radiation Protection Department was exceptional during 2R22 and the excellence plan was appropriately focused.

In response to Dr. Budnitz' query Mr. McWhorter confirmed DCPD provided excellent support to the FFT during the July 2021 fact-finding visit and the Committee expressed its appreciation to Mr. Garcia and to his colleagues at DCPD.

Upon a motion made by Dr. Lam, seconded by Dr. Budnitz, the July 14-15, 2021 Fact Finding Report was accepted by the DCISC and its transmittal to PG&E was authorized. The report will become a part of the Committee's 32nd Annual Report.

B. The Chair requested Assistant Legal Counsel Rathie to provide a report on administrative, regulatory and legal matters.

Mr. Rathie reported the Legal Counsel's office has been engaged in making improvements and updates to the Committee's website and he encouraged the Committee's Consultants to provide photos of Committee activities during fact-finding for posting on the new photo gallery. Mr. Rathie expressed his view that the website is and should remain an important aspect of the Committee's public outreach efforts in the future. He reported information has been included on the website concerning other plant review commissions and committees, the recent Decision in the CPUC 2018 Nuclear Decommissioning Cost Triennial Proceeding (NDCTP), as well as a copy of the spent fuel study conducted by Drs. Garrick and Wakefield. To date in 2021 the website has been visited by an average of 118 visitors each month with the most visitors coming from the United States, South Korea, Canada, Germany and China, in that order. He reported a meeting of the Diablo Canyon Decommissioning Engagement Panel is now scheduled for February or March 2022 and the Committee office will be in contact with Ms. Linda Seeley,

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the Decommissioning Engagement Panel's unofficial liaison to the DCISC, concerning the Panel's activities.

Mr. Rathie reported a Decision in the 2018 NDCTP was recently issued by the CPUC and the Decision adopted the Settlement Agreement in that proceeding which provided for the DCISC's Charter to be amended or restated to provide for a review role for the Committee through the period when all fuel has been removed from wet storage and placed into dry storage at the ISFSI. He reported the Committee approved a Second Restatement of the Committee's Charter at its meeting in February 2020 which provided for such a role and that Second Restatement has been submitted by PG&E for approval by the CPUC in an Advice Letter process as directed by the Decision. Mr. Rathie expressed his appreciation to Messrs. David Zizmor and Antonio Carrejo in the CPUC Energy Division as well as to PG&E's Chief Counsel for DCPD Ms. Jennifer Post, as well as to the DCISC's Special Counsel for Regulatory Matters Mr. Martin Mattes for their assistance in this matter.

Mr. Rathie offer congratulations to Dr. Lam on Dr. Lam's recent reappointment by the Chair of the California Energy Commission to the DCISC for a three-year term.

Mr. Rathie reported that with Technical Consultants McWhorter and Wardell discussions have been conducted at the staff level concerning a process for defining a post-shutdown role for the Committee and it would now be appropriate for a discussion of that topic at this public meeting. Dr. Lam reported he recently participated in a telephone conversation with Ms. Linda Seeley, a Member of the Diablo Canyon Decommissioning Engagement Panel, concerning safety issues in connection with dry cask storage at DCPD and during that conversation he made it clear that his comments did not convey or reflect the consensus of the Committee.

Mr. McWhorter observed that at this time there is approximately three years remaining before Unit 1 is planned to cease operation in November 2024. He observed with both units shutting down and the Committee's Charter having been recently approved for the Committee to continue its safety oversight role until all fuel is moved from wet to dry storage, the Open Items List will require revision as there are certain items that will require either a finite review or, post-shutdown, will no longer require the Committee's review. Mr. McWhorter suggested a process for a general approach to defining the Committee's post-shutdown role and how the Committee will transition to that role would be of value. Dr. Lam remarked the process described by Mr. McWhorter must be transparent and open to public scrutiny. Dr. Peterson agreed that the Open Items List will need to evolve and change and the number of items reviewed by the Committee will drop substantially and accordingly this will have implications for the number of public meetings and fact-findings the Committee continues to conduct. Mr. McWhorter suggested the Committee may want to consider further alignment of its activities with those of the Decommissioning Engagement Panel. Dr. Budnitz remarked when the Committee encounters a technical topic on which none of the members have specific technical expertise an outside expert can be engaged. He observed that while any spent fuel remains within the spent fuel pools, safety and reliability issues are not very different from what the Committee reviews now and some future issues will represent subtopics from the scope of the Committee's present scope of review.

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Dr. Peterson agreed and he commented the risks and hazards associated with spent fuel decrease markedly within a period of a few months after its final offload from a reactor and this points to a continued diligence but likely a reduced effort on the part of the Committee.

Ms. Sherry Lewis representing Mothers for Peace was recognized. Ms. Lewis commented that as time passes the spent fuel pools are going to be increasingly crowded with waste and this represents an increasing danger before fuel begins to be removed. Dr. Budnitz thanked Ms. Lewis for her comment.

Mr. McWhorter stated for the February 2022 public meeting, with the assistance of Consultant Wardell and Mr. Rathie, the Draft Post-Shutdown Matrix prepared previously and now available to the public on the Committee's website will be revised and the Open Items List reviewed in order to inform a discussion at the DCISC's next public meeting on February 15-16, 2022, which may include the periodicity of public meetings and fact-findings.

Mr. Rathie reported the Committee will pause for a short interval for refreshments before convening its evening meeting tonight to recognize this as the 100th public meeting of the DCISC and he welcomed any members of the public in attendance of listening via Zoom or the internet to attend.

VIII ADJOURN MORNING MEETING

The Chair adjourned the morning meeting of the DCISC at 12:00 Noon.

IX RECONVENE FOR AFTERNOON MEETING

The afternoon meeting of the DCISC was convened by the Chair at 1:30 P.M.

X COMMITTEE MEMBER COMMENTS

There were no comments from Members at this time.

XI PUBLIC COMMENTS AND COMMUNICATIONS

Dr. Budnitz invited members of the public to address the Committee on matters not on the agenda for this meeting. There were no comments from members of the public at this time.

XII INFORMATION ITEMS BEFORE THE COMMITTEE

The Chair reported the presentations made to the Committee by PG&E are made at the request of the Committee and he introduced and requested PG&E Director of Generation Business Planning Mr. Thomas Baldwin to introduce the first of the informational presentations for this public meeting.

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Mr. Baldwin introduced DCPD Station Director Mr. Cary Harbor who has given many informational presentations to the Committee in the past. Mr. Harbor has more than 30 years' experience in the nuclear industry including holding leadership positions at DCPD in Engineering, Performance Improvement, Operations, Maintenance, Quality Services and in the Generation Compliance Risk and Business Planning organizations. Mr. Baldwin reported Mr. Harbor held a Senior Reactor Operator License and holds a Bachelor of Science Degree in Nuclear Engineering from the University of California at Santa Barbara as well as a Certificate from Stanford's Certificated Program in Executive Business Administration.

Presentation on the State of the Plant including Key Events, Outages, Highlights, Organizational Changes, Status of Retention Programs and Recent Attrition COVID-19 Pandemic Response, the Station Excellence Plan, and Other Station Activities since the DCISC's June 2021 Public Meeting.

Mr. Harbor thanked the Committee for the opportunity to present remarks and stated during his presentation he would provide an overall review of the state of the plant, plant performance, and the retention of personnel as well as major evolutions and inspections in the area of emergency planning.

Mr. Harbor reported since its last refueling outage in 2020 and to the present time Unit 1 has remained at 100% power with excellent performance. **Until October 15, 2021, Unit 2 was operating at 100% power when it experienced a feedwater tube leak in a feedwater heater which he described as equipment on the secondary side (non- nuclear)⁴ of the plant which serves to heat feedwater before it is returned to the steam generators. Unit 2 was taken offline to protect the turbine and to make repairs which are now underway. Mr. Harbor reported seven tubes have been identified as having failed and are being analyzed and other feedwater heaters are being inspected to determine extent of condition and to ensure no other failures are imminent. Mr. Harbor stated he expects to review this issue with the DCISC at a future fact-finding.** In response to Dr. Peterson's query Mr. Harbor stated an alarm is triggered in the Control Rom when feedwater heater levels decline and dump valves open to add more water to the feedwater heaters which alerts the operators to perform diagnostic review.

Mr. Harbor reported on the impact of the COVID-19 virus on plant operations and stated a number of persons have been vaccinated at DCPD and the COVID-19 pandemic protocols previous in place have been reinstated but there have been no significant issues with respect to an impact on safety from COVID-19. He reported approximately 500 employees out of the total current DCPD workforce of approximately 1,250 persons have continued working remotely. Mr. Harbor in response to Dr. Lam's inquiry confirmed on-site transmission of the virus has been rare and positive rates for DCPD employees have been consistent with data for San Luis Obispo County as a whole with no severe consequential results amongst employees who have contracted

⁴ Primary and secondary side refer, respectively, to the Reactor Coolant System which is used to remove heat from the nuclear reactor and to the Main Steam and Feedwater Systems which provide cooling to the steam generators and generate and provide steam to the turbines.

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the virus. He reported PG&E does not track the number of persons who have sought vaccine exemptions for medical or religious reasons but the company does track positive testing results amongst employees who have been tested. Mr. Harbor reported PG&E continues to review and implement the rules issued by the health authorities .

Mr. Harbor reported the performance of the Unit 2 Main Generator which was challenged by vibration issues continues to be better than before modifications were made to refurbish the generator. The generator continues to operate with very low vibration and continues to be monitored for internal and external vibration.

Mr. Harbor reported Tier 2 of the Employee Retention Program is now in progress and he stated DCP's retention strategy continues to be effective with very low attrition rates for DCP which are consistent with other areas of PG&E's operations. He observed DCP continues to maintain a well-qualified staff to operate the power plant. In response to Consultant McWhorter's observation concerning discussion during fact finding Mr. Harbor stated that while there has been no observable impact on performance from personnel turnover the turnover over the last twelve months has involved amongst others the very experienced Maintenance Director moving to a new position and a designated successor with Maintenance experience moving into that difficult role but Mr. Harbor observed this created another position which needs to be filled. He confirmed the Quality Verification organization (QV) has identified a number of lower level performance issues involving the Maintenance organization and a management review meeting has been implemented to observe behaviors and the implementation of standards which is then further reviewed by the station's leadership team to identify areas needing additional focus by specific individuals or leaders in the form of an improvement plan designed to turn station standards into habits.

Ms. Sherry Lewis of Mothers for Peace was recognized. Ms. Lewis inquired as to the percentage of the DCP workforce that has not changed with respect to turnovers or new assignments. Mr. Harbor stated that a response to Ms. Lewis' inquiry would necessarily be relative to certain time periods but on average before the retention efforts began, prior to the approval of the Joint Proposal⁵, and the announcement DCP would cease operation by 2025 DCP experienced a turnover of approximately 100 to 125 persons of its 1,250 person workforce each year. He stated that at the present time DCP is not seeing a substantially larger number of persons leaving employment at DCP but he reported this attrition previously involved more persons who were later in their careers and now involves those who are in the middle of their careers. Dr. Budnitz remarked different positions require different levels of training and it is the

⁵ The Joint Proposal was entered into by PG&E, together with Friends of the Earth, the Natural Resources Defense Council, Environment California, the International Brotherhood of Electrical Workers Local 1245, Coalition of California Utility Employees and the Alliance for Nuclear Responsibility in June 2016 to retire DCP at the expiration of the current operating licenses for each unit, November 2024 for Unit-1 and August 2025 for Unit-2 and was subsequently approved by the CPUC in its Decision (D) 18-01-022.

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categories of positions that require very rigorous and detailed training that are the hardest to replace in a timely manner and are of the most concern in any analysis of attrition. Dr. Budnitz reported the DCISC regularly reviews this issue during its fact finding visits and is satisfied that DCPD is closely monitoring, has strategic staffing plans in place, and that there has not been an inordinate degree of turnover concerning those positions. Mr. Harbor reported the People Committee at the station is responsible for staffing plans and for making projections concerning attrition in order to permit the plant to stay in front of critical staffing needs and to ensure the right staff members with the requisite training and level of experience continue to be available to operate the power plant safely and reliably. Dr. Budnitz reported the Committee has been provided with and reviewed a list of the back-up personnel identified for designated positions on what he characterized as a depth chart with, in some instances, three-deep designations for certain positions which Dr. Budnitz remarked was a very thorough planning approach to ensuring personnel availability. Mr. McWhorter reported and Mr. Harbor agreed that while the number of persons leaving employment at DCPD may be similar to past experience there is more effort required to manage the skills of personnel to fill the vacancies created. Mr. Harbor observed that as personnel leave DCPD employment earlier in their careers they have significantly more options open to them and this has required what he characterized as a deep dive into assessing the skill sets of each employee to ensure they are not only qualified but are also proficient to perform certain jobs. Dr. Budnitz remarked it is much easier to recruit mid-career personnel when a plant is going to be continuing operation rather than when it is scheduled to terminate operation within a finite period and this will remain an issue for DCPD up to and including the last day of its generation operations. Mr. Harbor agreed and commented this is a continuing process and he remarked that certain opportunities may be available for experienced personnel who may have retired to return to short-term employment at DCPD. **Dr. Budnitz concluded the discussion by stating the DCISC is watching the process of ensuring the availability of adequate staffing as is the NRC.**

Mr. Harbor reported DCPD successfully completed the NRC Evaluated Emergency Planning Exercise. He remarked the exercise involved not just DCPD and PG&E but also San Luis Obispo County, as well as state and federal entities that would respond to an actual event. The exercise was also observed a representative of the DCISC.

Mr. Harbor reported the station has an Excellence Plan which is focused on achieving continual improvement in both safety and performance and has established a Station Oversight Committee which is made up of the highest levels of management in Nuclear Generation, including the Chief Nuclear Officer, the Site Vice President, the Station Director and the Senior Director of Technical, Security and Emergency Services. This Committee uses the Excellence Plan as a measure of challenges to performance to ensure that actions taken to improve performance are taken in a timely manner and are the correct and specific actions to address the issue. He reported the Station Oversight Committee meets monthly and reviews external or internal independent reviews to ensure they are appropriately incorporated in its review. In response to Dr. Lam's observation Mr. Harbor confirmed the Station Oversight Committee has been in place since January 2021 and comments received from the Institute for Nuclear Power

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Operations (INPO) on the establishment and operation of the Station Oversight Committee were favorable.

Mr. Harbor reported the Unit 2 forced outage to address the issue he described with the feedwater heater should not be of long duration and in November 2021 there is a planned curtailment of Unit 2 to 50% power to perform routine tunnel cleaning of ocean debris to prevent debris from entering the condenser. He reported the next refueling outage for Unit 1 is scheduled for March 2022.

The Chair thanked Mr. Harbor for his presentation.

Mr. Baldwin introduced DCPD Manager of Nuclear Regulatory Services Mr. Jim Morris to make the next informational presentation requested by the Committee. Mr. Baldwin reported Mr. Morris has more than 23 years' experience in the nuclear industry and has served as a consulting licensing engineer at the South Texas Project Electric Generating Station, a nuclear power station located southwest of Bay City, Texas, and is an experienced regulatory engineer very familiar with the regulatory compliance process in the nuclear industry.

Update on the Status of NRC Performance Indicators, Licensee Event Reports, NRC Inspection Reports and Notices of Violation, Issues Raised by NRC Resident Inspectors, Open Compliance Issues and Current and Future License Amendment Requests, Cross-Cutting Aspects⁶ of Performance, and Other Significant Regulatory Issues/Requests.

Mr. Morris stated in his presentation he would provide an overview of DCPD's performance from a regulatory perspective over the period since the last public meeting of the DCISC. Mr. Morris stated his report would cover a period of approximately four months of NRC inspections from July to October 2021 which includes approximately 2,000 hours of NRC inspection time. He reported the plant is inspected by two permanent on-site resident inspectors and certain routine inspections are conducted by inspectors dispatched from the NRC's regional headquarters in Arlington, Texas. During this period DCPD met and remained in the highest performance category for the performance expectations for all NRC performance indicators and the plant continues to monitor margin with respect to each performance category. There were no violations of more than minor significance since the last update was provided to the DCISC in June 2021.

Mr. Morris displayed the performance indicators used in the NRC's Regulatory Oversight Process which all remains in Green⁷ status for each of the 16 performance indicators:

⁶ Cross-Cutting Aspect is the performance characteristic of a violation that is either the primary cause of the performance deficiency or the most significant contributing cause.

⁷ The safety significance characterizations used for the performance indicators as either Green (very low), White (low to moderate) Yellow (substantial) or Red (high). A Green non-cited violation indicates very low safety significance, with no impact to public health and safety.

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- Unplanned Scrams per 7000 Critical Hrs.
- Unplanned Power Changes per 7000 Critical Hrs.
- Unplanned Scrams with Complications.
- Safety System Functional Failures.
- Mitigating Systems Performance Index, Emergency AC Power System .
- Mitigating Systems Performance Index, High Pressure Injection System.
- Mitigating Systems Performance Index, Heat Removal System.
- Mitigating Systems Performance Index, Residual Heat Removal System.
- Mitigating Systems Performance Index, Cooling Water Systems.
- Reactor Coolant System Activity.
- Reactor Coolant System Leakage.
- Drill/Exercise Performance.
- ERO Drill Participation.
- Alert & Notification System.
- Occupational Exposure Control Effectiveness.
- Radiological Effluent Occurrence.

Mr. Morris displayed a slide showing the NRC Cross-Cutting Aspects matrix summarizing performance by DCPD over a rolling four-month period which the NRC utilizes in what he described as a proactive approach to identify trends in functional areas and he stated DCPD remains in Green status for all categories for the last four quarters with a White performance category for H12 “Avoid Complacency” having rolled-off the summary at the beginning of this month. Mr. Morris stated DCPD’s performance on cross-cutting aspects is considered to be very good in comparison to other nuclear power plants and the numbers of overall violations at DCPD are also dropping.

One licensee event report (LER) was issued by DCPD since the last DCISC public meeting in June 2021:

➤ Unit 2, LER 2021-001-00, was submitted on 9/20/2021, which documented that Emergency Diesel Generator (EDG) 2-3 operated at less than the required Technical Specification minimum alternating current frequency of 60 Hertz (60 cycles per second) when started in automatic. Manual operation was not affected. Subsequent Engineering evaluation determined that EDG 2-3 had remained capable of performing its safety function during the event.

Mr. Morris reported operators retained the capability to take control of EDG 2-3 and to adjust its frequency of operation. A cause evaluation has been completed for this event.

Mr. Morris stated three inspection reports have been issued since the last public meeting of the DCISC as follows:

- 2021 Open Phase Condition Inspection (2021-012, 07/28/2021);

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- 2nd Quarter 2021 Integrated Inspection Report (2021-002, 08/02/2021); and
- 2021 Design Basis Assurance Inspection (2021-011,09/10/2021).

Mr. Morris reported on the license amendment requests (LARs) that have been approved since the last public meeting of the DCISC in June 2021.

- LAR 238 was issued on 07/08/2021 to the Unit 1 Operating License, which revised Technical Specification (TS) 3.7.8, Auxiliary Saltwater (ASW) System, to allow on a one-time basis up to an additional 72 hours to replace the ASW Pump 1-1 Motor and restore the Pump to an operable condition.
- LARs 239 and 240 were issued on 9/02/2021 to the Unit 1 and 2 Operating Licenses respectively, which revised TS 3.2.1, Heat Flux Hot Channel Factor, and TS 5.6.5, Core Operating Limits Report, to implement an improved Westinghouse calculational methodology.

In response to Consultant Wardell's inquiry Mr. Morris reported that Mr. Mahdi Hayes will be permanently assigned in June of next year as the NRC's Senior Resident Inspector for DCP. In the interim there will be acting senior resident inspectors assigned on a rotating basis. In response to Dr. Lam's inquiry Mr. Morris observed the NRC is training and developing new inspectors to manage turnover and there has been movement of inspectors within NRC Region IV which includes DCP. He stated the inspectors assigned to DCP have been very knowledgeable.

Following Mr. Morris presentation Ms. Sherry Lewis of San Luis Obispo Mother for Peace was recognized. In response to Ms. Lewis question Mr. Morris confirmed that EDG 2-3 was repaired so that it now functions correctly in both automatic and manual startup modes and an "as found condition" analysis was performed of the event that established that had EDG 2-3 been called upon in automatic it remained capable of fulfilling its function. Dr. Budnitz remarked that the LER for EDG 2-3 will be reviewed by plants throughout the country and around the world. Mr. Morris explained in response to Ms. Lewis' query that the colors used on the Performance Indicator slide indicated that the unit's performance in that category met or exceeded the criterion established as a threshold for safety set by the NRC.

The Members and Consultants thanked Mr. Morris for his presentation.

Mr. Baldwin next introduced DCP General Manager of Emergency Preparedness Manager Andrew Warwick. Mr. Baldwin reported Mr. Warwick has more than 16 years' experience in the nuclear power industry with the majority of that experience being in the field of emergency preparedness. Mr. Baldwin stated Mr. Warwick has returned to DCP from a two year assignment with INPO where he acted as a senior evaluator assessing preparedness by plants around the country. Mr. Baldwin reported Mr. Warwick holds a Bachelor of Science Degree in Business Administration from Cal Poly and a Master's Degree in Business Administration from Columbia Southern University.

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Update on Emergency Preparedness Programs and Results of the September 2021 Emergency Planning Exercise.

Mr. Warwick stated the purpose of the NRC evaluated exercise is to demonstrate DCP's ability to protect public health and safety during various emergency conditions. After working with Mr. Mike Ginn, the former Manager of Emergency Preparedness at DCP, on September 18, 2020 the NRC approved the station's request to move the on-site portion of the evaluated exercise into 2021. The State of California and the San Luis Obispo County Office of Emergency Services (OES) also received approval from the Federal Emergency Management Agency (FEMA) to move the off-site portion of the exercise into 2021. Mr. Warwick reported that for the September 2021 Exercise the PG&E Emergency Response Organization (ERO) personnel adequately demonstrated reasonable assurance to protect the health and safety of plant employees and the public.

Mr. Warwick reported two different exercises were conducted during the emergency preparedness exercise. The first was conducted on September 14, 2021, and involved an out-of-sequence focused area drill. He then reviewed the definitions used to assess performance during an exercise as follows:

- Satisfactory: personnel and equipment generally performed as expected.
- Unsatisfactory: personnel and equipment were generally able to perform and complete a required function, however, certain aspects failed to meet expectations.
- Weakness: A level of ERO performance demonstrated during an exercise, drill, or training that would preclude effective implementation of the Emergency Plan if it were to occur during an actual radiological emergency.
- Gap: Failure to meet a demonstration criterion or standard.

Mr. Warwick stated the 2021 exercise focused on DCP's ability to assess and implement the NRC Extreme Damage Mitigation Guidelines (EDMGs) and primarily involved the Technical Support Center (TSC) and the Operations Support Center (OSC) facilities.

Mr. Warwick described the scenario for the first exercise as postulating damage to the spent fuel pool as the primary system damaged due to a part coming from a disintegrating aircraft having penetrating through the roof of the spent fuel pool and damaging the pool's liner from the inside such that water would have leaked out of the spent fuel pool into the Auxiliary Fuel Handling Building. In response to Dr. Peterson's inquiry Mr. Warwick reported the exercise controllers provided visual cues for the participants as to the conditions they were facing regarding the debris in the spent fuel pool area and the resulting crack in the liner and the water leak. He confirmed the drill included reference to the spent fuel pool level indicators which were installed after the accident at the Fukushima Dai-ichi Nuclear Power Plant in Japan in 2011 (Fukushima).

In response to Consultant McWhorter's question about use of the Extreme Damage Mitigations Guidelines during an out-of-sequence event on the first day of the exercise Mr.

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Warwick replied that part of the NRC's Emergency Preparedness regulatory framework includes an eight-year exercise cycle during which the NRC requires its licensees to demonstrate a certain number of elements within a biennial exercise scenario with the other elements required to be demonstrated through normal drill and exercise programs. The implementation of at least one EDMG strategy is one of the elements the NRC requires a demonstration be conducted during a biennial exercise. Some licensees incorporate this into the main drill scenario while others do so as an out-of-sequence activity. In response to Dr. Peterson's inquiry Mr. Warwick reported DCPD is in the process of conducting other performance enhancing opportunities on the remainder of the EDMGs strategies as well as other spent fuel pool strategies and plans to complete the demonstration by the end of 2021.

Dr. Peterson commented that if the Fukushima power plant had the capability to manage extreme damage the results of the accident might have played out differently. The U.S. introduced EDMGs following the terrorist attacks on 9-11-2001. He commented the ability to use portable equipment to restore basic safety function and having adequate training to do so are extraordinarily important in terms of reducing the residual risk associated with the potential to respond to severe accidents. Dr. Peterson stated he was pleased to see the EDMGs were being tested. Mr. Warwick stated that from a scenario design perspective it is challenging to write a scenario that puts the plant into a condition without getting first into the FLEX⁸ Program Support Guidelines and for purposes of the exercise of the EDMG strategies FLEX equipment is rendered unavailable for purposes of the scenario.

Dr. Budnitz observed emergency exercise scenarios come as a complete surprise to the plant staff. Plant staff know that an exercise is planned for a certain date but do not know what the exercise will entail and while county, state and federal agencies have representatives participating the exercise is evaluated by the NRC. Mr. Warwick confirmed Dr. Budnitz' observation and reported exercise development occurs over about a one-year period and DCPD works with all the other agencies to design a scenario that demonstrates all the NRC required elements as well as those of the other agencies such as FEMA which evaluates offsite response capabilities. He reported the scenario is validated using the Simulator facility, a full-scale mock-up of the Unit 1 Control Room, and the confidentiality of the exercise scenario is maintained over the entire time of its development. Mr. Warwick reported part of any exercise is the ability to develop and implement the scenario as well as to demonstrate DCPD's ability to critique and self-identify gaps to its performance which he described as equally important to the ability to demonstrate performance. He reported the next evaluated emergency drill is scheduled during 2022. In response to Consultant McWhorter's query Mr. Warwick confirmed that exercise scenarios are shared within the nuclear industry and operating experience is incorporated through DCPD's participation in the Strategic Teaming and Resource Sharing (STARS) joint utility initiative.

⁸ FLEX is not an acronym but describes a strategy developed by the nuclear industry to provide diverse and flexible coping strategies to address the loss of safety-related systems due to beyond design basis events.

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Concerning the 2021 Evaluated Emergency Exercise Mr. Warwick reported DCPD is awaiting the final inspection and exit report from the NRC and the final after action report from the FEMA.

Mr. Warwick stated performance strengths for the first exercise were identified as follows:

- The ERO team assessed the EDMG strategies to develop trends and plots to provide time estimates to understand how fast water inventory was being lost in order to provide that information to the decisionmakers to identify the best options, but the ERO team also looked ahead to see what other strategies might be needed if the primary option did not work.
- Procedural use and adherence was strong across the ERO team resulting in clear understanding of strategy, risks, and alternate success paths.
- Engineering used the available information to develop trend plots of the spent fuel pool level. Engineering was also able to use the trend plots to estimate times at which the Alert and Site Area Emergency thresholds for spent fuel pool level would be met which helped the team prioritize repair strategies.

Mr. Warwick reported DCPD achieved all 21 of its overall objectives and all 41 of the facility objectives with no weaknesses identified and a few lower level gaps identified which were captured for correction in the critique process and shared with other emergency organization response teams as lessons learned from the 2021 DCPD Evaluated Emergency Exercise. In response to Dr. Budnitz' request Mr. Warwick identified the process by which one ERO team was briefed and dispatched into the field during the exercise to investigate issues or to effect repairs as having experienced a communication gap between the team and the TSC.

Mr. Warwick reported that on September 15, 2021, the day following the out-of-sequence portion of the exercise, the larger, fully integrated, exercise took place which included participation by all emergency response facilities as well as all off-site agencies. He reported that overall DCPD demonstrated effective coordination and communication and effective implementation of the Emergency Plan. For this portion of the exercise DCPD achieved all 65 of its overall objectives and all 191 of its facility objectives. One weakness was identified with the performance of the Uniform Dose Assessment Center (UDAC) related to validating dose assessment input using field monitoring team data and some lower level performance gaps were identified and captured in the critique program for correction and shared as lessons learned.

Mr. Warwick discussed some of the overall strengths from the 2021 exercise:

- Control Room – operating crew responded to transients while implementing the Emergency Plan through effective communication and delegation of tasks.

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➤ Emergency Operations Facility (EOF) – demonstrated strong integration between the ERO and the off-site response organizations. In response to Consultant McWhorter's request Mr. Warwick described the EOF as unique in that it is co-located with San Luis Obispo County's Emergency Services Organization and this facilitates face-to-face communication with County command staff.

Mr. Warwick reported the UDAC also includes representatives from DCP, the County, and the State of California and this further facilitates integration with outside agencies and assists them in attaining a deep understanding of plant conditions. The weakness identified in the UDAC involved performance of dose assessment and validation of that dose assessment using field monitoring survey data. This information is reported back to the UDAC and it is expected that the information will be corroborated against dose projection to make sure the model used for estimating dose generally aligns with the data from the field. During the 2021 exercise the dose assessment staff did not use the procedural guidance to print the maps required to validate the dose assessment model using that field monitoring team survey data. This ultimately led to the lead controller in the UDAC, with the concurrence of the drill director, using an inject [i.e., an unplanned but necessary correction to allow the scenario to proceed] to correct the procedural error. Immediate actions included coaching and remediation with the dose assessment coordinator after the exercise was completed and initiation of a Notification to the Corrective Action Program to drive the identification of the cause of that weakness and to develop corrective actions. In response to Dr. Peterson's query Mr. Warwick confirmed that multiple printers were available to print the maps with the dispersion model data and there are electronic means to share Meteorological Information and Dose Assessment (MIDAS) data which can be made available for display at the UDAC and throughout the EOF. He confirmed the availability of paper copies of procedures and control copy manuals in each facility which are updated to ensure they contain the most current revisions.

In response to Dr. Lam's inquiry Mr. Warwick stated MIDAS is a very sophisticated dose modeling program that includes capabilities to assess very small releases of radioactive material up to a multi-unit, multi-source, large scale release. MIDAS uses plant parameter input from radiation detectors as an input to identify and define the source term being released in total curies and the dispersion model uses on-site and off-site meteorological data to assess how that radiation is going to be dispersed based on wind conditions and other factors. The model includes a number of meteorological inputs due to DCP's site-specific terrain. Mr. Warwick confirmed the software has a range of capabilities and MIDAS is widely used throughout the nuclear industry. Dr. Peterson observed in the event of an actual release the field monitoring teams would be measuring data which differs from that predicted by MIDAS and Mr. Warwick responded dose projection estimates and what is actually seen in the field could vary by as much as a factor of one thousand depending on the input parameters and DCP, when comparing field monitoring team data against dose projection, is looking for accuracy within a factor of ten and data from the field is used to determine whether the input projection model is missing something and to prompt the dose assessment staff to relook at inputs to ensure the event is characterized appropriately by the software. The dose assessment teams in the field use portable detection instruments and are directed to the projected plume path to take measurements and communicate

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by radio with the UDAC when they discover increasing levels of radioactivity in the environment and are directed to locate the edge and centerline of the plume. He confirmed Dr. Peterson's observation these measurements are taken at ground level but Mr. Warwick stated although he plume might be 100 feet in the air, skyshine-wise a field team's data should corroborate in scale sufficiently to identify that the team is in the highest range of detection based also on analysis of the samples taken. Mr. Warwick confirmed San Luis Obispo County's Office of Emergency Services coordinates with the U.S. Department of Energy on the use of fixed and rotary wing aircraft as well as the use of drones in mapping efforts and this is required to be demonstrated once every eight-year emergency exercise cycle as part of the Injection Pathway Exercise to assess and determine, once the radioactive release is stopped and the plume is no longer in the air, where radioactive material has been deposited on the ground as opposed to where the model projected it would be found.

Mr. Warwick reviewed summaries for the 2021 NRC Evaluated Exercise as follow:

- Classifications, Notifications & Protective Action Recommendations – 10 for 10 as far as performing these tasks accurately and timely.
- Emergency Classifications – timely and accurate performance by the Control Room in making an alert declaration and by the EOF in making declarations for a site area emergency and a general emergency.
- Emergency Notifications – timely and accurate performance by the Control Room in making the alert declaration and by the EOF in making declarations for site area emergency and a general emergency.
- Protective Action Recommendations – two declared by the EOF based on the general emergency declaration and one protective action recommendations was upgraded due to dose projection, all completed in a timely and accurate manner with the County and the State notified within 15 minutes of the protective action recommendation declaration and the NRC notified immediately after.

In concluding his presentation Mr. Warwick stated DCP's response during the September 2021 Evaluated Emergency Exercise was successful in demonstrating the station's ability to prioritize actions needed to assure public health and safety. There were no findings or violations related to the exercise and more than 30 items and Notifications were entered into the Corrective Action Program to drive continuous improvement. Consultant McWhorter remarked he observed the exercise and his conclusions were similar to those reported by Mr. Warwick. In response to Consultant McWhorter's inquiry as to the matter of the assessment of Containment pressure during the exercise Mr. Warwick reported a controller card in the vertical board in the Simulator facility failed and rendered the board inoperable and the exercise controller created an inject to the exercise to account for the Containment pressure indications not being available due to the vertical board being inoperable. He reported a miscommunication occurred during delivery of the inject when pressure was reported as 17 pounds per square inch using pounds per square

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inch absolute (PSIA) measurement rather approximately 4 pounds using per square inch gauge (PSIG) measurement and the initial exercise inject had to be corrected with a second inject. In response to Mr. McWhorter's second question Mr. Warwick stated he learned he would be placed in charge of the September 2021 Evaluated Emergency Exercise approximately six weeks prior to the exercise taking place and Mr. McWhorter commended Mr. Warwick for the work Mr. Warwick accomplished in successfully conducting the exercise. Mr. Warwick stated the performance of the exercise was dependent on a strong team effort and he remarked this represents an example of issues the plant is successfully dealing with relative to personnel turnover.

Dr. Budnitz remarked during these types of exercises the focus is on the response to equipment or system failure without necessarily conducting an evaluation during the exercise of cause of the failure. Mr. Warwick replied during an emergency exercise involving equipment failure or plant transients the teams in the TSC and OSC are evaluated on their development of the messaging for each failure and troubleshooting teams are dispatched to assess whether the failure is something that can be immediately fixed. Mr. Warwick described prioritization of mitigation strategies based upon available but for the purposes of the exercise artificially constrained resources as a key skill for ERO personnel. Dr. Peterson remarked that during these exercises the County tends to be overly conservative in decision making concerning protective actions as statistically in exercise scenarios the percentage of accidents that lead to a general emergency is very high and therefore an early decision to go to a protective action looks to be correct but Dr. Peterson observed that protection actions such as starting an actual evacuation come with very real risks and hazards. He remarked emergency exercises tend to test a station's ability to manage the worst case scenarios not the most likely types of scenarios. Mr. Warwick replied that the behaviors and practices of the ERO teams are assessed during these exercises as to implementation of plans and practices that are appropriate to the conditions presented but from the perspective of evaluated exercises, which are intentionally designed to drive offsite participation, a relatively large postulated radiological event is necessary. However, Mr. Warwick reported that one of the elements required to be demonstrated to the NRC and FEMA once every eight years is a scenario that does not get to a general emergency with no, or only a minimal, radiological consequence. Dr. Peterson observed this was important as otherwise the use of MIDAS to model plume behavior and the exercise use of that information to determine what the plume is doing one can create a confirmation bias around how good a tool is. Dr. Peterson remarked that for severe accident models or even for large loss of coolant accidents the Simulator functions well to model plant behavior and operators may too easily trust information from the Control Room as what may actually be happening in the plant. He used the example of pressure indications, given condensation in Containment, as an example where plant performance may differ from simulation. Mr. Warwick responded that in designing challenging scenarios effort is made to exercise the ERO's collective cognitive abilities beyond just following procedural steps so that when conditions or indications are contrary to the model actions are taken to send personnel into the plant to corroborate what is occurring. Dr. Peterson expressed his admiration and appreciation for those persons choose to work in the area of emergency response and he remarked preparation and capability to respond to emergencies is something the United States does quite well.

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The Chair thanked Mr. Warwick for a very informative presentation.

XIII TECHNICAL CONSULTANT REPORTS & RECEIVE, APPROVE, AND AUTHORIZE TRANSMITTAL OF FACT FINDING REPORTS TO PG&E

The Chair requested Consultant Wardell to report on the August 18-19, 2021, fact-finding visit with Dr. Lam. Mr. Wardell reviewed the topics discussed with PG&E during the August fact-finding as follows:

➤ Observe Plant Health Committee (PHC) – Mr. Wardell reported the PHC consists of high level management at the station and meets monthly to review and monitor action items to assure plant systems are in good health. The DCISC FFT observed the August 2021 meeting remotely. Mr. Wardell stated a system or program engineer is usually present to make a presentation to the PHC and the program or system owner attends if the program or system requires corrective action. For the August 2021 PHC meeting the issues addressed included Unit 2 Main Turbine low pressure “C” boot seal leakage, with a plan to resolve by replacing expansion joints; and an issue with “tin whiskers” [crystals which grow on printed circuit boards and can sometimes result in shorting out the boards or causing anomalous signals] having been found within the Eagle 21 solid state Plant Protection System and the Rod Control System, resolved by augmenting the inspection and cleaning program. The FFT found the PHC performs effectively to bring the right personnel together with the correct information and resources to maintain plant system and equipment health.

➤ DCISC Member Meeting with Chief Nuclear Officer – Mr. Wardell reported Dr. Lam met remotely with Senior Vice President Generation and Chief Nuclear Officer Mr. James Welsch. Dr. Lam stated his focus in these meetings is to learn what issues command Mr. Welsch’s attention since their last meeting and also to learn what issues may be of concern to Mr. Welsch. He reported Mr. Welsch generally inquires as to the Committee’s current priorities and whether DCPD staff is providing sufficient assistance and cooperation to the Committee in its inquiries.

➤ DCPD Safety Culture and DCPD Safety Conscious Work Environment (SCWE) – Mr. Wardell reported these two aspects of operation are closely aligned, with SCWE being a subset of Safety Culture. Mr. Wardell reported a presentation on Safety Culture will be made later during his public meeting. He reported SCWE is also related to the Corrective Action Program which serves as the venue where employees are expected and encouraged to report any and all problems in the plant no matter how small or large. The FFT found Safety Culture and SCWE at DCPD to be healthy and positive and Mr. Wardell reported that in his experience this has always been the case at DCPD.

➤ Meet with NRC Resident Inspector – the FFT met with both the Acting Senior Resident and the Resident Inspector to review the role of the DCISC, the emergency License Amendment related to the Auxiliary Saltwater System pump, the EDG fuel leak reviewed earlier by

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Consultant McWhorter, the issue with the “tin whiskers” mentioned previously by Mr. Wardell, and the preparations for the 2021 NRC Evaluated Emergency Exercise.

➤ Institute of Nuclear Power Operations (INPO) Update and INPO Mid-Cycle Evaluation – Mr. Wardell reported confidentiality restrictions for INPO-related information preclude discussion in a public forum of INPO’s assessments. However, Mr. Wardell stated he was able to report that the last evaluation of DCP’s performance was performed in 2019 by the World Association of Nuclear Operators (WANO). Mr. Wardell stated WANO and INPO perform similar functions with WANO being focused on international nuclear operations while INPO focuses on domestic nuclear operations. Mr. Wardell reported DCP received a very good, detailed evaluation from WANO with a few areas for improvement (AFI) identified which the FFT reviewed and determined that most of the actions to address those AFIs were complete. The next INPO evaluation of DCP is scheduled for mid-2022 and in preparation DCP will perform a mid-cycle self-assessment. Dr. Peterson remarked the confidentiality restrictions on information included in INPO/WANO reviews is warranted due to the rigorous and frank assessment performed by these industry peers and he reported that should the DCISC find items in an INPO or WANO evaluation to differ from the DCISC’s current understanding the DCISC would follow up independently of INPO or WANO on any such issue.

➤ Intake Structure Concrete Inspection Update and Tour – Mr. Wardell reported the Intake Structure is the location where the plant takes in seawater for condenser cooling and for the Auxiliary Service Water System which he stated is a safety-related system. The Intake Structure concrete is subject to cracking and spalling and other problems due to its exposure to the ocean environment. Submerged portions of the Intake Structure are inspected every two years by an outside expert when accessible during refueling outages. The FFT reviewed the results of the last inspection of the Intake Structure and some of the corrective actions identified at that time. Mr. Wardell characterized these issues as involving repairs that were not at the time of their identification serious but which could have become serious if left unaddressed. He reported that overall the Intake Structure although showing its age was determined by the contractor to be sound.

➤ Software Quality Assurance – Mr. Wardell stated this is a configuration management program for software at DCP. Software comprises two areas, digital assets that are part of plant equipment and which are often safety-related, and business-related software that does not affect plant operations. The FFT reviewed four separate Software Quality Assurance Plans for plant equipment and found them satisfactory. The FFT concluded the DCP Software Quality Assurance Program is strong and effective.

➤ Chemistry Update – Consultant Wardell reported the FFT conducted a periodic review of chemistry systems which measure performance on the Chemistry Effectiveness Index and he described a slide showing the Reactor Coolant, Feedwater Condensate Steam and the Condenser Systems, i.e., the secondary systems. He depicted and reported that the Steam and Feedwater Systems and the Reactor Coolant System use chemicals to control corrosion. Other chemicals including boric acid are used in the Reactor Coolant System to control reactivity by the

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absorption of neutrons and increase or decrease the reactor power level. The Chemistry Effectiveness Index for both units is presently in Green status and performance is within first quartile of industry performance. Mr. Wardell reported the Quality Verification Department rates chemistry as in Green status and stable. Mr. Wardell reported the FFT found DCP's Chemistry Program to be effective.

➤ **Reactor Coolant System Health** – Mr. Wardell reported the FFT met with the system engineer assigned to the Reactor Coolant System which functions to take away heat from the nuclear core and transfer it to the steam generators where it generates steam on the secondary system. The Reactor Coolant System was in Green health status at the time of the visit and Mr. Wardell displayed a schematic and a three dimensional diagram of the system and its four parallel loops for each reactor, one of which has a pressurizer which keeps pressure on the system. In response to Dr. Budnitz' inquiry as to the most significant aspect of the Reactor Control System which might cause it to decline in system health status Mr. Wardell and Dr. Lam identified the reactor coolant pump seal leakage and the Nuclear Instrumentation System as areas of particular significance along with, in general, the mechanical integrity of the primary system including its large and small piping which is subject to corrosion, as well as the condition of reactor vessel and its susceptibility to pressurized thermal shock which is a topic the Committee has studied extensively in the past. Mr. Wardell reported that DCP has recently replaced all of its reactor coolant pump seals and these replacement seals are expected to function through the end of operation for both units.

Following a motion by Dr. Lam seconded by Dr. Budnitz the August 18-19, 2021 Fact Finding Report was accepted by the Committee.

The Committee Members invited all present to join in a commemoration of this, the one hundredth public meeting of the Diablo Canyon Independent Safety Committee at an informal reception and refreshment break which was held between the afternoon and evening sessions of this public meeting.

IV ADJOURN AFTERNOON MEETING

The Committee having completed all its scheduled business, Dr. Budnitz adjourned the afternoon meeting of the Committee at 4:00 P.M.

XVI RECONVENE FOR EVENING MEETING

Dr. Budnitz reconvened the evening meeting of the DCISC at 5:30 P.M.

XVI COMMITTEE MEMBER COMMENTS

There were no comments by Committee Members at this time.

XVII PUBLIC COMMENTS AND COMMUNICATIONS

Dr. Budnitz invited members of the public to address the Committee on matters not on the agenda for this meeting.

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Mr. David Weisman representing the Alliance for Nuclear Responsibility was recognized. Mr. Weisman commented Mr. Rathie was remiss when in his remarks made earlier during this public meeting concerning the Settlement Agreement in the 2018 NDCTP he did not express the Committee's appreciation to the settling parties including ratepayer advocates in that matter who advocated for the post-shutdown continuation of the DCISC. Mr. Weisman stated those parties included the Alliance for Nuclear Responsibility, Women's Energy Matters and the Utility Reform Network all of whom agreed that the continuation of the DCISC would be of benefit to PG&E's ratepayers. Dr. Budnitz thanked Mr. Weisman for his comments and remarked that there were many members of the public who also took an interest in the proceedings.

The Chair requested Mr. Baldwin continue with the informational presentations requested by the DCISC of PG&E for this public meeting.

XVIII INFORMATION ITEM BEFORE THE COMMITTEE (Cont'd.)

Mr. Baldwin introduced DCP's Senior Director for Engineering, Technical and Emergency Services Mr. Adam Peck. Mr. Baldwin stated Mr. Peck has a Degree in Electrical Engineering from the U.S. Naval Academy, a Masters in Organizational Leadership from Gonzaga University and is a graduate of the Stanford University School of Business Leadership Program. Mr. Baldwin reported Mr. Peck spent five years as an officer in the U.S. Navy serving on a nuclear powered submarine and has been a Licensed Senior Reactor Operator with PG&E for more than ten years.

Final Root Cause Evaluation and Corrective Actions for the Unit 2 Forced Outages to Repair Main Generator Vibration Issues and Hydrogen Leaks.

Mr. Peck reported he would be providing during his remarks an update on the issues concerning the Unit 2 Main Generator including information on the Root Cause Evaluation (RCE) for issues which affected the generator. He stated at this time Unit 2 is off-line for an issue with the feedwater heaters which is unrelated to the issues experienced previously with the generator but prior to this outage Unit 2 operated safely and produced electricity for six months following a number of forced and planned outages to deal with issues on the Main Generator. He observed the Main Generator is part of the non-nuclear side of the plant and those outages were focused on restoring reliable electricity generation. The issues which occasioned those outages were not nuclear safety issues and there was no impact to the health and safety of employees and the public. Dr. Budnitz remarked although not a nuclear safety issue, issues such as DCP's experienced with the Main Generator can reveal various cultural or safety culture or managerial problems that could affect nuclear safety and hence the issues with the Unit 2 Main Generator are appropriate topics for DCISC review.

Mr. Peck reported during the forced and planned outages significant additional instrumentation for enhanced monitoring was installed both internally and externally on the Unit 2 Main Generator based upon the symptoms and potential concerns and he described the results produced over the previous six months as very positive. DCP has seen no change or

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degradation of the generator's operating parameters or performance while working through a number of external grid transients.

Mr. Peck reported the RCE is now complete as are all immediate corrective actions with the exception of the validation of the effectiveness of the actions taken which will be assessed during the next planned refueling outage for Unit 2 in the fall of 2022. He reported PG&E leveraged industry experts including the Electric Power Research Institute (EPRI) and received extensive vendor support including from the manufacturer of the generator to resolve unique technical challenges with the generator. He stated DCPD staff executed safe and error-free shut down and restart of Unit 2 during five outages as follows:

- 2R21 - Generator rewind and rebuild, outage duration from September – December 2019.
- 2Y22 - Weld failure at stator core cooling water (SCCW) inlet water box and hydrogen leak during July 2020.
- 2Z22- Weld failure at stator core cooling water (SCCW) parallel ring and hydrogen leak, outage duration from October – November 2020.
- 2G22- Weld failure at SCCW inlet water box and hydrogen leak, outage duration from December 2020-January 2021.
- 2H22/
- 2R22 – High vibration on end-windings and electrical parallel ring conductor break and hydrogen leak, outage duration from February 2021- April 2021.

Mr. Peck reported the RCE determined Root Cause One was attributed to inadequate mitigation of the bore ring assembly stick-slip phenomenon during core installation. He stated the bore rings are large bands, about 20' in diameter, which provide radial compression and stiffness of the 100-ton stator core. It was discovered that despite having been torqued to the specified value during construction the bore rings had loosened and required tightening on three separate occasions. During 2Z22 the bore rings were tightened and rechecked after an operation which lifted the generator from the frame and were found to have loosened slightly but to still be adequately tight, but the bolts loosened once more after one week. Mr. Peck reported the construction method was not adequate to maintain the stator core as tight as it needed to be. He observed after the stator was rebuilt the vibration of the stator core was slightly less than prior to the rebuild while the vibration of the generator frame was slightly higher and as such this did not indicate a vibration problem with the stator core. In response to Consultant McWhorter's question Mr. Peck replied vibration is monitored on the frame by a vibration probe on the external area while the internal stator core has built-in vibration sensors. After 2Y22 additional monitoring was implemented including accelerometers in areas determined jointly by DCPD, the manufacturer and by an independent vendor. He summarized the correction actions taken for Root Cause One as tightening of the bore ring bolts during forced outages 2Z22 and 2G22 to eliminate stick-slip and verifying tightness during 2H22/2R22.

Mr. Peck reported the RCE determined Root Cause Two to be due to inadequate mitigation for resonant frequencies on the exciter end parallel rings and end windings. He reported a resonant frequency of 120 hertz (Hz) was experienced which he described as a

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frequency which can amplify and cause damage. He reported there were some areas in the end-winding in the parallel ring where the 120 Hz frequency was not fully mitigated. Corrective actions during 2H22/2R22 included extensive “bump testing” and modifications to eliminate the 120 Hz resonance. In response to Consultant Wardell’s inquiry Mr. Peck reported to perform a bump test a calibrated hammer and sensors are applied to a component in order to test for resonant frequency. He reported blocks and bracing were installed to stiffen or dampen the resonant frequency. He summarized the corrective actions taken for Root Cause Two as performance bump testing and modifying the exciter end parallel rings and end-windings as necessary to mitigate any identified resonance.

Mr. Peck displayed and discussed photos, previously reviewed by the DCISC at its June 2021 public meeting, showing:

- The location of the July 2020 outage hydrogen leak due to a crack in fillet weld of the transition box to the SCCW ring manifold for which corrective actions included repair in place, bump testing, and a finite element analysis which identified the corner location as being a high stress area. Mr. Peck reported final corrective actions included eliminated this high stress weld.
- The location of the October 2020 outage hydrogen leak due to a manifold crack in the SCCW parallel ring fillet weld for which corrective actions included capping and redesigning the welds, performing frame-foot loading by lifting the 100-ton frame which was found out of specification and shimmed, bore ring torquing (twice), and a frame vibration analysis. Mr. Peck stated there is hydrogen inside the generator and water inside pipes in the generator and as the hydrogen is at a higher pressure it leaks through any cracks in the piping and is identified in an analysis of the water.
- The location of the December 2020 outage hydrogen leak due to a crack in the fillet weld in the same location as the crack repaired in July 2020, for which corrective actions included replacing the exciter end of the SCCW transition box with a more robust T section and a third torquing of the bore ring bolts and the installation of tuning counterweights to shift the frame resonance away from 120 Hz which was resonant frequency that was driving the breakage in the generator. Following the December 2020 outage Mr. Peck reported frame vibration was slightly below the historical average for the Unit 2 Main Generator prior to the rewind and the stator core was at or below its original baseline vibration.
- The location of the February 2021 outage end winding vibrations for which, at the manufacturer’s suggestion, Unit 2 load was reduced to 80% power and the decision was made based on the proximity of the planned refueling outage to disassemble and inspect. Corrective actions included installation of 37 new braces and blocks on the parallel rings to dampen and remove any resonant condition which resolved the conditions with the parallel rings and the end windings. The thru bolts and building bolts were torqued and tightened and the torquing of the bore ring bolts verified.

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➤ The location of the February 2021 outage end winding vibrations with a consequent small hydrogen leak due to a crack in the double current conducted brazed connection which was confirmed by an air test and found with helium detection. For which the corrective action was to replace the section and radiograph approximately 76 joints in the parallel ring to verify the extent of condition. In response to Dr. Peterson's inquiry Mr. Peck confirmed that the majority of the radiography was done on insulated sections with the fiberglass insulation in place.

Mr. Peck described the baseline for DCPD efforts for frame vibration reduction as being the level of vibration on the generator prior to the rewind and the end result was a reduction in frame vibration levels after the rewind but with vibration still being higher than baseline but not out of industry experience. He reported the frame vibration was brought back to baseline with addition of counterweights and has remained below baseline and stable with addition of supports, bracing and core tightening corrective actions. The stator core vibration was at or below its baseline prior to the rewind.

In concluding his presentation Mr. Peck stated the modifications made have been effective and DCPD continues to monitor the Unit 2 Main Generator to make sure both units are available. Confirmatory actions are scheduled for the next refueling outage for Unit 2 in fall 2022.

Dr. Lam inquired whether there has been a determination as to responsibility for the design, manufacturing, installation or maintenance regarding the generator inadequacies discussed by Mr. Peck to which Mr. Peck replied that DCPD has shared lessons learned and insights through INPO and in terms of the RCE the focus is on what issues DCPD is able to control. He stated and concerning the failures involving the Unit 2 Main Generator there remain open questions as to what caused the failures and inadequacies in terms of construction or design. He reported DCPD provided its specifications to the manufacturer and much of the information concerning the design of what Mr. Peck described as a very complicated machine is proprietary to the manufacturer. In response to Dr. Lam's query Mr. Peck stated he was unable to provide information as to any pending litigation. Dr. Peterson observed details not directly relevant to operational safety are not of interest to the DCISC.

In response to Consultant McWhorter's inquiry as to the period between late 2019 and the summer of 2020 when Mr. Peck reported DCPD observed a higher level of vibration than experienced prior to the stator rewind whether there were any trends that in retrospect might have been identified. Mr. Peck replied as soon as Unit 2 was restarted from the initial stator rewind much time was spent monitoring its performance and a higher level of vibration of the generator frame was observed which continued for some time but the vibration level was determined by the manufacturer to be within industry norms. A small increase in vibration was then observed in September/October 2020. In response to Mr. McWhorter's further inquiry Mr. Peck reported that the vibration data from Unit 2 was compared to Unit 1's historical performance and the matter was reviewed with the turbine generator user's group within the industry with the result that the vibration levels were believed to be within the normal range. He

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commented evidence of what was occurring did not emerge until more operational time had passed.

Dr. Budnitz commented the DCISC received and reviewed the RCE for the Unit 2 Main Generator failures and the summary presented by Mr. Peck was in accord with the RCE but Dr. Budnitz commented the RCE did not address how the generator got into a situation where the mitigations made by DCPD were not adequate. Dr. Budnitz observed concerning the matter of the issues with the Unit 2 Main Generator Stator Refurbishment Project DCPD is left with analyses of what was a reactive situation and without identification of a mechanism by which those issues might have been identified and addressed sooner. Mr. Peck explained that at a certain point in the analysis the issues go beyond DCPD's expertise and enter the realm of proprietary understanding of the generator's design. He reported the manufacturer followed its processes but in the case of the Unit 2 Main Generator those processes were inadequate. Dr. Budnitz agreed and he remarked there may have been some variability involved that was lost in the manufacturing process or the installation or in the choice or variety of the materials used which may never be and could never be known and he observed there may be no way to ever make that determination as these variabilities may in fact be unknowable. Dr. Lam observed the Unit 2 Main Generator was designed, manufactured, installed and maintained and during the four outages and there was ample opportunity for error, as well as there being the possibility of error in the procurement process. Dr. Budnitz commented he conceives of the issue as one of variability and not of error.

Ms. Sherry Lewis of Mothers for Peace was recognized. Ms. Lewis inquired as to how far back in time one might have to go in order to avoid what happened. Dr. Budnitz responded that was precisely the question he was trying to address in his remarks and it may be that no matter how far one goes back in the history of the project, due to certain variabilities it may not be possible to preclude a recurrence.

Mr. David Weisman of the Alliance for Nuclear Responsibility was recognized. Mr. Weisman observed the situation with the replacement of the San Onofre Nuclear Generating Statins (SONGS) steam generators may be analogous to the issues experienced with the DCPD Unit 2 Main Generator when after much investigation and litigation it was determined the computer modeling software used by Mitsubishi, the manufacturer of SONGS replacement steam generators, miscalculated concerning tube contact wear although in the past Mitsubishi fabricated many steam generators for other plants. Mr. Weisman observed it was found that Southern California Edison, the operator of SONGS, made a license amendment request to the NRC in requesting specifications for its replacement steam generators and therefore a causation determination was able to be made. Dr. Budnitz agreed with Mr. Weisman's analogy and remarked that may be the case with the Unit 2 Main Generator refurbishment but it is also possible that no retrospective analysis will ever be sufficiently insightful.

Mr. John Geesman representing the Alliance for Nuclear Responsibility was recognized. Mr. Geesman inquired whether Dr. Budnitz' hypothesis rests on certain assumptions concerning the depth or sufficiency of the RCE and whether it is possible if a greater level of effort was

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made that the RCE would turn up knowable information. Mr. Geesman stated he was curious as to whether Dr. Budnitz in assessing the sufficiency of the RCE was ruling out the existence of any additional pertinent information. Dr. Budnitz stated that in his review of the RCE for the Unit 2 Main Generator issues he came away with the conclusion that further investigative depth would be unlikely to come to a different determination of the reasons for what occurred as it may be that a variable was responsible that even in retrospect would not be noticed. Dr. Budnitz remarked that others may differ from his view. Dr. Peterson questioned the relevance of such an inquiry to the operational safety of the plant and Dr. Budnitz replied that there is no debate as to its operational significance but the issue is relevant to the thoroughness and adequacy of the RCE process. Mr. Peck observed the Unit 2 Main Generator RCE effort was led by three managers with extensive nuclear experience and as the senior engineering lead at the plant he sponsored the effort which was supported by twenty other individuals working long hours for a period of three months and in his eleven-year tenure at DCPD this was by far the greatest effort he has seen devoted to a root cause evaluation.

Dr. Budnitz thanked Mr. Peck for his presentation.

XIX PRESENTATION BY THE DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

Address, Remarks and Discussion in Recognition of the 100th Public Meeting of the DCISC and Comments on the Committee's Future Role by Founding Member Dr. William E. Kastenberg and Legal Counsel Robert R. Wellington.

Dr. Peterson reported the first and the founding Member of the DCISC, Dr. William E. Kastenberg, previously accepted the Committee's invitation to address some remarks to the Committee and the public on the occasion of the Committee's 100th public meeting. However, Dr. Peterson reported Dr. Kastenberg notified him that unfortunately due to another commitment Dr. Kastenberg would be unable to present remarks this evening. Dr. Kastenberg conveyed his apology and his congratulations on the 100th public meeting of the Committee.

The Chair called upon Legal Counsel Robert Wellington to make some remarks concerning the founding and the early days of the Committee's activities and operation.

Mr. Wellington stated he was disappointed that Dr. Kastenberg was unable to present remarks as he believed Dr. Kastenberg would have made comments of interest to the Committee and the public. However, Mr. Wellington stated he would provide his recollection of the activities of the Committee during its earliest days.

Mr. Wellington stated he received a call from Dr. Kastenberg in the late summer of 1989 with information that Dr. Kastenberg, who had very recently been appointed by California Governor George Deukmejian to the Diablo Canyon Independent Safety Committee and was at that time seeking legal counsel and advice concerning establishing and commencing the activities of the Committee which had been newly established by the California Public Utilities

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Commission as one of the terms of a Settlement Agreement in connection with Diablo Canyon Nuclear Power Plant's commencement of operations. Mr. Wellington reported his practice and his law firm has for many years now been singularly devoted to the representation of California public entities. Mr. Wellington reported he flew to Los Angeles and met with Dr. Kastenbergh who was at that time the Chair of the Nuclear Engineering Department at the University of California at Los Angeles. Subsequent to that meeting, Mr. Wellington was engaged as Legal Counsel to the DCISC and shortly after that engagement Dr. Kastenbergh invited Mr. Wellington to tour the power plant. Mr. Wellington remarked this plant tour was conducted personally by Mr. George Maneatis who was then the President of Pacific Gas & Electric Company. Mr. Wellington remarked during the tour with Dr. Kastenbergh he entered Containment and when peering into a large piece of equipment Dr. Kastenbergh set off an alarm on the dosimeter he and all others carried and it was at this juncture Mr. Wellington remarked he made it a principle not to advocate for the practice law within Containment.

Mr. Wellington reported that in 1990 Mr. Warren Owen, retired Executive Vice President of Duke Power Company, was appointed by the Chair of the California Energy Commission and the Committee held its first meeting that year in the Grange Hall in San Luis Obispo. Mr. Wellington remarked the California Attorney General at that time declined to make an appointment which may have been for political reasons. At the first meetings of the Committee a number of policies and procedures prepared by Mr. Wellington's office were adopted for use by the Committee. The first meeting occasioned a great deal of attention and interest in the local community with more than 110 persons in attendance vigorously expressing opposition and support for the plant and for the Committee. Amongst the groups in attendance at that meeting were representatives of the San Luis Obispo Mothers for Peace who were and had been very active in their opposition to DCP. In 1991 Dr. Herbert H. Woodson, formerly the Dean of the University of Texas at Austin College of Engineering was appointed by the California Attorney General to serve on the Committee. Mr. Wellington reported subsequent meetings generated lesser attendance and he remarked that today's meetings can be observed on the internet. Mr. Wellington reported the public outreach role of the Committee has always been an important aspect of the Committee's operation including when possible conducting tours of the power plant with members of the public.

Mr. Wellington displayed a copy of the DCISC's First Annual Report on the Safety of Diablo Canyon Nuclear Power Operations, a thin single volume and he compared it to the two thick volumes which make up the Committee's 30th Annual Report and stated the difference in the size of its reports is indicative of the increase in the depth of the Committee's inquiries into DCP's operation. He observed the DCISC has always striven to be fully transparent in its activities and to remain available to work with all segments of the community.

Dr. Lam commented that Mr. Wellington is a most capable lawyer, and a fellow alumnus of Stanford University and the assistance of the Legal Counsel's Office has been indispensable to the Committee and he expressed his thanks to Mr. Wellington and Mr. Rathie.

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Dr. Budnitz observed that Mr. Maneatis is credited with being the driving force behind the decision by PG&E to build DCPD and the fact that Mr. Maneatis took time to personally escort the DCISC representatives is significant. Dr. Budnitz inquired as to whether during the early days of its operation there was any opposition or resistance evident on the part of PG&E or DCPD to the Committee or its activities. Mr. Wellington replied that as the creation of the Committee was an important part of a CPUC settlement in preparation for the plant to commence commercial operation the PG&E and DCPD representatives accepted the role and the rationale in the CPUC's creation of the Committee and Mr. Wellington stated he never perceived or was made aware of any opposition to the DCISC or that PG&E was in any way difficult for the Committee to deal with in fulfilling its mandate from the CPUC. Dr. Budnitz stated that has also been his experience during his term of service on the Committee. Dr. Lam remarked at one point in time PG&E did move the CPUC to abolish the Committee but this effort was subsequently resolved as part of a settlement agreement.

Dr. Budnitz observed the DCISC commenced its operations with three impeccably credentialed individuals serving as its members and since that time only four other individuals, aside from the Members serving today have served as members of the DCISC.

Ms. Sherry Lewis representing San Luis Obispo Mothers for Peace was recognized. Ms. Lewis stated Mr. Wellington's remarks appeared to her to indicate that all parties got along well from the beginning of the Committee's operation and she stated it was her understanding that in the beginning it was very difficult for Mothers for Peace to talk to the Committee members and there was some perceived hostility in the relationship. Ms. Lewis stated that is not the case now. She remarked other representatives of Mothers for Peace may have insight into past interactions with the Committee but she stated she was glad the Committee was present in the community and she observed no other nuclear power plant has a similar committee to the DCISC and this is partly due to the opposition that has been raised throughout DCPD's entire history. Mr. Wellington agreed with Ms. Lewis and stated it was not his intent to whitewash the relationship between Mothers for Peace and the DCISC during the early days of the Committee's operations and many members of Mothers for Peace during that time would not interact with the Committee, perceiving it to be a "lapdog" for PG&E.

The Members then took up the matter of a Resolution drafted by the Legal Counsel's Office in recognition of the 100th public meeting of the Committee. That resolution, summarized by Mr. Wellington, recognized the history of the DCISC, the contributions of all of its members, technical consultants, legal counsel, and support staff who were named in the resolution. On a motion by Dr. Lam, seconded by Dr. Peterson, the DCISC Members unanimously adopted Resolution No. 2021-01 "A Resolution of the Diablo Canyon Independent Safety Committee on the Occasion of its 100th Public Meeting."

XX ADJOURN EVENING MEETING

The Chair adjourned the evening meeting of the Committee at 7:00 P.M.

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XXI RECONVENE FOR MORNING MEETING

The October 20, 2021, public meeting of the Diablo Canyon Independent Safety Committee was called to order by its Chair, Dr. Robert J. Budnitz at 9:00 A.M. Dr. Budnitz welcomed those persons attending in person and by Zoom Webinar and watching the proceedings on live streaming video.

XXII COMMITTEE MEMBER COMMENTS

There were no comments by Members of the Committee at this time.

XXIII PUBLIC COMMENTS AND COMMUNICATION

The Chair reviewed the invitation to address remarks to the Committee on matters not on the agenda for this public meeting and invited any comments from members of the public who wished to address the Committee to do so now.

Ms. Jane Swanson representing San Luis Obispo Mothers for Peace was recognized. Ms. Swanson stated she wished to add some remarks concerning the retrospective discussion held during the evening session as she has been active with Mothers for Peace for some time including during the period of Mothers for Peace's intervention in NRC proceedings regarding DCPD in 1973 to 1984 opposing the granting of operating licenses for the plant. She reported Mothers for Peace were frustrated when the licenses for DCPD were "grandfathered" by the NRC after funds were spent retrofitting the plant to correct design errors made on one of its units. Ms. Swanson stated Mothers for Peace initially viewed the creation of the DCISC as confirmation that safety would remain the paramount concern in DCPD's operation and she attended the first meetings of the DCISC but she stated Mothers for Peace were very disillusioned when they realized the DCISC had no authority over PG&E. She remarked she understands that relationship today but initially this fact was not reassuring. She reported when representatives of Mothers for Peace asked questions or made statements at the early public meetings of the DCISC they received very little feedback and did not feel treated with respect. She observed many members of Mothers for Peace stopped going to the meetings and at the time Ms. Swanson confirmed she viewed the Committee as being a "paper tiger." She reported some years later comments from members of Mothers for Peace were that the Committee's responses to the public were different and she and Ms. Sherry Lewis and others began regularly attending DCISC public meetings. Ms. Swanson stated at the present time Mothers for Peace have no complaints about the responsiveness of the DCISC and they learn much from its meetings and the information provided by PG&E during those meetings. Ms. Swanson thanked the Committee for its work.

Dr. Peterson stated he appreciated Ms. Swanson's comments and he observed that in his view one of the aspects of its operation that makes the DCISC effective in being able to identify and bring forward information on questions from members of the public is the fact that it has no authority to direct PG&E. The Committee can provide its recommendations to PG&E, the CPUC and to the entities that appoint its members but the key aspect to recognize is that if a review

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body has specific regulatory authority that authority comes with specific responsibilities which can constrain the reviewing body's ability to do certain things. He observed the NRC in its public meetings is quite constrained in terms of the information it can provide and the level at which the NRC can respond to questions. Dr. Peterson stated a committee similar to the DCISC was established by the U.S. Department of Energy (DOE) in connection with an independent technical review of the design and licensing activities in connection with the Waste Isolation Pilot Plant in New Mexico. Dr. Peterson stated the ability to have that independent technical assessment was a key factor in the DOE's ability to successfully get the necessary state permits to bring the facility into operation and the results have been that a considerable volume of transuranic waste from the Los Alamos Laboratory has now placed in a geologic depository. Dr. Peterson remarked whenever the DCISC has made a recommendation to PG&E the utility has always been responsive. Dr. Peterson observed the DCISC is not constrained in the same manner as is the NRC regarding what constitutes safety and as other regulatory agencies have involvement, the NRC actually has a limited scope of what it can do with respect to safety. He concluded his response by stating the fact the DCISC has no specific authority creates its ability to look into questions that are of great and deep interest to members of the public and this is probably the most important and unique value of having a committee such as the DCISC.

Dr. Lam remarked even though the DCISC has no regulatory or enforcement authority it does have unique interest in DCP's operations and the present membership of the Committee brings over 150 years of technical and policy expertise to its review. The Committee is able to pursue issues of technical and procedural safety significance independently and has no idle curiosity. He reported that on almost every occasion when meeting with DCP senior management the question is raised as to whether the technical and managerial plant staff is being responsive to the Committee's inquiries and it is through this cooperation that some significant safety matters are addressed and resolved.

Mr. Eric Green was recognized. Mr. Green stated he agreed with Ms. Swanson's comments in terms of the Committee's progress in its responsiveness to the public. He remarked the session to be conducted this morning on decommissioning the power plant presents a new opportunity and direction for the DCISC which is to become involved in the land use permits to be processed under the California Environmental Quality Act (CEQA) by the County of San Luis Obispo as the lead agency for decommissioning. He described two issues he recommends to the Committee for its involvement including the decommissioning application process and the issue of the casks to be used for storage of the nuclear fuel. He remarked San Luis Obispo County and the public have no power concerning PG&E's choice of a cask design and how the waste is to be handled but he observed that does not mean there is no ability under CEQA to accurately characterize and require mitigation to the extent feasible of the hazards presented by the fuel. Mr. Green gave as an example the seismic considerations which are analyzed under CEQA and he suggested the same approach needs to be taken over the selection of the cask design and plans for the fuel. He reported there is a scoping period concerning the Environmental Impact Report which is open to input from the public and the members of the DCISC could participate in this scoping process either as a group or individually.

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Ms. Rochelle Becker of the Alliance for Nuclear Responsibility was recognized. Ms. Becker reported that she previously provided to the Committee a copy of her letter to the CPUC and the California Energy Commission recommending that the CPUC implement a term limit for services as a member of the DCISC. Ms. Becker remarked that while the Committee presently provides its expertise on the operation of the plant the transition to decommissioning places DCPD at one end of the bathtub curve⁹ and she remarked that her suggestion as to term limits has nothing to do with the qualifications of the present membership of the DCISC but she contrasted the long service on the Committee of its present members with the NRC's policy of rotating its resident inspectors every seven years. She remarked some of the changes to the Committee's operations over the years since it was founded have been the results of petitions for modification she filed and that in taking this position she was not expressing dislike for any of the current DCISC Members but there is a concern that over time one can become too comfortable with the utility and its employees and it is her belief that new persons with backgrounds in decommissioning would enhance the Committee. Ms. Becker closed her remarks by commented that she wanted to address her concern and recommendation to the Committee directly rather than by just sending the letter.

The Chair thanked all the members of the public for their inciteful and helpful comments.

XXIV INFORMATION ITEMS BEFORE THE COMMITTEE (Cont'd.)

The Chair requested Mr. Baldwin to continue with the informational presentations for this public meeting requested by the Committee. Mr. Baldwin introduced Mr. Tom Jones, Director of Strategic Initiatives for PG&E's Generation line of business and reported Mr. Jones oversees regulatory and external strategies for DCPD and PG&E's Humboldt Bay Nuclear Power Plant. Mr. Jones has more than ten years' experience with local governmental relations and has held and holds a number of roles on local community development committees and the Chamber of Commerce. Mr. Baldwin reported Mr. Jones joined PG&E in 2001 after having previously worked for State Senator O'Connell as his District Director. Since joining PG&E Mr. Jones has supported projects including replacement of the steam generators and licensing of the ISFSI and was a key participant in the matter of the Joint Proposal which provided for the cessation of DCPD operations at the end of its operating licenses. Mr. Jones holds a degree from the University of California at Santa Barbara and resides in Atascadero, California.

Update on Decommissioning Planning, Nuclear Decommissioning Cost Triennial Proceedings, License Amendments, and Spent Fuel Cask Procurement

⁹ The bathtub curve is widely used in reliability engineering. It describes a particular form of the hazard function which comprises three parts: a decreasing failure rate, known as early failures, a constant failure rate, known as random failures, and an increasing failure rate, known as wear-out failures. The name is derived from the cross-sectional shape of a bathtub: steep sides and a flat bottom.

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Mr. Jones reported DCPD is currently processing all regulatory approvals required for the decommissioning process in parallel, that is, seeking an extension for the present dry cask storage system at the same time as it is seeking a new dry cask storage system while concurrently pursuing license amendments from the NRC to step-down licensing requirements and pursuing discretionary permits from the State of California and the County of San Luis Obispo for land use matters. He reported the CPUC recently concluded its 2018 Nuclear Decommissioning Cost Triennial Proceeding (NDCTP) and in that proceeding provided full funding for the decommissioning budget and he commented that the budget informs the scope of the decommissioning effort and the scope informs the process for obtaining the required permits and licenses. He commented that doing all these activities in parallel is more complex but so far DCPD is obtaining good results and is on or ahead of scheduled for each discretionary action. He reported the goal is to have all discretionary approvals in hand prior to Unit 2 ceasing operation so DCPD can proceed directly into decommissioning which has been the concept since the Joint Proposal was entered into in 2016 and in this way a certain portion of the plant's workforce can be retained at a significant cost savings. Mr. Jones commented the DCPD transmission corridor is a valuable asset to California and provides opportunities for off-shore wind power production.

Mr. Jones presented and discussed a slide showing the Diablo Canyon Decommissioning Path tracking and showing a timeline for the various activities in connection with decommissioning the power plant and which indicated the current status of those activities and he described the finish line for all activities as being the end of 2024. He stated this goal is based upon extensive benchmarking and observed that the San Onofre Nuclear Generating Station (SONGS) elected not to continue operation in 2013 and SONGS obtained its permits in 2019 and 2020 and the six to seven year window established for DCPD fits not only with SONGS' experience but also with the permitting and licensing windows for the original ISFSI and dry cask storage system as well as for the steam generator replacement project. Mr. Jones reported that since agreement was reached and approval received for the Joint Proposal the discussion on how to accomplish various activities is less philosophical and more technical in nature with the goal being to complete the project safely and efficiently, have all fuel stored at the ISFSI and ultimately obtain release the 10 CFR Part 50 license from the NRC which will create new opportunities for the site. He observed this early planning results in cost savings through preservation of the decommissioning trust funds and the CPUC's approval of the amount of \$3.9 billion in the 2018 NDCTP greatly reduces both project and schedule risk.

Mr. Jones reviewed a slide showing the timeline for the dry cask storage Requests for Proposals for a modified or new dry cask storage system and reported PG&E is still in active negotiations with multiple proposers and therefore detailed information cannot be released at this time but a decision is expected during the first quarter of 2022. He reported concerning the request for proposals that public input was received, a study was commissioned and conducted by UCLA, input was received from the Diablo Canyon Decommissioning Engagement Panel and from the NRC and the California Energy Commission conducted a separate technical review. In response to Dr. Lam's inquiry Mr. Jones confirmed that at the present time there are no empty fuel storage casks on-site at DCPD. Mr. Jones stated the procurement time for the current casks is

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approximately 18 months and there are no plans at present to conduct a spent fuel loading campaign. Mr. Jones stated DCPD retains the ability under its present license to add a cask under the current system but there is adequate space within the spent fuel pools for the remainder of operations. In response to Consultant McWhorter's inquiry Mr. Jones confirmed DCPD has projected, with some margin, the NRC review and approval of a license for a new cask design in or by 2025 depending upon the vendor selected. Mr. Jones stated there are differing ranges of licensing activity between the different cask designs under consideration. He reported the goal is to complete off-loading all fuel by 2029, four years after cessation of operation and in order to do so DCPD would need to commence loading campaigns during 2027-2028. Mr. Jones reported this was based upon an assumption of 32 assemblies per cask and would require loading approximately 80 casks in two years. He reported in prior loading campaigns DCPD averaged loading one cask every six days.

In response to Dr. Lam's question Mr. Jones responded the establishment of a non-qualified trust for additional revenues is an important aspect of the schedule because under existing NRC regulations DCPD could not access funds for physical work until 45-60 days after cessation of operations. With the non-qualified trust, governed by the state, funds are available and contracts can be entered into for work outside the narrow window provided by NRC regulation and this has contributed to greatly reducing the project schedule and the risk. He surmised that with funds to be collected in 2022-2023 there could be adequate funding to cover the entire cost of the dry cask storage system and manufacturing of that system can begin prior to cessation of operations. Mr. Jones observed DCPD has what he characterized as an immense, 10 CFR Part 50 license area and work can begin during 2023 or 2024 to narrow that Part 50 license area to a more manageable area and the non-qualified trust enables PG&E and its contractors to advance the project schedule in a fashion that has not been seen before in the decommissioning of a nuclear power plant. He confirmed Dr. Lam's observation that based upon the information he provided even if PG&E were unable to procure a new dry cask storage system the schedule is adequate because it is the NRC's default regulation that applies to decommissioning and the NRC regulations provide for up to 60 years to complete decommissioning and DCPD could if necessary continue into decommissioning using its currently licensed dry cask storage system. Mr. Jones observed that with the decommissioning of the Humboldt Bay Power Plant, which ceased operation in 1976, PG&E has now sought retirement of the Part 50 license for Humboldt Bay this year.

Mr. Jones stated that in June 2021 DCPD performed an inspection of the ISFSI in connection with renewal of the license for the existing dry storage system which expires in 2024 and completed an inspection of the inside of certain casks which the DCISC was invited to witness. During the week of October 25, 2021, two of the casks at the ISFSI will be lifted with the transporter and a robotic camera will inspect the bottom surface for any signs of a pathway for corrosive products. He reported these inspection results will be made public when the license renewal application is submitted to the NRC and the renewal application is due to be submitted on or before March 22, 2022. Dr. Budnitz reported an invitation was extended to the DCISC to be present when the bottom surfaces of the two casks are inspected but none of the DCISC members or consultants are expected to be able to attend. Mr. Jones stated the inspections will be

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documented by video and anything found will be documented in the Corrective Action Program and the results shared with the Holtec International, the firm which manufactures the current casks, and with the industry through DCPD's participation in the Holtec Users Group. Mr. Jones reported the ISFSI licensing activity requires a referral under the Coastal Zone Management Act to the California Coastal Commission but he reported there will be no impact on coastal resources as there are no changes proposed from the previously permitted activities at the ISFSI and the land use mitigations require by the Coastal Commission and by San Luis Obispo County for both the current and future ISFSI's system licenses are ongoing and in perpetuity and are therefore applicable to the renewal of the license for the existing system or to a license for a new system.

Mr. Jones reported with the two parallel licensing activities now underway for the existing and a modified dry storage system DCPD will be on a licensing plateau until the mid-2060s. He reported the NRC previously licensed dry cask storage systems for 20 years with a 40-year renewal but that has now changed to provide for both a 40-year license and a 40-year license renewal. In response to Consultant McWhorter's question as to how the new cask design fits within the license renewal Mr. Jones responded that the answer is dependent upon the vendor selected and the new system could be under the existing 10 CFR Part 50 License and then application could be made later to make it a part of a 10 CFR Part 72 site-specific license. He reported PG&E has multiple licensing paths that are feasible for any system selected but the new system is not part of the license renewal application for the ISFSI as it will be a new application or a modification of an existing license which could come under either 10 CFR Part 50 or 10 CFR Part 72 but he confirmed that in either event there are two approvals to be issued. In response to Mr. McWhorter's comment that under the current system the Technical Specification off-load time is estimated to be up to 13 years Mr. Jones replied that while the current system cannot off-load the fuel in four years, part of the reason for not off-loading fuel now is to ensure sufficient fuel is available to achieve the thermal balance needed for a new cask system. Every vendor submitting a proposal was provided under a non-disclosure agreement with the characteristics of DCPD's current and future expected fuel use through the end of the license period and the vendors used that data to model dose and thermal capability for their design for a new cask using regionalized loading aspects. He confirmed Consultant McWhorter's observation that the 13-year period for use of the current system commences in 2025 and runs until 2038 for fuel off-load unless new casks are obtained.

In response to Dr. Lam's question Mr. Jones confirmed DCPD is recruiting across multi-disciplines in support of decommissioning and he remarked that from 2016 through 2024 the DCPD Decommissioning organization is ostensibly a licensing, permitting, engineering and finance organization and during that time a strong team has been developed. Mr. Jones reported that in the history of U.S. nuclear power plants to date only ten facility licenses have been successfully retired and DCPD's licenses would be the eleventh. He remarked a number of DCPD personnel specialized in site characteristics will be retained and retrained.

Mr. Jones stated PG&E will announce its decommissioning contracting strategy by the end of 2021 when it submits its 2021 Nuclear Decommissioning Cost Triennial Proceeding to the

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CPUC which will inform the scope of what the utility takes on and what may be transferred to another party. He reported there are five basic decommissioning models: (1) self-perform where the utility does everything; (2) hybrid where the utility functions as its own general contractor; (3) use of decommissioning general contractor where the utility retains a smaller workforce and oversees the decommissioning general contractor's activities; (4) license transfer where the utility transfers the license to a third party on a temporary basis for that party to act as custodian of all aspects under the 10 CFR Part 50 License and return the license to the utility for termination; and (5) license transfer and asset sale where the utility sells the trust fund and the plant site and facilities to a separate demolition contractor. He remarked that the decision to be made as to which model PG&E will use will also inform the question of recruitment to support decommissioning but the DCPD Decommissioning organization has a base team in place now for planning, engineering, finance, regulatory and permitting activities and fuel management.

In concluding his presentation, Mr. Jones stated the nine-year period since approval of the Joint Proposal has allowed for conservative planning which in turn has reduced pressure on rates charged to PG&E's customers because the decommissioning funds have increased more than anticipated.

Ms. Linda Seeley was recognized. Ms. Seeley inquired whether in the event of some unforeseen problem occurring prior to shut down of the power plant or a delay in procurement of the dry storage casks and there was the need to remove fuel from the spent fuel pools before shutdown whether it would be prudent to have at least one cask on-hand. She also stated that the Diablo Canyon Decommissioning Engagement Panel, of which she is a member, recommended that PG&E retain possession of DCPD and not sell the plant to a decommissioning company because the profit motive with reference to the decommissioning funds could result in safety compromises and she further inquired concerning the non-qualified trust discussed by Mr. Jones as to which entity regulates the funds.

Dr. Budnitz confirmed there are at present no empty casks available at DCPD and while he confirmed there are safety implications from this situation it is not something about which the DCISC has any input other than observing the operation of the spent fuel pools and confirming its conclusion that dry cask storage is safer than storage in the spent fuel pools. Dr. Lam remarked Ms. Seeley's observation about the lack of available casks goes to the issue of a lack of redundancy and he commented the first principle of nuclear safety is to maintain redundancy, diversity and physical separation. Dr. Budnitz observed in his view the safety issue was not one of a lack of redundancy but of a reduction in redundancy. Dr. Peterson commented that it is important to understand that the hazards associated with spent fuel pool storage of nuclear fuel is dominated by freshly offloaded fuel and the hazard does not change at all depending on the inventory of older fuel. Dr. Peterson observed under the license it is preferred to have older assemblies surrounding younger fuel from a safety perspective in the event water inventory was lost from a spent fuel pool. Dr. Peterson reported the presence and quantity of older fuel assemblies provides a sufficiently large inventory such that an off-loading campaign can be completed approximately three to four years earlier than if there were fewer older fuel assemblies in a spent fuel pool and this fact represents an improvement to safety and therefore it

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is not correct to say that rapidly off-loading the spent fuel pools is safer. He observed that federal taxpayers are paying for fuel storage and the financial obligation is reduced by following a course that allows for a more rapid offload over a longer term. Dr. Budnitz stated he was in agreement with Dr. Peterson but the DCISC can only express its view on the relative safety of wet versus dry storage and has no ability to affect the schedule adopted by PG&E for wet storage and transfer to dry storage for DCP's fuel.

With reference to the option discussed by Mr. Jones and questioned by Ms. Seeley for the sale of the plant to a decommissioning contractor Dr. Budnitz reported the role of the DCISC in that event would be to independently observe and report publicly and make recommendations as to any compromise to safety.

Concerning the non-qualified trust funds Mr. Jones reported the CPUC is the regulatory authority overseeing and regulating the rate collection from customers to cover the appropriate cost of decommissioning a nuclear facility and conducts prudency reviews of the expenditure of the funds collected. He commented other decommissioning operators may have a profit motive in decommissioning but PG&E does not as the utility realizes no return on decommissioning and any savings are remitted back to its customers. Any overages or disallowances in the prudency reviews are borne by PG&E shareholders. Mr. Jones reported as to the \$3.9 million in the decommissioning trust, the transfer of any of those funds to a decommissioning contractor would be subject to negotiation and any funds encumbered by rate dollars are subject to a Section 851 proceeding before the CPUC which must approve disposition of the assets and he opined this would entail a very complex regulatory proceeding.

Ms. Sherry Lewis of San Luis Obispo Mothers for Peace was recognized. In response to Ms. Lewis comment that in context of a crowded spent fuel pool water is better than older assemblies in terms of keeping the fuel cool Dr Peterson replied that the scenario he described previously was one in which there is no water in the pool. Dr. Peterson stated decay heat from the fuel stored in the pools drops off substantially over a period of several months. The heat load from a fully off-loaded fresh core more than doubles the heat load of a spent fuel pool due to the presence of shorter-lived fission products and is dramatically larger than the heat generated from older fuel. He stated that in a closely-racked pool, were the water to be drained with no ability to restore water inventory it is preferred to have the fuel arranged such that four older assemblies surround each freshly off-loaded assembly and the thermal inertia of such an arrangement is three or four times larger, which means the heat-up rate is correspondingly slower and therefore as the temperature is reduced the risk is reduced that a temperature can be reached where zirconium begins to oxidize and cesium is mobilized. In this circumstance older fuel is beneficial from the perspective of safety because it increase thermal inertia. Dr. Peterson observed because of the challenges and delays in getting dry cask technology developed and employed most plants in the nuclear industry went to a high density racking system in their spent fuel pools and there is now no practical way to reverse that situation and so the alternatives to improve safety are first to ensure all contingencies are in place to retain water inventory in a spent fuel pool under a variety of differing conditions and second to have enough older assemblies to provide thermal inertia and slow down the heat-up process. He added that this aligns well with the basic strategy PG&E

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is employing which is to defer off-loading older fuel from the DCPD spent fuel pools now so it can be accomplished at a much more rapid rate later because of the presence of older assemblies available to mix with newer assemblies and thereby shorten the entire offload of the fuel by three or four years which allows the plant to proceed into decommissioning faster while realizing a savings in available funding.

The Chair requested Mr. Baldwin to introduce the next presentation. Mr. Baldwin introduced Mr. Frank Lee, Manager, Generation North American Electric Reliability Corporation (NERC) Compliance and Cyber Security and reported Mr. Lee has 15 years' experience at DCPD and holds a Degree in Electrical Engineering from Cal Poly.

Cyber Security Program Update.

The Chair observed the DCISC's Charter is to review the operational safety of the power plant and the Committee does not review security except from the perspective of how it interfaces with safety and one of the attributes of cyber security is that virtually every effort in furtherance of cyber security also improves the reliability of the station's computer systems in general and there is a strong alignment between cyber security and operational safety.

Mr. Lee reported the PG&E Cyber Security Program was developed in full accordance with 10 CFR 73.54, the NRC Cyber Security Rule and the intent of that rule is to provide a high assurance that digital computer and communications systems and networks are adequately protected against cyber attack. He stated the DCPD Cyber Security Program is in compliance with the NRC's Cyber Security Plan and with the Nuclear Energy Institute's guidance document 08-09, Revision 6 Cyber Security Plan for Nuclear Power Reactors. DCPD achieved full implementation of its Cyber Security Program by December 2017 and has continued reviewing and improving the program. In March 2021 DCPD completed an NRC inspection of DCPD's Cyber Security Program and received favorable results from the inspection with no findings or violations. He reported DCPD was one of the last plants to have its Cyber Security Program evaluated by the NRC and that the NRC noted it was unusual to have an inspection result in no violations or findings.

Mr. Lee reported the purpose of the Cyber Security Program is to protect DCPD critical digital assets to both protect the plant and the health and safety of the public from the consequences of a cyber attack. Specifically, the Cybersecurity Program provides protection of critical digital assets or systems that are associated with:

- Safety-related and important-to safety functions;
- Security functions;
- Emergency preparedness functions, including off-site communications; and
- Support systems and equipment for the above functions.

Mr. Lee stated the Cyber Security Program maintains capability for timely detection and response to a cyber attack and to mitigate the consequences of such an attack and restore affected

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systems, networks or equipment. He reported comprehensive measures have been implemented including procedures and processes to ensure DCPD's regulatory requirements are met and maintained and controls are used to harden critical digital assets to ensure they are protected or that they can be restored if compromised. Mr. Lee stated the DCPD cyber security team constantly monitors threat feeds in conjunction with PG&E's corporate Security Information Operations Center to identify and evaluates new threats and if vulnerabilities are found they are promptly patched or otherwise mitigated. The team attends annual training conducted by the Sans Institute, participates in industry benchmarking¹⁰ and conducts an annual cyber security drill. Mr. Lee confirmed DCPD partners with other nuclear power plants to leverage the different tools available and has a wide range of tools available to ensure its systems are protected.

Mr. Lee reported two recent cyber attacks, the Solar Winds and the Colonial Pipeline events, were evaluated for evolving threats and DCPD participated in industry conference calls and response meetings. The determination concerning both events was that DCPD was not vulnerable to either the compromised software issues which gave rise to the Solar Winds vendor issue or to the ransomware Colonial Pipeline event as DCPD's controls and processes were found to be sufficient protection in both cases. The tactics used in those events were evaluated as were the lessons learned in the development of DCPD cyber security drills.

Mr. Lee reported the next action for the DCPD Cybersecurity Program will be to continue the path to continuously evaluate incoming threat intelligence and plant systems and controls and participate in first responder meetings when threats are identified. He reported DCPD has partnered with Cal Poly to develop a cyber security program and a lab at the university.

In concluding his presentation Mr. Lee remarked the NRC's expectation is that the station will continuously evaluate cyber security controls and the constantly evolving threat environment for new threats to ensure protection remains adequate. In response to Dr. Lam's inquiry Mr. Lee reported his organization, which consists of one supervisor and three full time employees, is constantly evaluating staffing levels and is in the process now of increasing staffing. He reported that force-on-force drills are not conducted for cyber security but internal cyber security drills are conducted on an annual basis. Dr. Budnitz reported he participates in a working group convened by the American Nuclear Society that is tasked to develop a standard for identifying critical digital assets. He stated the Nuclear Energy Institute also has a cyber security working group which has actively engaged the nuclear utilities including PG&E and the goal of these efforts is to use insights about overall risk and plant safety to identify and prioritize critical digital assets. In response to Dr. Budnitz' question as to prioritization of critical digital assets Mr. Lee confirmed DCPD employs a graded approach to its critical digital assets including classifying them by function as well as by their ability to be compromised. He reported the station does not treat every critical digital asset equally and has developed a defense in depth

¹⁰ Benchmarking is the practice of comparing business processes and performance metrics to industry bests and best practices from other companies.

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strategy based on the criticality of the asset that determines the level or rigor of the controls that are applied.

The Chair thanked Mr. Lee for his presentation.

A short break followed.

XXV STAFF & CONSULTANT REPORTS & RECEIVE, APPROVE, AND AUTHORIZE TRANSMITTAL OF FACT FINDING REPORTS TO PG&E

D. The Chair requested Consultant McWhorter to provide a report on the September 13-14, 2021, fact-finding visit with Dr. Budnitz. Mr. McWhorter then reviewed the topics discussed with PG&E during the July September 2021, visit as follows:

➤ Probabilistic Risk Assessment (PRA) Program – Consultant McWhorter reported the PRA group at DCPD has undergone a number of changes over the past few years as the PRA group was split and a large part of the DCPD team was assigned to support PG&E's Generation organization leaving a smaller team to directly support DCPD. He reported the PRA group is not planning to do any major upgrades to the PRA model between now and cessation of operations but will play a continuing role in supporting day-to-day activities and decision making at the station, particularly in the area of risk-based decision making. Examples include significance determinations to analyze failures and to support applications for license amendments. Mr. McWhorter reported a post-shutdown role for the PRA group has not yet been determined. The FFT concluded the PRA group continues to support DCPD with excellent work. Dr. Budnitz reported that nuclear power plants worldwide report events to a database and each plant reviews this information for applicability and the PRA model is used to assess if an accident sequence based on a reported event were to occur how would the accident sequence evolve and the probability and consequences of the accident sequence. He remarked this routine PRA analysis of operating experience provides a perspective on risks involved.

➤ Staffing, Retention and Attrition Update – Mr. McWhorter reported there has been some turnover at the station particularly amongst leadership. He reported that in the past about 150 of DCPD's 1,400 employees left employment at the station each year. Following the approval of the Joint Proposal, the average has been approximately 200 of the 1,100 employees at the station have left employment since the end of the Tier One retention period some months ago. He reported another key date in assessing staff retention will occur in November 2021 when the first payment is due under the Tier Two retention period as any employees who receive checks under the Tier Two Program would need to repay those funds if they do not stay for the entire period. Mr. McWhorter reported the loss in employees has been gradual and it is not expected that the Tier Two payments will trigger a large sudden loss of employees. Consultant McWhorter reported there are specific areas of concern regarding staffing for the In-Service Inspection, Engineering, Reactor Engineering and the Electrical Maintenance organizations and DCPD's People Committee is addressing staffing issues for those organizations by identifying qualified and experienced personnel able to either fill gaps or provide coaching and has considered

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engaging contract personnel. He reported the Electrical Maintenance organization has made a number of new hires. Mr. McWhorter reported changes in leadership while not out of line with overall numbers have been somewhat unexpected. He reported DCPD now has a single individual filling the Outage Manager position rather than two individuals as in the past. He reported DCPD is closely monitoring the leadership situation and has developed a matrix specifically for the leadership organization which identifies the depth of the skills of other persons in the organization who would or could be capable of filling vacant position in leadership. The FFT found the matrix to be detailed and thorough demonstrating a depth of planning and anticipatory planning. The FFT concluded the Employee Retention Program was being well managed and generally proceeding as expected.

➤ Meet with DCPD Officer – The FFT met remotely with Vice President Generation Business and Technical Services Ms. Maureen Zawalick for a discussion of items from the fact finding visit and other subjects of interest.

➤ COVID-19 Pandemic Response Update – Consultant McWhorter reported the DCISC has been reviewing the station's response to the COVID-19 pandemic at a fact-finding conducted between each public meeting. At present approximately 65% of the plant's workforce is vaccinated against COVID. He reported there has been an increase seen in employees testing positive or needing to quarantine but the trend is similar to the trend in the community at large and is due to the emergence of the Delta variant. Face coverings are again required at DCPD but Mr. McWhorter stated the primary defense is through daily screenings which utilize an application on a person's personal device which assesses factors in accordance with the federal Centers for Disease Control guidance. He reported there have been very few instances of on-site transmission from one worker to another and most cases are due to off-site contacts. He stated PG&E is a federal contractor and is awaiting the resolution of challenges to federal mandates but continues to take a strong corrective approach to managing plant personnel in the face of the pandemic.

➤ Cause Evaluation for Failed Auxiliary Saltwater (ASW) Pump Motor – Mr. McWhorter reported this event occurred on July 5, 2021, and required an emergency license amendment when operators made a routine stop of an operating ASW pump shortly after starting another ASW pump. A ground alarm was received on the bus for ASW Pump 1-1 but the pump did run. The other pump was kept running and ASW Pump 1-1 was shut down and declared inoperable due to the ground. Maintenance replaced the pump motor and an emergency change to the Technical Specification was initiated to allow an increase in time to replace the motor from 72 hours to 144 hours because of physical constraints due to the pump's location within the Intake Structure. Upon examination it was found the pump motor was degraded and there was evidence of moisture and mineral deposits on the pump. Consultant McWhorter reported the pump was known for some time to have been in a degraded condition but with the failure of the pump heater, which was determined to have failed about one week prior to the pump motor failure, the conditions and the absence of the heater allowed moisture buildup to increase. Consultant McWhorter reported the pump heaters are not safety related and they are intended to keep equipment in good condition over a long period of time. **He reported a Cause Evaluation was**

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being conducted which was not complete at the time of the FFT visit. The FFT concluded the response by DCPD to the motor failure was appropriate and the DCISC should review the Cause Evaluation when it is final for any programmatic implications.

➤ Equipment Reliability Process – Mr. McWhorter described the Equipment Reliability Process as used generally within the industry to monitor trends in equipment reliability and to ensure an effective program is in place to maintain a high level of reliability. DCPD has instituted an Equipment Reliability Excellence Plan which he stated is in Yellow health status at this time due to the reliability problems experienced with the Unit 2 Main Generator. The FFT concluded the DCPD continues to effectively implement the Equipment Reliability Process.

➤ Meet with NRC Resident Inspectors – The FFT met with the NRC Acting Senior Resident Inspector and the Resident Inspector to discuss items from their visit and the NRC's recent closure of its Open Phase Vulnerability Concerns. **Mr. McWhorter reported the visit was beneficial and the DCISC should continue its practice of meeting with the NRC resident inspectors.**

➤ Root Cause Evaluation for Unit 2 Main Generator Failures – Consultant McWhorter reported that at the time of the FFT visit the Root Cause Evaluation for the Unit 2 Main Generator failures had been completed and the DCISC representatives were given an opportunity to review the Root Cause Evaluation. Mr. McWhorter reported the first root cause was identified as inadequate mitigation of the bore ring assembly stick-slip phenomenon during stator core installation. He reported this involves bolting of the stator core and he displayed a photo of the bolts that are arranged in a radial pattern around the stator core and the generator and sit atop the belly bands. As the bolts are tightened they tighten the bore rings and on multiple occasions the bore bolts were tightened to the required torque but subsequently there would be slippage along the friction surface which loosened the bolts. It is believed friction allowed the bolts to be tightened to the required torque but later during operation the ring slipped which is the basis for the term "stick-slip" in context of the generator failures. The second root cause was inadequate mitigation of and testing for resonant frequencies on the exciter end parallel rings and end windings. Mr. McWhorter reported there were several contributing causes identified including the geometry of certain welds. The DCISC FFT concluded the Root Cause Evaluation was well performed with regards to its approach and its conclusions and the team did not believe there were any nuclear safety concerns identified nor were programmatic deficiencies in the management of the event or in the performance of the root cause assessment that would potentially extend into safety-related areas. Dr. Budnitz stated that in light of the discussion last evening he wanted to reiterate that in his view DCPD did a good job with what they did relative to the cause evaluation of the problems with the Unit 2 Main Generator but much of the effort of getting to a next level of understanding as to what brought about the problems involves the vendor and the vendor's programs and he commented that he did not find that the work to establish the root cause stopped short and it was his opinion that further work would not have been beneficial and there were no programmatic issues identified by the event. Dr. Peterson remarked that from the standpoint of the DCISC getting to that next level described by Dr. Budnitz is not necessarily pertinent to nuclear safety.

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- **Cyber Security Program** – As the DCISC received a presentation from PG&E at this public meeting on cyber security issues Mr. McWhorter stated he would comment only that from the FFT visit the program appears to be effectively managed. Dr. Budnitz remarked that inquiry was made during the fact-finding and documents were reviewed as to DCP's ability to cope with cyber threats which have recently impacted other facilities and the FFT was satisfied as to the adequacy of the protection afforded DCP's cyber assets.
- **Auxiliary Feedwater (AFW) System** – Consultant McWhorter reported the AFW System is an important system to safety used to provide feedwater to the steam generators during shutdown, startup, low power and accident conditions. The FFT found the AFW System for each unit to be in Green health status. Previous issues experienced with maintenance and modification have been addressed and the replacement of the chemical addition skids which prior to their replacement required considerable operator action to manage the addition of chemicals to the system have been addressed by replacement of the skids for both units. Mr. McWhorter reported corrective actions have been taken for issues where corrosion occurred under insulation on piping which caused a leak and the FFT toured the areas involved and reviewed the corrective actions. The DCISC representatives concluded the AFW Systems continue to receive close attention and are rated in Green health for both units with no safety concerns. Drs. Budnitz and Peterson remarked the ability now afforded the DCISC to now tour areas of the plant in person as conditions allow was extraordinarily important and has greatly enhanced the effectiveness of work of the fact-finding teams.
- **Plant Tour** – Mr. McWhorter reported the FFT toured several areas of the plant including the Turbine Building.
- **Emergency Preparedness Exercise Observation** – Consultant McWhorter reported he observed the emergency preparedness exercise conducted on September 15, 2021, including observing activities in the Simulator facility where operators responded to the first portion of the exercise to classify the event and make an alert declaration and subsequently make the required emergency notifications. He then observed activities at the Emergency Operations Facility (EOF) as the emergency director was taking over from the control room and witnessed the making the declaration of a site area emergency and a general emergency. Mr. McWhorter reported he then visited the Joint Information Center to observe a simulated news briefing before returning to the EOF to witness a portion of the critique of the exercise. He reported while he did not visit the Technical Support Center or the Operations Support Center he did visit those facilities the day prior to the emergency exercise. Consultant McWhorter reported the emergency preparedness exercise was successfully designed and implemented and demonstrated that DCP staff could effectively implement the DCP Emergency Plan.

Following Mr. McWhorter's presentation Ms. Sherry Lewis of Mothers for Peace was recognized. In response to Ms. Lewis' inquiry regarding corrective actions taken for corrosion under AFW piping insulation Mr. McWhorter replied the actions included removal of the insulation from the area of piping where the leak occurred, repairing the pipe and conducting

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inspections on both units as well as conducting follow up actions which have now been completed and were reviewed by the DCISC.

Upon a motion made by Dr. Peterson, seconded by Dr. Lam, the September 13-14, 2021 Fact Finding Report was accepted by the DCISC and its transmittal to PG&E was authorized. The report will become a part of the Committee's 32nd Annual Report.

Dr. Budnitz announced the Members would retire to an executive closed session prior to the adjournment of the morning session.

XXVI CLOSED SESSION (CA Govt. Code §11126)

The Committee Members convened in a closed session to discuss a personnel matter with Assistant Legal Counsel Rathie.

XXVII ADJOURN MORNING MEETING

The Chair adjourned the morning meeting of the Committee at 11:25 A.M.

XXVIII RECONVENE FOR AFTERNOON MEETING

The October 20, 2021, afternoon session of the Diablo Canyon Independent Safety Committee was called to order by its Chair, Dr. Robert J. Budnitz at 1:00 P.M.

XXIX COMMITTEE MEMBER COMMENTS

Dr. Budnitz reported the next meeting of the CPUC Independent Peer Review Panel, an independent review group formed by the CPUC to review seismic issues in connection with DCP, would be held on November 3, 2021 at 2:00 P.M. The meeting will be held entirely remotely and is open to any member of the public. Dr. Budnitz stated anyone interested in attending might contact Mr. David Zizmor at the CPUC Energy Division or the DCISC. Dr. Budnitz asked if any of the other Members wished to make remarks and Drs. Lam and Peterson reported they had no comments at this time.

Mr. Rathie reported on the closed session held at the conclusion of the morning session and stated the Committee approved increasing Consultant McWhorter's hourly rate of compensation to \$240 per hour to be effective on November 1, 2021.

XXVIII PUBLIC COMMENTS AND COMMUNICATION

The Chair reviewed the invitation to address the Committee on matters not on the agenda for this public meeting and invited any comments from members of the public who wished to address the Committee to do so now. There was no response to his invitation.

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XXIX INFORMATION ITEMS BEFORE THE COMMITTEE (Cont'd.)

Dr. Budnitz requested Mr. Baldwin to introduce the next presentation. Mr. Baldwin introduced DCPM Manager of Maintenance and Technical Training Mr. Jeff Harker. Mr. Baldwin reported Mr. Harker holds a Bachelor of Science Degree from Regents College and a Master Degree in Business Administration from the University of Laverne. Mr. Harker has more than 35 years' experience in nuclear power including services in the U.S. Navy and within the commercial nuclear power industry. Mr. Harker has held positions in the Chemistry, Radiation Protection, and Quality Verification organizations prior to assuming his present position.

[Due to travel commitments Dr. Budnitz left the public meeting prior to adjournment. The Committee continued in session with a quorum present and Dr. Peterson, as the Vice-Chair, presiding.]

Update on Nuclear Safety Culture, Safety Conscious Work Environment and Employee Concerns Program.

Mr. Harker reported in his role as Manager of Maintenance and Technical Training he chairs the Nuclear Safety Culture Monitoring Panel (NSCMP) at DCPM which provides him with current information on the safety culture at the plant and with the ability to share insights with those with whom he comes into contact. Mr. Harker observed Nuclear Safety Culture, a Safety Conscious Work Environment (SCWE), and the Employee Concerns Program use some of the same vernacular, all work in tandem and each needs to be well aligned with the others. He defined Nuclear Safety Culture as being the core values and behaviors which result from a collective commitment from leaders and individuals to emphasize safety over competing goals to ensure the protection of people and the environment. He stated Nuclear Safety Culture is a key element of successful operation at any nuclear facility and as a collective responsibility of everyone on-site and not just a subset of individuals.

Mr. Harker defined a SCWE as a work environment in which where employees are encouraged to raise safety concerns and where those concerns are promptly reviewed, given the proper priority based on their potential safety significance and appropriately resolved with timely feedback to the originator of the concern and to other employees as appropriate. He commented typically concerns raised in the SCWE come from either a nuclear radiological perspective or a quality, security or regulatory compliance perspective.

Mr. Harker described the Employee Concerns Program (ECP) as an alternate venue for employs to report concerns, that is, a program independent of line management. The ECP may be used by individuals to report nuclear safety concerns or concerns dealing with harassment, intimidation, retaliation or discrimination without fear of retribution. He reported the ECP is only one of a number of venues available to plant personnel to report concerns with those other venues being the employee's immediate supervisor, someone higher on the chain of command, through the use of a compliance and ethics hotline maintained by DCPM, or directly to the NRC.

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Mr. Harker described and briefly discussion the ten individual traits of a healthy Nuclear Safety Culture which are measured at DCPD through the following metrics:

- Individual Commitment to Safety
 - Personal Accountability
 - Questioning Attitude
 - Effective Safety Communication
- Management Commitment to Safety
 - Leadership Safety Values and Actions
 - Decision-Making
 - Respectful Work Environment
- Management Systems
 - Continuous Learning
 - Problem Identification and Resolution
 - Environment for Raising Concerns
 - Work Processes

Dr. Peterson observed in some instances a concern may be raised because there may be things done because of safety requirements or procedures that may not be necessary and these can potentially be an obstacle to safety or cause focus to be lost or diminished on other aspects which are important to safety. Dr. Peterson observed if employees feel constrained in raising issues about what they perceive to be unnecessary aspects this can create a creeping willingness not to follow procedures and he stated his belief that having too many unnecessary requirements is one of the more challenging aspects of organizational management and addressing employee concerns. Mr. Harker stated the DCPD organization is aware of the issue raised by Dr. Peterson and these types of concerns, including identification of tasks that may be administratively burdensome, are addressed and prioritized on a daily basis through pre-job briefings and procedural review with a supervisor if necessary before employees go into the plant to perform work. Mr. Harker reported in some cases the change is made and in some cases it is not but the important thing is that whatever the outcome that information needs to be conveyed to the author of the initial request so they understand why the determination was made and will not be constrained in the future from continuing to raise their concerns.

Mr. Harker reviewed the function and role of the NSCMP which meets at least three times each year to assess DCPD nuclear safety culture using the recommendations of Nuclear Energy Institute (NEI) document 09-07, Fostering a Healthy Nuclear Safety Culture for guidance which places primary responsibility on management to provide an ongoing holistic, objective, transparent and safety-focused process. The NSCMP process evaluates inputs from:

- The Corrective Action Program
- Performance trends
- NRC inspections

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- Industry evaluations, audits, and Operating Experience
- Independent and self-assessments
- The Employee Concerns Program

Mr. Harker reported the NSCMP he chairs monitors these inputs to identify early indications of potential concerns in the work environment that merit additional attention by the organization and this process is directed by station procedures. He reported the NSCMP is comprised of experienced personnel with diverse backgrounds with membership limited to protect the confidentiality of personal information. Reports and recommendations are received and made concerning the health and status of the ten traits of a healthy nuclear safety culture and the traits are rated by the NSCMP and provided to the station's leadership team. He reported the members of the NSCMP include representatives from Maintenance, Engineering, Operations, Security, Chemistry, Radiation Protection and Quality Verification organizations and are polled on a frequent and a collegial basis as to what they are hearing from their various organization. He reported during the past year because of the COVID-19 pandemic as well as the prior decision to cease operations the NSCMP has convened *ad hoc* sessions to assess how those issues have and continue to impact employees.

Mr. Harker reported the ECP is presently comprised of three qualified individuals who take and follow through on the concern raised by employees by conducting investigations and evaluations and ultimately make a recommendation to management as to the validity of the concern and what actions if any should be taken in response. The effectiveness of the ECP is assessed on a biennial basis by the NRC as a part of its Problem Identification and Resolution Inspection and by DCPD during self-assessments, both of which were performed in 2020 and will be performed again in 2022. Mr. Harker reported in March 2020 the ECP implemented what he termed a remote pulsing plan to seek input from employees within the Nuclear Generation organization using remote methods such as telephone calls and email in the effort to understand challenges perceived or concerns expressed by the workforce and to evaluate or investigate these as necessary. He reported 254 employees have been contacted to date with 100% of those responding indicating their willingness to raise nuclear safety or nuclear quality issues and confirming their understanding of the alternate avenues available to them to do so as well providing their responses to certain other inquiries including departmental specifics and the general health of the safety culture as perceived by the employees. **In response to Dr. Peterson's inquiry Mr. Harker stated he did not have data on the percentage of the employees who responded out of the total number contacted but he promised to follow up on this question and provide that data to the DCISC.**

Mr. Harker, in concluding his presentation, reviewed the results of the latest NRC biennial Problem Identification and Resolution Inspection conducted in September 2020 wherein a team of NRC inspectors reviewed the station's programs to establish and maintain a SCWE and effective ECP and conducted interviews with station personnel to evaluate the effectiveness of these programs. Based on the NRC team's observations and the results of these interviews, the NRC found no evidence of challenges to the station's SCWE nor did the team identify any deficiencies in the ECP. Mr. Harker reported the NRC inspections, as well as recent NSCMP

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assessments and ECP self-assessments indicate that DCPD continues to exhibit the traits of a healthy Nuclear Safety Culture. Mr. Harker stated PG&E corporate organization has developed a process called “Speak Up, Listen Up, Follow Up” in furtherance of corporate-wide efforts to foster a safer, better company which he remarked complements DCPD’s efforts to maintain and improve its Nuclear Safety Culture.

Dr. Lam observed there has been a considerable amount of cultural turmoil over the measures adopted to address the COVID-19 pandemic and he inquired whether any of the programs described by Mr. Harker have detected any changes in attitude, perceptions or opinions relative to safety based on recent events. Mr. Harker confirmed there have been some changes seen but no indication that there is a collective issue which affects the station or the trust between coworkers. He remarked changes such as wearing of face coverings have been effectively addressed by ongoing communications and the NSCMP has not identified any concerns to be passed on to management in this regard. He observed the open interaction by the leadership team at the plant provides constant reinforcement of leadership’s expectations that employees will share such concerns. Dr. Peterson reported he has seen firsthand evidence of personal interaction when touring the plant in being reminded to always use handrails on stairways and regarding the presence of an escort for the DCISC representatives. Dr. Lam observed that there are issues of subjectivity as facts can be subject to different interpretations and personalities and politics are involved with the issues he raised. Mr. Harker responded subjectivity is always a potential concern but he has seen no indication that it is a consequential or significant issue at this time and the Speak Up, Listen Up and Follow Up initiative requires sensitivity on the part of employees as to how their behaviors and actions are perceived by others. He remarked that when deciding on a career in nuclear power one accepts that there will be a requirement and the expectation that standards will need to be followed and this fosters a relationship of trust. Mr. Harker reported training for DCPD station leadership is conducted at least once each year and includes how to communicate including actively listening and how to coach individuals who may not be following standards and he cited the Site Standards Handbook carried by each employee as one of those coaching tools. In response to Consultant Wardell’s inquiry Mr. Harker stated he is not privy to specific information as to any active cases under review within the ECP but a representative of the ECP attends the meetings of the NSCMP and the information shared was that there has not been a recent increase in the number of cases raised with the ECP. He reported public information on the NRC’s website shows that the number of issues raised directly with the NRC has been relatively stable over a period of the past five years.

Dr. Gene Nelson a representative of Californians for Green Nuclear Power was recognized. Dr. Nelson reported from his previous short-term employment at DCPD it was his perception DPP gives great attention to safety. He also reported that on behalf of the group he represents which advocates for keeping DCPD operating after 2025 he had provided some documents to the Committee for its review.

XXII CONCLUDING REMARKS & DISCUSSION BY COMMITTEE MEMBERS OF FUTURE DCISC ACTIVITIES

AGENDA PACKET DRAFT – FEBRUARY 1, 2022

Dr. Peterson reported that all matters on the Committee's agenda for this public meeting including scheduling of its future fact-findings and public meetings have now been addressed.

Consultant McWhorter proposed and Drs. Lam and Peterson concurred that for the February 2022 public meeting, provided there was to be no public tour, the Committee could consider convening on both days at 9:00 A.M. and concluding the second day of the February public meeting without holding an afternoon session on the second day. Mr. Rathie reported the next public meeting is scheduled to be held on February 15-16, 2022, in Avila Beach at the Avila Lighthouse Suites.

Dr. Peterson expressed the thanks of the Committee to Mr. Baldwin and Mr. Garcia and to the DCPD management team for their assistance and participation in this public meeting, to the Technical Consultants and Committee Counsel who provide support to the Committee in its activities as well as to members of the public who participated in person or by Zoom or livestream broadcast and to the AGP Video team for supporting this Zoom webinar and livestream internet format.

XXXIII ADJOURNMENT OF ONE HUNDREDTH PUBLIC MEETING

There being no further business the one hundredth public meeting of the Diablo Canyon Independent Safety Committee was then adjourned by its Vice-Chair, Dr. Per Peterson, at 1:55 P.M.

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	February 15, 2022
AGENDA ITEM:	V-A
AGENDA TITLE:	DCISC Receipt of PG&E's Response to its Thirty-First Annual Report on Safety of Diablo Canyon Operations; July 1, 2020 - June 30, 2021.

CONSENT ☐ ACCEPTANCE ☒ INFORMATION ☐

The Restated Charter for the DCISC approved by the California Public Utilities Commission in Decision 07-01-028 provides:

“The Committee shall prepare an annual report and such interim reports as it deems appropriate, which reports shall include any recommendations of the Committee. The report shall be submitted first to PG&E, and PG&E shall respond in writing within 45 days. PG&E's response is then included with the Annual Report”.

The Committee made no recommendation in its Thirty-First Annual Report for the period July 1, 2020– June 30, 2021

RECOMMENDED COMMITTEE ACTION:

Motion to accept PG&E's Response to the DCISC's Thirty-First Annual Report.

November 18, 2021

PG&E Letter ISC-21-001

Dr. Robert Budnitz
c/o The Diablo Canyon Independent Safety Committee
857 Cass Street, Suite D
Monterey, CA 93940

Response to the Diablo Canyon Independent Safety Committee Thirty-First
Annual Report on the Safety of Diablo Canyon Power Plant Operations - July 1,
2020, to June 30, 2021

Dear Dr. Budnitz:

On November 15, 2021, Pacific Gas and Electric Company (PG&E) received the Diablo Canyon Independent Safety Committee's (DCISC) Thirty-First Annual Report on the Safety of Diablo Canyon Operations for the period of July 1, 2020, to June 30, 2021.

Your report concludes that PG&E continues to operate Diablo Canyon Power Plant (DCPP) safely and has no recommendations for PG&E during this report period.

As you are aware, operating the plant conservatively to protect public health and safety is our highest priority, and we will continue to ensure that we fulfill this commitment.

We welcome the DCISC independent review and oversight, which contributes to the continued safe operation of DCPP.

Sincerely,



James M. Welsch
Senior Vice President, Generation and Chief Nuclear Officer

Dr. Peter Lam
November 18, 2021
Page 2

PG&E Letter ISC-21-001

cc/: Dr. Robert J. Budnitz
Dr. Peter Lam
Dr. Per F. Peterson
Richard McWhorter
Robert W. Rathie
Ferman Wardell
Robert R. Wellington
Thomas Baldwin

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:

February 15, 2022

AGENDA ITEM:

V-B

AGENDA TITLE:

Update on Financial Matters and DCISC Activities

CONSENT ☐

ACTION ☐

INFORMATION ☒

Staff Summary: It is expected that the Committee Members will hold a discussion regarding Committee financial matters and DCISC planned activities during 2022.

The Actual and Proposed DCISC Fact-Finding and Public Meeting Items, with Key Dates, prepared by Committee Consultant Ferman Wardell is provided for your use in reviewing and planning Committee activities.

RECOMMENDED COMMITTEE ACTION: As appropriate

DCISC Fact-Finding and Public Meeting Agenda Items for 2021-2022

July 14-15, 2021 Fact-finding Meeting (PFP, RDM) (AR Exhibit D.1)

1. Observation of Operations Turnover and Focus Meeting
2. Emergency Preparedness Update
3. Meet with NRC Resident Inspector
4. Annual Radioactive Effluent Release Report & Annual Radioactive Environmental Operating Report
5. Lessons Learned from Texas Extreme Weather Event
6. Meet with DCPD Officer
7. Program for Managing Changes Under 10CFR50.59
8. Management Observation Program
9. Health of Emergency Diesel Generators
10. Plant Tour
11. Refueling Outage 2R22 Safety Plan
12. Observe NSOC Exit Meeting
13. Radiation Protection Department Update

August 18-19, 2021 Fact-finding Meeting (PL, RFW) (AR Exhibit D.2)

1. Observe Plant Health Committee (remote)
2. DCISC Member Meet with Jim Welsch, Chief Nuclear Officer (remote)
3. DCPD Safety Culture and DCPD Safety Conscious Work Environment (remote)
4. Meet with Two NRC Resident Inspectors
5. Institute of Nuclear Power Operations (INPO) Update and INPO Mid-Cycle Evaluation
6. Intake Structure Concrete Inspection Update and Tour
7. Software Quality Assurance
8. Chemistry Update
9. Reactor Coolant System Health

September 13-15, 2021 Fact-finding Meeting (RJB, RDM) (AR Exhibit D.3)

1. Probabilistic Risk Assessment Program
2. Staffing, Retention and Attrition Update
3. Meet with DCPD Officer
4. COVID-19 Pandemic Response Update
5. Cause Evaluation for Failed Auxiliary Saltwater Pump
6. Equipment Reliability Process
7. Meet with NRC Resident Inspector
8. Root Cause Evaluation for Unit 2 Main Generator Failures
9. Cybersecurity Program
10. Auxiliary Feedwater System
11. Plant Tour
12. Emergency Preparedness Exercise Observation

October 19-20, 2021 Public Meeting

1. Presentation on the State of the Plant: including Key Events, Outages, Highlights, Organizational Changes, Status of Retention Programs and Recent Attrition, COVID-19 Pandemic Response, the Station Excellence Plan, and other Station Activities since the DCISC June 2021 Public Meeting
2. Update on the Status of NRC Performance Indicators, Licensee Event Reports, NRC

Inspections Reports and Notices of Violation, Issues Raised by NRC Resident Inspectors, Open Compliance Issues, Current and Future License Amendment Requests, Cross-cutting Aspects of Performance, and other Significant Regulatory Issues/Requests

3. Emergency Planning Update and Results of September 2021 Emergency Planning Exercise
4. Final Root Cause Evaluation and Corrective Actions for the Unit 2 Forced Outages to Repair Main Generator Vibration Issues and Hydrogen Leaks
5. Address, Remarks and Discussion In Recognition of the 100th Public Meeting of the DCISC and Comments on the Committee's Future Role by Founding Member Dr. William E. Kastenberg and Legal Counsel Robert R. Wellington
6. Update on Decommissioning Planning, Nuclear Decommissioning Cost Triennial Proceedings, License Amendments, and Spent Fuel Cask Procurement
7. Cyber Security Program Update
8. Update on Nuclear Safety Culture, Safety Conscious Work Environment and Employee Concerns Program

November 16-17, 2021 Fact-finding Meeting (PL, RFW) (AR Exhibit D.4)

1. Observe Licensed Operator Training – Loss of Heat Sink
2. Independent Spent Fuel Storage Installation Cask Inspection Results
3. Digital Systems Update
4. Meeting with NRC Resident Inspectors
5. Feedwater Heater Tube Failure and Forced Reactor Shutdowns
6. Operating Experience Program Update
7. Observe Plant Health Committee (remote)
8. Observe Simulator Training on Anticipated Transient without Scram
9. NRC Ultimate Heat Sink Inspection Results
10. Meeting with DCPD Officer

December 7-8, 2021 Fact-finding Meeting (PFP, RDM) (AR Exhibit D.5)

1. Root Cause Evaluation for Failed Auxiliary Saltwater Pump Motor
2. Transmission System
3. Meet with Nuclear Regulatory Commission (NRC) Acting Senior Resident Inspector
4. Trends in Plant Status Control Events
5. Crane Program
6. Plant Tour
7. Observe Simulator Training Class
8. Emergency Diesel Generator System Follow-up Items
9. Plant Health Committee Meeting
10. Staffing, Retention and Attrition Update
11. Meteorological Information and Dose Assessment System
12. Meet with DCPD Officer

January 11-12, 2022 Fact-finding Meeting (RJB, RFW) (AR Exhibit D.6)

1. Meet with DCPD Officer Maureen Zawalick
2. Review Operator Rounds Procedures and Experience
3. Independent Spent Fuel Storage Installation Cask Inspections
4. Meet with Acting NRC Senior Resident Inspector
5. COVID-19 Update

6. Refueling Equipment Health
7. Fire Doors and Door Life Management
8. Observe Plant Health Committee Meeting
9. Meet with DCPD Officer Adam Peck
10. Single Point Vulnerabilities
11. Operability Determination Program
12. Feedwater Heater Tube Failure Root Cause Evaluation

February 15-16, 2022 Public Meeting (AR Exhibit B.6)

1. Presentation on the State of the Plant: including Key Events, Outages, Highlights, Organizational Changes, Status of Retention Programs and Recent Attrition, COVID-19 Pandemic Response, the Station Excellence Plan, and other Station Activities since the DCISC June 2021 Public Meeting
2. Update on the Status of NRC Performance Indicators, Licensee Event Reports, NRC Inspections Reports and Notices of Violation, Issues Raised by NRC Resident Inspectors, Open Compliance Issues, Current and Future License Amendment Requests, Cross-cutting Aspects of Performance, and other Significant Regulatory Issues/Requests
3. Update on the Recent Activities of the Diablo Canyon Decommissioning Engagement Panel
4. Status of Retention Programs, Attrition, and Update on the Efforts to Reatin Qualified Staff, Including Those with Critical Skills and the Results of the 2021 Operating Plan and Key Elements of the 2022 Operating Plan.
5. Update on the Relicensing of the Independent Spent Fuel Storage Facility, Cask Inspection Activities and Results, and Aging Management Plan development.
6. Plans for the Post-Shutdown Role of the DCISC Including Revising the Scope of the Post-Shutdown Committee Activities and Engagement of a Technical Consultant to Assist in the Review of Decommissioning and Spent Fuel Management Phases.
7. Event Significance, Causes and Corrective Actions for Emergency Diesel Generator 2-3 Failure During Test Run on June 28, 2021

March 23-24, 2022 (RJB, RDM) (AR Exhibit D.7)

April 12-13, 2022 (PFP, RFW) (AR Exhibit D.8)

May 18-19, 2022 (PL, RDM) (AR Exhibit D.9)

June 22-23, 2022 PM (AR Exhibit B.9)

July 13-14, 2022 Fact-finding Meeting (PFP, RFW) [NSOC Exit] (AR Exhibit D.1)

August 16-17, 2022 Fact-finding Meeting (PL, RDM) (AR Exhibit D.2)

September 13-14, 2022 Fact-finding Meeting (RJB, RFW) [EP Exercise] (AR Exhibit D.3)

September 28-29, 2022 Public Meeting (AR Exhibit B.3)

November 8-9, 2022 Fact-finding Meeting (RJB, RDM) (AR Exhibit D.4)

December 6-7, 2022 Fact-finding Meeting (PFP, RFW) (AR Exhibit D.5)

January 30-31, 2023 Fact-finding Meeting (PL, RDM) (AR Exhibit D.6)

February 15-16, 2023 Public Meeting (AR Exhibit B.6)

DCPP 2022 Key Dates

NSOC Meetings (DCISC invited only to the 2-hour exit meeting on the final day)

- February 28, 2022 (final day 3/3)
- July 11, 2022 (final day 7/14)
- December 5, 2022 (final day 12/8)

Refueling Outages

1R23 3/27/22 – 4/25/22

2R23 10/16/22 – 11/18/22 (Requested change to 10/23/2022 – 11/26/2022)

Emergency Preparedness

1Q22 Alpha Team Continuing Training and DEP Tabletop	01/25/2022
1Q22 Bravo Team Continuing Training and DEP Tabletop	01/27/2022
1Q22 Charlie Team Continuing Training and DEP Tabletop	02/01/2022
1Q22 Delta Team Continuing Training and DEP Tabletop	02/03/2022
Medical Drill Evaluated Exercise - French Hospital	02/16/2022
2Q22 Alpha Team Continuing Training and DEP Tabletop	05/18/2022
2Q22 Bravo Team Continuing Training and DEP Tabletop	06/01/2022
2Q22 Charlie Team Continuing Training & DEP Tabletop	06/02/2022
Delta Team Full Scope Training Drill	06/23/2022
Delta Team Dress Rehearsal	08/10/2022
Annual Siren Test	08/27/2022
Delta Team Gap Closure Day	08/31/2022
Delta Team NRC Evaluated Exercise	09/14/2022
4Q22 DEP Tabletop Placeholder (if needed)	12/14/2022

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	February 15, 2022
AGENDA ITEM:	V-C
AGENDA TITLE:	Review and Discussion of Open Items List.
CONSENT [] ACTION [X] INFORMATION [X]	

Staff Summary: It is anticipated that the committee will hold discussion concerning the items appearing on its Open Items List prepared by Committee Technical Consultant Ferman Wardell.

RECOMMENDED COMMITTEE ACTION: As appropriate, review and provide direction.

Diablo Canyon Independent Safety Committee Open Items List – 2021-2022

Open Item Type:

M= Monitor

F = Follow-up

I = Issue

Items in *Red Italics* are new or revised

ITEM NO.	TYPE	OPEN ITEM CATEGORY/DESCRIPTION	Last Actions	Next Action
CO		Conduct of Operations (CO)		
CO-7	M	Review DCCP storm response experience and strategy every two years [or as necessary] during or after annual winter storm season.	5/17FF 3/21FF	As necessary
CO-8	M	Monitor all reactor trips – automatic and manual – and forced outages. (review trip LERs at public meetings). [Reviewed Unit 2 forced outage <i>1/21 FF</i> – satisfactory.]	11/21FF	Post-trip FFs & PMs <i>2/22PM</i>
CO-9	F	Reactivity Management -- review every 18 months. [Reviewed Reactivity Management 5/16FF, 4/18FF, and 11/19FF – satisfactory.]	List at end of OIL	Regularly 4Q22FF
CO-10	M	Mispositioning Errors (Equipment Status) – monitor the status of mispositioning errors and actions to resolve. [Reviewed QV assessment of 2R20 outage. Some mispositioning issues. Follow up on resolution.] [Reviewed 4/20FF – needs follow-up at FFs] [<i>Followed up 12/21FF.</i>]	12/20FF <i>12/21FF</i>	<i>1Q23FF</i>
CO-11	M	Operator concerns and issues – review periodically the status of operator concerns and issues. [Reviewed Operations performance 5/21FF – satisfactory.]	4/20FF 5/21FF	3Q22FF
CO-13	M	Review any implementations of the CAISO load following policy that result in DCCP transients. Review any initiatives to operate DCCP in different modes, such as load following due to renewable energy fluctuations, during its final years of operation. Include 230kV voltage stability issues. Dr. Peterson observed there is potential that an increase in the risk of transmission problems or outages might affect the availability of alternate off site power sources for DCCP due to increasing incentives to curtail power output because of production or grid-related reasons. Mr. Peck and Dr. Peterson agreed this might be a suitable topic for a future DCISC fact-finding which should include representatives from the PG&E transmission organization. [Reviewed <i>12/21FF</i> , including Public Safety Power Shutoff Program.]	12/19FF <i>12/21FF</i>	<i>4Q22FF</i> As necessary
CO-14	F	The DCISC team found the operator retention project to be effectively managed but the Committee should follow this issue closely with reference to licensed operators and well as the station in general.	9/21FF <i>12/21FF</i>	<i>4Q22FF</i> <i>2/22PM</i>

CM	Conduct of Maintenance (CM)			
CM-7	I	Review PG&E's progress in complying with (1) the amendment to 10CFR50.55a, which provides the requirements for ISI of containment structures (degradation) and (2) ASME Code requirements for steel liner weld inspections.	7/12FF 8/17FF 11/19FF	Each Pair of RFOs 4Q22FF
CM-10	M	On-line Maintenance: review the implementation of on-line maintenance bi-annually, including the 12-week Rolling Maintenance Schedule about how well it is working & impacting risk. Review trend of amount of on-line maintenance. DCCP Assessment of Maintenance Risk and On-Line Maintenance Risk Procedures have been substantially upgraded with the addition of an Integrated Risk Review Team.	See list at end of OIL	Regularly 2Q22FF 5/22FF
CM-13	M	Review Maintenance Department performance measures, staffing, etc. approximately annually.	1/20FF 3/21FF	5/22FF 2Q22FF
EN		Engineering Programs (EN)		
EN-16	F	DCCP Systems – review a system (or structure or component), system health, long-term plan, Maintenance Rule performance & walkdown with System Engineer at FFs. [Note: Systems reviewed are listed with dates at the end of this Open Items List.]	See list at end of OIL	Regularly
EN-19	F	Review every 12-18 months major Engineering Programs, including Configuration Management, Management, System Engineering (system health & long-term plans), Valve Testing, Margin Management, Staffing, etc. [Note: Programs reviewed are listed with dates at the end of this Open Items List.]	See list at end of OIL	Regularly
EN-20	F	Each Member should review or observe Plant Health Committee, Notification Review Team, Corrective Action Review Board, Performance Review Quarterly Meeting, and other regular meetings.	See list at end of OIL	Regularly
HP		Human Performance: Human Errors and Improving Safety & Efficiency of Plant Performance		
HP-1	M	Review human performance & human behavior items (including error reduction programs, HP Pls, aberrant behavior statistics, FFD, stress reduction programs, Personnel Accountability Policy, Human Performance Steering Committee & Subcomm, Centers of Excellence, Org. Development), [Review biennially operator aging, physical fitness, "no solo" issues, attention enhancement, stress management, & incentives for operator focus.	10/19PM 3/20FF 12/20FF 4/21FF	4/22FF
HP-25	M	Further observations and improvements in the Management Observation Program should be reviewed by DCISC. [Reviewed 4/19FF – satisfactory.]	4/19FF 7/21FF	1 or 2Q23FF
HS		Health, Nuclear Safety and Safety Conscious Work Environment		
HS-6	F	Follow DCCP progress in establishing/improving its safety culture (and its subset Safety Conscious Work Environment, including Safety Culture Monitoring Panel, and including Employee Concerns & Differing Professional Opinion Programs).	8/21FF 10/21PM	3Q22FF
PI		Performance Improvement Programs		

PI-1		DCPP Performance Improvement Programs: Corrective Action, Self-Assessment, Operating Experience, Benchmarking, etc. Programs reviewed are listed with dates at the end of the Open Items List.	See list at end of OIL	At least once per year <i>3Q22FF</i>
EP		Emergency Preparedness (EP)		
EP-2	M	Attend and observe DCCP emergency drills and exercises annually [including Hostile Action Based Exercises], paying special attention to JIC communications to the media and public, including radiation release communications to the public, use of social media, coordination of information release with SLO County, and extension of drills to better exercise FMTs & JMC. [Next evaluated exercise <i>9/14/22</i> .] <i>Talk with EP Mgr. 3/22FF.</i>	11/18FF 9/21FF <i>10/21PM</i>	<i>3/22FF</i> 9/22FF Next evaluated exercise (FFPM)
RA		Risk Assessment and Management (RA)		
RA-5	M	Review overall [non-seismic] PRA program annually. Include Fire PRA Upgrade & Shutdown Analysis in next review. Much work underway (including plant specific shutdown risk analysis). Review PRA Group resources/capabilities. Turbine Bldg. (CCW & Condenser) internal flooding. Include external flooding and tsunami risk (see SC-6).	9/20FF 9/21FF	3or4Q22 FF RJB
NS		Nuclear Safety Oversight and Review (NS)		
NS-5	M	Monitor NSOC meetings periodically to observe their processes and their review of nuclear safety issues.	3/21FF 7/21FF	Next meeting [see FFPM] <i>7/22FF</i>
NS-9	M	Monitor DCCP's program to track INPO Areas for Improvement. Review with DCCP Coordinator. [Reviewed <i>8/21FF</i> – satisfactory.]	1/21FF 8/21FF	3Q22FF
RP		Radiation Protection (RP)		
RP-3	M	Regularly review outage RP performance.	7/21FF	Each RFO <i>5/22FF</i>
RP-12	M	Review annual DCCP radioactivity release report each year. Review at Summer or Fall FFs.	7/20FF 2/21PM 7/21FF	<i>7/22FF</i>
QP		Quality Programs (QP)		

QP-3	M	Review the activities, organization and results of QV audits as well as PG&E's outside biennial audits, including timeliness of corrective actions. Review annually – include 4 th quarter QPAR with yearly results.	3/21FF 5/21FF	3/22FF or 5/22FF
QP-9	F	Software QA Program	See list at end of OIL	Regularly
NF		Nuclear Fuel Performance (NF)		
NF-9	M	Nuclear Fuel Performance & Issues (review after RFOs).	12/19FF 3/21FF	Each RFO 5/22FF
ER		Equipment Reliability and Life Cycle Management (ER)		
ER-5	M	Monitor the Equipment Reliability Process approximately annually. The indicators for Deficient Critical Components Backlog and Operational Work-arounds rated as needing improvement and the DCISC should continue its review of this item in the future.	See list at end of OIL	Annually
OE		Organizational Effectiveness & Development (OE)		
OE-1	F	Review DCCP Operating Plan each January after development.	3/21FF	2/22PM 2/23PM
OE-2	F	Station Excellence Plan & Station Oversight Committee (4 th Thursday of every month at 9:00am)	3/21FF 10/21PM	3/22FF
SE		System and Equipment Performance/Problems (SE)		
SE-39	F	Review and tour the inspections and repairs of concrete Intake Structures following selected refueling outages.	12/19FF 8/21FF	3Q22FF
SE-40	F	Monitor the status of transformers & leakage, failures, corrective actions. Follow status of transformer protection barrier. [Barrier project placed on hold.] <i>[Close. Transformers healthy. Review if future problems.]</i>	See list at end of OIL	Regularly <i>Close?</i>
SE-49	F	Emergency Diesel Generators (EDGs)	See list at end of OIL 7/21FF	Regularly
SE-50	F	Maintenance Rule Functional Failures [Change from SSFFs to MRFFs beginning 3/21FF.]	See list at end of OIL	Regularly 4/22FF

OM		Outage Management (OM)		
OM-3	M	During outages, monitor Outage Coordination Center, Control Room, and containment walkdown/inspection (end of outage). Review outage turbine work. Review Steam Generator performance metrics and inspection results.	3/20FF 11/20FF	Each RFO <i>4/22FF</i>
OM-4	M	Review Outage Safety Plan, safety margin trends, outage results, including clearances, following each outage at FFs and PMs.	12/19FF 9/20FF 7/21FF	Each RFO 3/22FF
OM-5	F	DCPP has determined that it needs to do a better job of foreign material exclusion (FME) and this resolution appeared satisfactory to the DCISC team. [Note: FME Program review dates at the end of the Open Items List.] [Reviewed 4/19FF – need to follow up on supplemental outage worked training]	See list at end of OIL	Each RFO <i>5/22FF</i>
SEC		Security (SEC)		
SEC-3	M	Monitor interaction of Security and Operations, Engineering, Maintenance, and Emergency Preparedness for effects on nuclear safety. Plant security per se not reviewed but reviewed only in the context of impact on plant operation.	12/19FF 12/20FF	<i>4Q22FF</i>
SEC-4	M	Review DCPD progress in implementing their cyber security program in compliance with NRC schedule. Implementation complete..	9/21FF <i>10/21PM</i>	3Q23FF
SF		Independent Spent Fuel Storage Installation – ISFSI (SF)		
SF-1		Monitor ISFSI operations, including cask transfer. Review following next campaign.	10/20PM 5/21FF	<i>4Q22FF</i>
SF-2	M	Follow technical advances of relative risks of cask and pool storage. NRC Staff study and Commissioners' vote. Monitor needs for opening casks to inspect fuel. Monitor SONGS & Humboldt Bay spent fuel transfer plans. Include corrosion of metals	<i>11/21FF</i> <i>1/22FF</i>	<i>4Q22FF</i> <i>2/22PM</i>
SF-3	M	Review the seismic adequacy of ISFSI in its license extension. Use latest seismic analysis.	6/18PM 10/19PM	<i>9/22FF</i> RJB

SC	M	Seismic, Tsunami and Other External Events		
SC-3	M	Long-Term Seismic Program: review periodically. Review significant seismic events as they occur. Reviewed at 6/09 PM. [Reviewed 3/10 FF – progress satisfactory. Continue to monitor.] DCPD Seismic study reviewed 3/15 FF & to be presented by DCPD at 6/15PM. Shoreline Fault – follow activities and events with the (9/21 - nothing new to review; defer to 3Q22FF.)	8/16FF 3/19FF	3Q22FF RJB
SC-12	F	Workplace seismic safety – review annually. [Reviewed at 5/18FF – some problems – follow up on resolution and Control Room procedures “crash cart” stability. Discrepancies in workplace seismic standards (e.g., unbraced furniture) were caused by inadequate knowledge transfer during Building Services personnel turnovers, although the plant had a written standard. Control Room procedure card reviewed 12/20FF – satisfactory.]	5/19FF 12/19FF 12/20FF	4/22FF PFP
FP		Fire Protection (FP)		
FP-5	M	Review NFPA-805-based Fire Protection Program and Systems every two-three years, including QV audits and NRC triennial inspections. Review the health and correction of degraded systems every six months. Monitor fire doors (Plant Door Life Cycle Management Plan) for correction of impairments [Fire doors Reviewed 1/22FF - satisfactory.]	5/21FF 1/22FF	Regularly 3Q22FF
LD		Learning & Development Programs (LD)		
LD-3	M	Review non-license technical, operations & accredited training programs at least annually.	5/20FF 1/21FF	3or5/22FF
LD-6	F	Observe operator <u>license</u> re-qualification, classes periodically in FF meetings. [Reviewed licensed operator simulator training 11/21FF & 12/21FF – satisfactory.]	11/21FF 12/21FF	1Q23FF
NR		Nuclear Regulatory Commission Items (NR)		
NR-3	M	Monitor the Non-Cited Violation Tracking & Trending Program annually at the Jan/Feb Public Meetings.	3/year	Each PM
NR-4	F	Meet with NRC Resident Inspectors regularly.	Most FFs	Regularly
DEC	F	Decommissioning		
DEC-1	F	Review DCPD decommissioning plans periodically as a result of the Joint Proposal plant shutdown in 2025. Review the timing of spent fuel transfer from wet to dry storage and when the spent fuel pools are decommissioned the plant will lose the capability to open multipurpose canisters for inspection. DCISC should actively review the decommissioning plans for DCPD because of the potential impact on staffing and future options with respect to managing spent fuel.	10/20PM 10/21PM	10/22PM
DEC-4	F	Emergency preparedness during decommissioning. [Met with SLO OES 9/18FF – satisfactory there was concern by SLO County that their monies from PG&E would be reduced after operation ceases. Met with new Director SLO Emergency Services 8/19FF. Director discussed with DCISC at February 2020 PM.]	10/20PM 10/21PM	10/22PM

O	Other Items (O)		
O-1	F	Perform observations of evolutions (work processes) within the plant periodically. Continue with these about annually. Work process observations: Observe in the plant work processes important to nuclear safety, such as operator rounds, Control Room shift turnover, surveillance tests, preventive and corrective maintenance, system modifications, system walk downs with system engineers; outage activities, etc.	12/21FF 1/22FF
O-2	F	COVID-19 response/initiatives/practices.	9/21FF 1/22FF
		Public Meeting Items (PM) (Reference: Public Meeting Minutes Pages)	
10/20 PM 13	F	Dr. Lam observed the Committee has reviewed cancelled projects on numerous occasions since 2017 to ensure PG&E's actions do not jeopardize safety for budgetary reasons and it remains critically important that the DCISC retain its focus and ensure safety remains the priority. [Last reviewed 9/20FF. Review in a year.]	10/20PM
6/21 PM 1	F	Two examples of findings [QV], one in the Chemistry Department regarding data entry and one in the Operations Department regarding completion of the shift watch list for radiation protection personnel, which have been escalated and Mr. Wardell recommended the DCISC follow up on those issues, as well as on an issue regarding performance improvement mentioned the Fact-Finding Report, to assess resolution.	6/21PM
2	F	Mr. Wardell reported that the DCISC should follow up on the upgrades and modernization planned for the reactor coolant pump monitoring system as some problems were experienced with readouts in the Control Room.	6/21PM
4	F	The FFT concluded DCPP's approach to submitting LAR requests for decommissioning appears appropriate and the DCISC should continue to follow from a safety perspective all the regulatory activities which will define the reduction in requirements which will occur at shutdown.	6/21PM
5	F	Mr. Wardell observed training activities are best conducted in person, especially training on the Simulator Facility, and training activities will be brought back to the station, and he recommended the DCISC schedule observation of onsite training at a future fact-finding. <i>Close to Items LD-3 & LD-6J</i>	6/21PM
6	F	Mr. Wardell reported the system engineers are resuming and will be conducting regular periodic walkdowns of their systems and he recommended that the DCISC again schedule fact-finding to observe and participate in these walkdowns with system engineers.	6/21PM 9/21FF
7	F	In response to Dr. Peterson's query Mr. Harbor offered to follow up during a future DCISC fact finding as to whether radiography was performed [on the Unit 2 generator stator rings] with or without the coating material in place. <i>[Close?]</i>	6/21PM
8	F	Dr. Peterson state his belief in the value of the NRC resident inspectors continuing to have access to PG&E computers and he stated the Committee should consider endorsing this to PG&E and follow up to confirm including, if necessary, adopting a formal recommendation to that effect.	6/21PM

9	F	Dr. Peterson stated the Committee should follow up in future discussion with the NRC resident inspectors and continue the discussion about plans the NRC may have to leverage electronic communication capabilities with respect to such things as emergency response.	6/21PM	4/22FF
11	F	Dr. Peterson observed November 1, 2021, should provide some important emerging statistics for Tier 2 and the Committee should follow up on retention efforts at its November 2021 fact-finding.	6/21PM 12/21FF	Close
10/21 PM 1	F	The FFT discussed with both the Senior Resident and the Resident Inspector a failure of the motor for Auxiliary Saltwater System pump 1-1 and a need for the DCISC to follow-up on that issue. [Found satisfactory at 12/21FF. Close.]	10/21PM 12/21FF	Close
2	F	Mr. McWhorter reported the FFT recommends that the DCISC follow-up on the resolution of the Red status window due to the fuel oil leak and the subsequent frequency regulation failure and include these actions in the Open Items List.	10/21PM 12/21FF	6/22PM
3	F	Mr. McWhorter stated that for the February 2022 public meeting, with the assistance of Consultant Wardell and Mr. Rathie, the Draft Post-Shutdown Matrix prepared previously and now available to the public on the Committee's website will be revised and the Open Items List reviewed in order to inform a discussion at the DCISC's next public meeting on February 15-16, 2022, which may include the periodicity of public meetings and fact-findings.	10/21PM	2/22PM
4	F	Mr. Harbor reported seven tubes have been identified as having failed and are being analyzed and other feedwater heaters are being inspected to determine extent of condition and to insure no other failures are imminent. Mr. Harbor stated he expects to review this issue with the DCISC at a future fact-finding.	10/21PM 11/21FF 1/22FF	2/22PM
5	F	He [Mr. McWhorter] reported a Cause Evaluation [for the Auxiliary Saltwater Pump motor failure] was being conducted which was not complete at the time of the FFT visit. The FFT concluded the response to the motor failure was appropriate and the DCISC should review the Cause Evaluation when it is final for any programmatic implications. [Found satisfactory at 12/21FF. Close.]	10/21PM 12/21FF	Close
6	F	In response to Dr. Peterson's inquiry Mr. Harker stated he did not have data on the percentage of the employees who responded out of the total number contacted but he promised to follow up on this question and provide that data to the DCISC.	10/21PM	Awaiting DCP

Diablo Canyon Independent Safety Committee Open Items List – 2021-2022

<u>DCPP Systems/Components Reviewed Periodically</u> [Yellow = Upcoming FF]	<u>DCPP Programs Reviewed Periodically</u> [Yellow = Upcoming FF]
4 kV – Jan 2020	10CFR50.59 Program – July 2021
230 kV & 500 kV – Dec 2021	ALARA – Sep 2019 5/22FF
Aux Feedwater – Sep 2021	Air Operated Valves – Dec 2020
Aux Saltwater – Mar 2020	Benchmarking – Nov 2018 3/22FF
Aux Bldg Ventilation – Apr 2021	Boric Acid Corrosion Control – Apr 2021 (review biennially)
Chemical & Volume Control System and High Pressure Injection – Jan 2021	Buried Piping & Tanks – Jul 2020
Component Cooling Water – Apr 2020	Chemistry – Aug 2021
Compressed Air – Jul 2020	Cranes – Dec 2021
Condensate & Feedwater – Nov 2021	Configuration Management – May 2019 4/22FF
Containment Structure – Nov 2019 5/22FF	Corrective Action – CARB – Apr 2021
Containment Spray – Aug 2019 4/22FF	Emergency Preparedness– Sep 2021 3/22FF
Containment Ventilation and H2 Purge – Aug 2020	Employee Concerns Program – Aug 2020
Control Room Simulator – Nov 2020	Equipment Environmental Qualification – Mar 2020
Control Room Ventilation – Jan 2021	Equipment Reliability – Sep 2021
Digital Systems – Nov 2021	Fire Doors & Door Life Cycle Mgm't. Plan – Jan 2022
DC Power – Apr 2019 3/22FF	Fire Protection Program (NFPA-805) – May 2021
EDG – Jul 2021	FLEX Program – Apr 2019 4/22FF
Fire Protection & Detection Systems – Aug 2020	Flow Accelerated Corrosion – Apr 2019 5/22FF
Nuclear Instrumentation & In-core Instrumentation – Sep 2020	Foreign Material Exclusion – Dec 2020
Plant Protection System – Mar 2021	In-service Inspection Program – Apr 2019
Radiation Monitoring – Apr 2021	Integrated Risk Assessment Program – Apr 2020
Radwaste Processing – Nov 2020	Large Motors – Jan 2019 4/22FF
Reactor Coolant System & Pumps – Aug 2021	Long-Term Capital Planning Process – Sep 2020
RCS Process Control System – May 2020	MIDAS – Dec 2021
Refueling Equipment – Jan 2022	Maintenance Rule – Apr 2021
RHR – Jan 2021	Margin Management Program – May 2020
Rod Control & Indication – Sep 2020	Motor Operated Valves – Dec 2020
Safety Injection Pumps – Jan 2021	Notification Review Team – Mar 2020
Spent Fuel Pool Cooling & HVAC – July 2021	Nuclear Fuel Program – Mar 2021
Steam Generators – Aug 2020	On-Line Maintenance – Apr 2020
Special Protection System – Mar 2020	Operating Experience – Nov 2021 (review biennially)
Turbine-Generator – Dec 2020	Operability Assessment Program – Jan 2022
	Operational Decision Making – Sep 2020
	PRA Programs (non-seismic) – Sep 2021
	Performance Improvement – Apr 2019
	Performance Review Quarterly Meeting – Apr 2021

February 15-16, 2022 Public Meeting
First Draft 2/2/22

FF = Fact-finding Meeting PM = Public Meeting Q=Quarter

Plant Health Committee – Jan 2022
 Reactivity Management – May 2021
 Safety-Security Interface – Dec 2020
 Self-Assessment – Aug 2020
 Single Point Vulnerabilities – Jan 2022
 Seismic PRA – Sep 2017 ? RJB
 Seismically Induced System Interactions – Nov 2020
 Software QA - Aug 2021
 Spent Fuel Management – May 2021
 System Engineering – Nov 2019 Mar 2022
 Transformers, Large – Jan 2021
 Troubleshooting – Jan 2020
 Tsunami Hazard Analysis – Sep 2017 ?
 Vibration Monitoring – Mar 2021

February 15-16, 2022 Public Meeting
 First Draft 2/2/22

FF = Fact-finding Meeting

PM = Public Meeting

Q = Quarter

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE	
AGENDA TRANSMITTAL FORM	
MEETING DATE:	February October 15, 2022
AGENDA ITEM:	VI-B
AGENDA TITLE:	Documents Provided to the Committee
CONSENT [] ACTION [] INFORMATION [X]	
Staff Summary: Attached for your information are copies of the transmittal memoranda which list the various documents provided to the Committee by PG&E since your last public meeting in October 2021.	
RECOMMENDED COMMITTEE ACTION: None, information item only.	

September
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

Date	LBIE No.	Title
		There are no LBIEs for this month.

B. NRC Outgoing Correspondence (incl. LERs, LARs, etc.)

Date	Letter No.	Title
9/14/2021	DCL-21-060	Response to Request for Additional Information on License Amendment Request 21-03, "Request for Revision to Technical Specification 3.8.1, 'AC Sources – Operating,' to Support Diesel Fuel Oil Transfer System Component Planned Maintenance"
9/20/2021	DCL-21-065	Unit 2 Licensee Event Report 2021-01-00, Emergency Diesel Generator Declared Inoperable due to Low Frequency Condition Discovery during Routine Surveillance
9/29/2021	DCL-21-070	PG&E's Extension of Joint Media Center Lease

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
9/12/2021	UPDATED INSPECTION PLAN FOR DIABLO CANYON POWER PLANT, UNITS 1 AND 2 (REPORT 05000275/2021005 AND 05000323/2021005)
9/2/2021	DIABLO CANYON NUCLEAR POWER PLANT, UNITS 1 AND 2 – ISSUANCE OF AMENDMENT NOS. 239 AND 240 RE: REVISING TECHNICAL SPECIFICATION 3.2.1, "HEAT FLUX HOT CHANNEL FACTOR (FQ(Z))," TO IMPLEMENT METHODOLOGY FROM WCAP-17661, REVISION 1 (EPID: L-2020-LLA-0200)
9/8/2021	SUMMARY OF AUGUST 30, 2021, PRE-SUBMITTAL TELECONFERENCE WITH PACIFIC GAS AND ELECTRIC COMPANY REGARDING A POST-SHUTDOWN EMERGENCY PLAN LICENSE AMENDMENT REQUEST FOR DIABLO CANYON NUCLEAR POWER PLANT, UNITS 1 AND 2 (EPID L-2021-LRM-0083)
9/10/2021	DIABLO CANYON POWER PLANT UNITS 1 AND 2 – DESIGN BASIS ASSURANCE INSPECTION (PROGRAMS) INSPECTION REPORT 05000275/2021011 AND 05000323/2021011
9/21/2021	Revised schedule: Diablo Canyon request to revise Technical Specification to reflect the permanent cessation of reactor operation (EPID: L-2020-LLA-0261)

D. PSRC Documents (PSRC Minutes)

Date	Doc. No.	Title
9/20/2021		PSRC Members/Alternates

E. CAP Documents (RCAs, WGEs, CAP Effectiveness Evaluations)

Type	Doc. No.	Title
1 WGE	SAPN 51106514	DA-U2 Gen End Winding Vibration

September
List of Documents Transmitted Electronically

2 WGE	SAPN 51124260	DA-QAAF-Audit of DCPD Cyber Master Accou
2 WGE	SAPN 51118352	DA-QAAF: Regulatory OE Program
09/30/2021		SAPN's Initiated per Month
08/31/2021		Selection of Significance Level 1 and 2 Created 08/01/2021 – 08/31/2021
09/30/2021		List of DN 5.1 and 5.2 Created 9-1-2021 – 9-30-2021
09/30/2021		DCPD 1 WGE and 2 WGE Notifications Completed 09/01/2021 – 09/30/2021
09/02/2021	CE - 51124717	DA-Protection set IV loss of power
09/23/2021		Open LTCA DA Notifications Station Significance 3 as of 09/23/2021
09/23/2021		20 Oldest Non-LTCA DA Notifications as of 09/23/2021
09/29/2021		Open RCEs as of 09/29/2021
09/23/2021		Open LTCA DA Notifications Station Significance 1 & 2
09/08/2021		Performance Improvement Status Summary
09/23/2021		Performance Improvement Status Summary
09/27/2021		CAP Index
09/07/2021		CAP Summary

F. QV Documents (QPAR, Audit Reports, Audit Schedule, Assessments)

Date	Doc. No.	Title
08/31/2021		Quality Digest, September Edition 2021
09/22/2021	#2021-IA-09	2021 Independent Spent Fuel Storage Installation and Fuel Management Audit
09/23/2021	#2021-QP-02	Quality Performance Assessment Report (QPAR)

G. Nuclear Safety Culture Monitoring Panel Reports

Date	Doc. No.	Title
		There is no Nuclear Safety Culture Monitoring Panel Report for this month.

H. Self Assessment/Benchmarking (SA/BM Reports/Schedules)

Date	Doc. No.	Title
10/14/2021	SAQH 51080582	2020 MR (a)(3) Assessment
09/22/2021	SAQH 51124711	Quick Hit SA-Access Control 2021
09/14/2021	BNHI 51071199	Electronic Workflow/Signature (Covid-19)
09/01/2021	SAQH 51117309	2021 QHSA Non-Design Modifications
09/09/2021	SAF 51075070	Operability Determin -SA tracking 2021
09/27/2021	SAF 50193962	2021 DCPD Mid-Cycle assessment

September
List of Documents Transmitted Electronically

I. Performance Information (PIR, Operating Plan, Station Initiatives)

Date	Doc. No.	Title
09/30/2021		Generation Operating Plan 2021 – 2025, No new updates this month.
09/16/2021	PPIR	Diablo Canyon Power Plant; Plant Performance Improvement Report; Data: July 2021
09/08/2021		September 2021 PI Status Summary
09/13/2021		September 2021 Operations Services Performance Improvement Dashboard
09/20/2021		September 2021 Maintenance PI Dashboard
09/14/2021		September 2021 Engineering Services Performance Improvement Dashboard
09/13/2021		September 2021 Security & Emergency Services Performance Improvement Dashboard
09/23/2021		Updated September 2021 PI Status Summary
Station Initiative		There are no new Station Initiatives for this month.

J. INPO

Date	Doc. No.	Title
		There are no INPO documents for this month.

K. Operational Documents (ODM Minutes, POAs)

Date	Doc. No.	Title
10/04/2021		DCPP Daily Load Profile updated through Sept 2021
		There are no ODMs for this month.
		There are no new POAs for this month.

L. Safety Limit Violation Report

Date	Doc. No.	Title
		There are no Safety Limit Violation Reports for this month.

M. Significance Determination Process Calculations

Date	Doc. No.	Title
		There are no Significance Determination Process Calculations for this month.

N. Miscellaneous

Date	Title
	There are no miscellaneous documents for this month.

O. Functional Area Documents

September
List of Documents Transmitted Electronically

Subcommittee	Date/Doc	Title
Maintenance	Week 202135	T+1 Performance Critique
	Week 202136	T+1 Performance Critique
	Week 202137	T+1 Performance Critique
	Week 202138	T+1 Performance Critique
	Week 202139	T+1 Performance Critique
	September	T+1 Monthly Performance Critique 2135-2139

October
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

Date	LBIE No.	Title
		There are no LBIEs for this month.

B. NRC Outgoing Correspondence (incl. LERs, LARs, etc.)

Date	Letter No.	Title
10/6/2021	DCL-21-072	DRC2021-00092 – Diablo Canyon Power Plant Decommissioning: Responses to August 9, 2021 Information Hold Letter and September 17, 2021 Comments on Draft Responses
10/8/2021	DCL-21-062, DIL-21-007	License Amendment Request 21-04 Proposed Changes to the Diablo Canyon Power Plant Emergency Plan for Post-Shutdown and Permanently Defueled Condition
10/19/2021	DCL-21-073	Notification of Changes to Post-Shutdown Decommissioning Activities Report, Site-Specific Decommissioning Cost Estimate, and Irradiated Fuel Management Plan for Diablo Canyon Power Plant, Units 1 and 2
10/13/2021	DCL-21-075	Technical Specification Bases, Revision 13
10/14/2021	DCL-21-071	Federally Listed Species Affects Determination Memorandum for the Pacific Gas and Electric Company Diablo Canyon Power Plant, Units 1 and 2
10/14/2021	DCL-21-077	Diablo Canyon Units 1 and 2 - 3Q2021 - PI Data Elements (QR) and (CR)
10/28/2021	DCL-21-080	Nuclear Material Transaction Report for New Fuel

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
	There is no incoming correspondence for this month.

D. PSRC Documents (PSRC Minutes)

Date	Doc. No.	Title
10/22/2021	2021-013	Unit 2 Mode Change 3 to 2
10/05/2021	2021-012	LAR 21-04, DDP 1*25430-000-00, GSI-191 DCP

E. CAP Documents (RCAs, WGEs, CAP Effectiveness Evaluations)

Type	Doc. No.	Title
	SAPN 51124756	Multiple Grounds on ASW Pp 1-1 Start
	SAPN 51106170	CE Effectiveness Review
2 WGE	SAPN 51128468	DA-8/11/21 DR: TSC Obj failure E.2.1
2 WGE	SAPN 51130149	DA-QAAF-Anonymous Hardcopy Notifications
2 WGE	SAPN 51124127	DA-QAAF - Missed Security Tour Area Chec
2 WGE	SAPN 51131259	DA-Inadequate Clearance Boundary

October
List of Documents Transmitted Electronically

2 WGE	SAPN 51085419	DA-U2 PL3 Maintenance Rule Goal Setting
2 WGE	SAPN 51110326	DA-OM6.ID1- Finger Laceration - MC-FM1
2 WGE	SAPN 51124005	DA-6/23/21 Drill: UDAC failure I.2.2
Eff. Eval		
09/30/2021		Significance Level 1 and 2 Work Group Evaluations Created 09/01/2021 - 09/30/2021
10/28/2021		List of DN 5.1 and 5.2 Created 10-1-2021 – 10-28-2021
10/28/2021		DCPP 1 WGE and 2 WGE Notifications Completed 10/01/2021 - 10/28/2021
10/21/2021		Open LTCA DA Notifications Station Significance 3 as of 10/21/21
09/30/2021		SAPN's Initiated per Month
10/20/2021		20 Oldest Non-LTCA DA Notifications as of 10/20/2021
10/25/2021		DCPP CAP Station Index
10/25/2021		Open RCEs as of 10/25/2021
10/21/2021		Open LTCA DA Notifications Station Significance 1 & 2
10/14/2021		October 2021 Performance Improvement Status Summary
10/01/2021		CAP Summary

F. QV Documents (QPAR, Audit Reports, Audit Schedule, Assessments)

Date	Doc. No.	Title
10/05/2021		Quality Digest, October Edition 2021
10/14/2021	#2021-IA-10	2021 Problem Prevention and Corrective Action Program Audit; 8/23/2021 - 9/27/2021
10/21/2021	QVA # 2021-AS-9	DCPP Equipment Reliability Policy and Performance
10/20/2021		October Nuclear Quality Digest Second Edition
10/29/2021	QVA # 2021-AS-10	Unit 1 Polisher Computer Alarms

G. Nuclear Safety Culture Monitoring Panel Reports

Date	Doc. No.	Title
		There is no Nuclear Safety Culture Monitoring Panel Report for this month.

H. Self Assessment/Benchmarking (SA/BM Reports/Schedules)

Date	Doc. No.	Title
10/11/2021	51074643	3-Year Commitment Mgmt Self-Assessment
10/21/2021	51128351	Quick Hit SA DC ISFSI LR Environmental

October
List of Documents Transmitted Electronically

10/06/2021	51106469	FSA: Instrument & Control Training
10/06/2021	51127603	2021 Triennial Heat Sink
10/25/2021	51069386	QHSA for QV Qualifications

I. Performance Information (PIR, Operating Plan, Station Initiatives)

Date	Doc. No.	Title
1/11/2021		Generation Operating Plan 2021 – 2025, No new updates this month.
10/21/2021	PIR	Diablo Canyon Power Plant; Plant Performance Improvement Report; Data: September 2021
10/05/2021	PIR	Diablo Canyon Power Plant; Plant Performance Improvement Report; Data: August 2021
10/14/2021		October 2021 PI Status Summary
10/13/2021		October 2021 Operations Services Performance Improvement Dashboard
10/14/2021		October 2021 Maintenance PI Dashboard
10/13/2021		October 2021 Engineering Services Performance Improvement Dashboard
10/11/2021		October 2021 Security & Emergency Services Performance Improvement Dashboard
10/28/2021		October 2021 PI Status Summary
Station Initiative		There are no new Station Initiatives for this month.

J. INPO

Date	Doc. No.	Title
		There are no INPO documents for this month.

K. Operational Documents (ODM Minutes, POAs)

Date	Doc. No.	Title
		There are no ODMs for this month.
POA		There are no new POAs for this month.

L. Safety Limit Violation Report

Date	Doc. No.	Title
		There are no Safety Limit Violation Reports for this month.

M. Significance Determination Process Calculations

Date	Doc. No.	Title
		There are no Significance Determination Process Calculations for this month.

October
List of Documents Transmitted Electronically

N. Miscellaneous

Date	Title
	There are no miscellaneous documents for this month.

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 202140	T+1 Performance Critique
	Week 202141	T+1 Performance Critique
	Week 202142	T+1 Performance Critique
	Week 202143	T+1 Performance Critique
	October	T+1 Monthly Performance Critique 2140-2143

November
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

Date	LBIE No.	Title
		There are no LBIEs for this month.

B. NRC Outgoing Correspondence (incl. LERs, LARs, etc.)

Date	Letter No.	Title
11/02/2021	DCL-21-081	Exploratory Borehole Drilling Permit Applications for Geotechnical Investigation at Diablo Canyon Power Plant
11/10/2021	DCL-21-083	50.46 Annual Report for 2020
11/03/2021	DCL-21-082	Nuclear Material Transaction Report for New Fuel
11/10/2021	DCL-21-084	Nuclear Material Transaction Report for New Fuel
11/18/2021	DCL-21-086	Nuclear Material Transaction Report for New Fuel
11/18/2021	DCL-21-089	Nuclear Material Transaction Report for New Fuel

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
11/3/2021	DIABLO CANYON POWER PLANT, UNITS 1 AND 2 – INTEGRATED INSPECTION REPORT 05000275/2021003 AND 05000323/2021003
11/3/2021	(OUO) DIABLO CANYON POWER PLANT – SECURITY BASELINE INSPECTION REPORT 05000275/2021402 AND 05000323/2021402
11/15/2021	DIABLO CANYON NUCLEAR POWER PLANT, UNIT 1 – REVIEW OF THE FALL 2020 STEAM GENERATOR TUBE INSERVICE INSPECTION REPORT (EPID L-2021-LRO-0022)

D. PSRC Documents (PSRC Minutes)

Date	Doc. No.	Title
07/06/2021	2021-010	Emergency LAR for Multiple Grounds on ASW Pump 1-1 issue
11/01/2021	2021-014	OP L-0
11/01/2021	2021-015	OP1.DC1
11/30/2021	Memo	Plant Staff Review Committee

E. CAP Documents (RCAs, WGEs, CAP Effectiveness Evaluations)

Type	Doc. No.	Title
2 WGE	51128469	DA-8/11/21 DR: CR SIM Objective E.2.1
2 WGE	50671471	LTCA:DA-Aux FW Chem Inj Adverse Trend
2 WGE	51126493	DA-Equipment Reliability (ER) Trend
2 WGE	51130646	DA-legal action report not relayed 2 AA/
2 WGE	51127618	DA-QAAF: FSAR Updates for Org Changes
Eff. Eval		
10/29/2021		Performance Improvement Status Summary Week 4
10/31/2021		SAPN's initiated per month as of 10/31/2021
11/30/2021		List of DN 5.1 and 5.2 Created 10/29-2021 – 11/30-2021

November
List of Documents Transmitted Electronically

11/30/2021		DCPP 1 WGE and 2 WGE Notifications Completed 10/29/2021 - 11/30/2021
11/23/2021		Open LTCA DA Notifications Station Significance 3 as of 11/23/21
11/23/2021		20 Oldest Non-LTCA DA Notifications as of 11/23/2021
11/29/2021		DCPP CAP Station Index
11/29/2021		Open RCEs as of 11/29/2021
11/23/2021		Open LTCA DA Notifications Station Significance 1 & 2
11/09/2021		Performance Improvement Status Summary
11/24/2021		Performance Improvement Status Summary
10/28/2021		CAP Summary

F. QV Documents (QPAR, Audit Reports, Audit Schedule, Assessments)

Date	Doc. No.	Title
11/03/2021		Quality Digest, November Edition 2021
11/17/2021		Quality Digest, November Second Edition 2021

G. Nuclear Safety Culture Monitoring Panel Reports

Date	Doc. No.	Title
		There is no Nuclear Safety Culture Monitoring Panel Report for this month.

H. Self Assessment/Benchmarking (SA/BM Reports/Schedules)

Date	Doc. No.	Title
11/08/2021	51133670	OPS Informal Benchmark - Columbia
12/02/2021	51133843	PM/MM Informal Benchmark: Columbia
10/25/2021	51128355	Quick Hit SA DC ISFSI LR Technical
11/22/2021	50186339	2020 EP Pre-Inspection Assessment
10/20/2021	51133878	HU clock reset criteria benchmark

I. Performance Information (PPIR, Operating Plan, Station Initiatives)

Date	Doc. No.	Title
1/11/2021		Generation Operating Plan 2021 – 2025, No new updates this month.
11/09/2021		November 2021 PI Status Summary
11/15/2021		November 2021 Operations Services Performance Improvement Dashboard
11/17/2021		November 2021 Maintenance PI Dashboard
11/17/2021		November 2021 Engineering Services Performance Improvement Dashboard
11/09/2021		November 2021 Security & Emergency Services Performance Improvement Dashboard
11/10/2021		November 2021 Safety Performance Improvement Dashboard

November
List of Documents Transmitted Electronically

11/24/2021		November 2021 PI Status Summary
12/15/2021		October 2021 PPIR
Station Initiative		There are no new Station Initiatives for this month.

J. INPO

Date	Doc. No.	Title
		There are no INPO documents for this month.

K. Operational Documents (ODM Minutes, POAs)

Date	Doc. No.	Title
		There are no ODMs for this month.
POA	SAPN 51137089	NRC Question - use of Buna-N with ULSD

L. Safety Limit Violation Report

Date	Doc. No.	Title
		There are no Safety Limit Violation Reports for this month.

M. Significance Determination Process Calculations

Date	Doc. No.	Title
		There are no Significance Determination Process Calculations for this month.

N. Miscellaneous

Date	Title
	There are no miscellaneous documents for this month.

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 2144	T+1 Performance Critique
	Week 2145	T+1 Performance Critique
	Week 2146	T+1 Performance Critique
	Week 2147	T+1 Performance Critique
	November	T+1 Monthly Performance Critique 2144-2147

December
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

Date	LBIE No.	Title
		There are no LBIEs for this month.

B. NRC Outgoing Correspondence (incl. LERs, LARs, etc.)

Date	Letter No.	Title
12/09/2021	DCL-21-092	Nuclear Material Transaction Report for New Fuel
12/14/2021	DCL-21-093	Unit 2 Licensee Event Report 2021-002-00, Unit 2 Manual Reactor Trip Due to Increased Water Level in a Feedwater Heater
12/14/2021	DIL-21-010	Decommissioning Funding Plan
12/15/2021	DIL-21-004	Biennial Submittal of Diablo Canyon Independent Spent Fuel Storage Installation Updated Final Safety Analysis Report

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
	There is no incoming correspondence for this month.

D. PSRC Documents (PSRC Minutes)

Date	Doc. No.	Title
		There are no PSRC documents for this month.

E. CAP Documents (RCAs, WGEs, CAP Effectiveness Evaluations)

Type	Doc. No.	Title
2 WGE	51114401	DA-MW12 Overall Installation Quality Iss
2 WGE	51129023	DA-U2 Sys 23B Main Aux Bldg HVAC - Goal
RCE	51133450 / 51133724	DCPP RCE Report 12/22/2021
Eff. Eval		
11/30/2021		Significance Level 1 and 2 Work Group Evaluations Created 11/01/2021 - 11/30/2021
12/31/2021		List of DN 5.1 and 5.2 Created 12-1-2021 – 12-31-2021
12/30/2021		Sig Level 2 WGE Created 12/01/21 - 12/30/21
12/30/2021		Sig Level 1 & 2 WGE LTCA DA's as of 12/30/21
12/30/2021		Sig Level 3 WGE LTCA DA's as of 12/30/21
12/31/2021		DCPP 1 WGE and 2 WGE Notifications Completed 12/31/2021
12/29/2021		20 Oldest Non-LTCA DA Notifications as of 12/29/2021

December
List of Documents Transmitted Electronically

12/30/2021		CAP Index 12/30/2021
12/30/2021		Open RCEs as of 12/30/2021

F. QV Documents (QPAR, Audit Reports, Audit Schedule, Assessments)

Date	Doc. No.	Title
12/01/2021		Quality Digest, December Edition 2021
12/22/2021	#2021-IA-11	2021 Engineering and Maintenance Rule Audit
12/29/2021	#2021-AS-11	Security Lighting Testing and Repair

G. Nuclear Safety Culture Monitoring Panel Reports

Date	Doc. No.	Title
		There is no Nuclear Safety Culture Monitoring Panel Report for this month.

H. Self Assessment/Benchmarking (SA/BM Reports/Schedules)

Date	Doc. No.	Title
12/02/2021	51131974	Assessment/benchmarking: Mirion Connect
08/25/2021	51125289	2021 BDBTV SAQH report

I. Performance Information (PPIR, Operating Plan, Station Initiatives)

Date	Doc. No.	Title
1/11/2021		Generation Operating Plan 2021 – 2025, No new updates this month.
12/07/2021		December 2021 DCPD Safety Performance Improvement Dashboard
12/06/2021		December 2021 PI Status Summary
12/13/2021		December 2021 Operations Services Performance Improvement Dashboard
12/16/2021		December 2021 Maintenance PI Dashboard
11/09/2021		December 2021 Security & Emergency Services Performance Improvement Dashboard
12/20/2021		December 2021 PI Status Summary
Station Initiative		There are no new Station Initiatives for this month.

J. INPO

Date	Doc. No.	Title
		There are no INPO documents for this month.

K. Operational Documents (ODM Minutes, POAs)

Date	Doc. No.	Title
		There are no ODMs for this month.

December
List of Documents Transmitted Electronically

POA	SAPN 51137589	DA-NRC Question - use of Buna-N with ULS

L. Safety Limit Violation Report

Date	Doc. No.	Title
		There are no Safety Limit Violation Reports for this month.

M. Significance Determination Process Calculations

Date	Doc. No.	Title
		There are no Significance Determination Process Calculations for this month.

N. Miscellaneous

Date	Title
	There are no miscellaneous documents for this month.

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 2021	T+1 Performance Critique 202149
	Week 2021	T+1 Performance Critique 202151
	Week 2021	T+1 Performance Critique 202150
	Week 2021	T+1 Performance Critique 202148
	Week 2021	T+1 Performance Critique 202152

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	February 15-16, 2022
AGENDA ITEMS:	VII-A & B and XIII C & XXXI D
AGENDA TITLE:	Consultant & Legal Counsel Reports; Receive, Accept and Authorize Transmittal of Fact Finding Reports, and receive report by Asst. Legal Counsel.

CONSENT [☐] ACTION [☒] INFORMATION [☒]

Staff Summary: It is anticipated that oral or written reports will be presented at the meeting by Technical Consultants Mr. Wardell and Mr. McWhorter and DCISC Assistant Legal Counsel Mr. Rathie concerning items listed or on other matters.

Fact finding reports may be submitted for consideration and comment by members and consultants since the last public meeting of the DCISC in October 2021. These reports may be received by the Committee, accepted as to form and content and be authorized for transmittal to PG&E for its consideration and response. The Committee reserves the right to revise any fact-finding prior to the inclusion in an Annual Report. Fact finding reports in their final "as accepted form" become a part of the next DCISC Annual Report. Fact Finding Reports and are available for public inspection following their acceptance by the Committee at a public meeting.

RECOMMENDED COMMITTEE ACTION:

Receive reports by Consultants and Assistant Legal Counsel reports and provide direction.
Motions to accept Fact Finding Report concerning fact-findings conducted on November 16-17 and December 7-8, 2021 and January 11-12, 2022.

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	February 16, 2022
AGENDA ITEM:	XXIV-A
AGENDA TITLE:	Update on the Activities of the Diablo Canyon Decommissioning Engagement Panel.

CONSENT [☐] ACTION [☐] INFORMATION [X]

Staff Summary: Ms. Linda Seeley, a Member of the Diablo Canyon Decommissioning Engagement Panel created by PG&E in 2018 will provide an update on the Panel's recent and planned activities.

RECOMMENDED COMMITTEE ACTION: Information item with any action as appropriate.



DIABLO CANYON Decommissioning Engagement Panel

The DCDEP was convened by PG&E as a volunteer, non-regulatory body created to foster and encourage open communication, public involvement and education on DCPD decommissioning plans and activities. It is intended to serve as a forum for the local community to provide direct input to PG&E and regulatory agencies on matters related to DCPD decommissioning. The DCDEP functions solely in an informational and advisory capacity. The meetings and workshops held by the DCDEP allow local community members to provide direct input to PG&E, and subject matter experts to provide information to the panel and the public about DCPD decommissioning.

The DCDEP will help inform PG&E's site-specific decommissioning plans including future land use and repurposing recommendations. Final decisions regarding DCPD decommissioning will be made by PG&E in conjunction with the appropriate regulatory agencies. PG&E intends to continue to engage with the DCDEP and solicit input from the public during the multi-year decommissioning process.

The DCDEP is comprised of representatives from the local community. Each member of the DCDEP serves a two-year term (following the initial staggering of terms). The inaugural panel was formed in May 2018 and has staggered terms as assigned by the membership at its first meeting through a facilitated process. Membership will be renewed or vacancies refilled through approval by a majority of the community members of the DCDEP and PG&E consistent with the DCDEP Charter.

The DCISC in its proposed Second Restated Charter has committed to undertake outreach concerning matters within its purview with other review committees established by the California Public Utilities Commission (e.g., the Independent Peer Review Panel for Seismic Studies at Diablo Canyon Power Plant) and by PG&E (e.g., the Diablo Canyon Decommissioning Engagement Panel) including, but not limited to, providing advanced copies of its public meeting agendas and, upon request, copies of its non-confidential documents and reports.



Linda Seeley

Linda is a nurse-midwife and OB/GYN nurse practitioner, having worked and lived in SLO County for the past 35 years. She is an advanced facilitator of the Work that Reconnects as developed by Joanna Macy, Ph.D. Linda serves as vice-president and spokesperson for San Luis Obispo Mothers for Peace, is a member of the Sierra Club Nuclear-Free Core Team and is a founding member and officer of the local nonprofit Biodiversity First! She is particularly concerned about safer storage of the highly irradiated nuclear waste at Diablo Canyon. Linda strives to give voice to the community on issues of transparency and safe, timely decommissioning.

Linda has served as the DCDEP's unofficial liaison to the DCISC since 2021.

Linda's current term on the DCDEP concludes May, 2022.

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE**AGENDA TRANSMITTAL FORM**

MEETING DATE: February 16, 2021

AGENDA ITEM: XXV

AGENDA TITLE: Committee Discussion and Receive Comments Regarding Post-Shutdown Planning and Plans for Post-Shutdown Role of the DCISC to Review Nuclear Fuel-Related Issues, Scope of Post-Shutdown Activities and Engagement of a Technical Consultant to Review Decommissioning and Spent Fuel Management Issues.

CONSENT []

ACTION [X]

INFORMATION [X]

Staff Summary: The Committee Members, Technical Consultants and Assistant Legal Counsel are expected to discuss and to receive comments from members of the public and representatives of governmental and non governmental organizations concerning the post-shutdown role of the DCISC to review issues associated with nuclear fuel following DCP's cessation of generation operations and the expiration of DCP's operating licenses from the NRC by 2024 and 2025. In its Decision 21-09-003 the California Public Utilities Commission adopted a Settlement Agreement which provides for a post-shutdown safety review role for the DCISC. A Second Restated Charter for the Committee to provide for such a role is presently pending approval.

At the DCISC's public meeting on October 19, 2021, the Members discussed development of a process to develop a scope of post-shutdown activities. After discussion Consultant McWhorter undertook, in association with Consultant Wardell and Assistant Legal Counsel Rathie, to develop the draft DCISC Post-Shutdown - Phases and Timeline, to revise the DCISC Post-Shutdown Previous Roles Matrix which was reviewed previously by the Committee and to compile a DCISC Post-Shutdown - Future Open Items List to identify activities which will necessarily continue after the plant ceases to generate electricity. To inform this discussion copies of these documents are provided.

The Members are also expected to discuss the possible engagement of a technical consultant to assist in review of decommissioning and spent fuel management issues.

RECOMMENDED COMMITTEE ACTION: provide direction as appropriate.



DCISC Post-Shutdown Planning

- Review Second Restated Charter
- Overview of Phases and Timeline Between Unit Shutdowns and All Fuel Moved to ISFSI
- Review Previous Post-Shutdown Roles Matrix in View of Timeline and DCISC Amended Charter
- Review of Possible Modifications to Open Items List for Post-Shutdown Use
- Suggested Steps Forward



DCISC Post-Shutdown – Second Restated Charter

I.A.(1) – Safety of operations shall mean activities in connection with generation of electricity by Diablo Canyon and/or the operation of the Diablo Canyon Spent Fuel Pools and related support systems and the Diablo Canyon Independent Spent Fuel Storage Installation (ISFSI), including the transport of nuclear fuel to and from Diablo Canyon’s Spent Fuel Pools and the storage of nuclear fuel within the Spent Fuel Pools and the transport and storage of nuclear fuel to and within the ISFSI or elsewhere at Diablo Canyon.



DCISC Post-Shutdown – Second Restated Charter (Con’t)

II.F.(2) – The Committee shall undertake outreach concerning matters within its purview with other review committees established by the CPUC (e.g., the Independent Peer Review Panel for Seismic Studies at Diablo Canyon Power Plant) and by PG&E (e.g., the Diablo Canyon Decommissioning Engagement Panel) including, but not limited to, providing advanced copies of its public meeting agendas and, upon request, copies of its non-confidential documents and reports.

III.(1) – The Committee will terminate its review of safety of operations upon further order of the CPUC or upon the date of successful completion of the transfer of all nuclear fuel from both Diablo Canyon Spent Fuel Pools to the ISFSI.



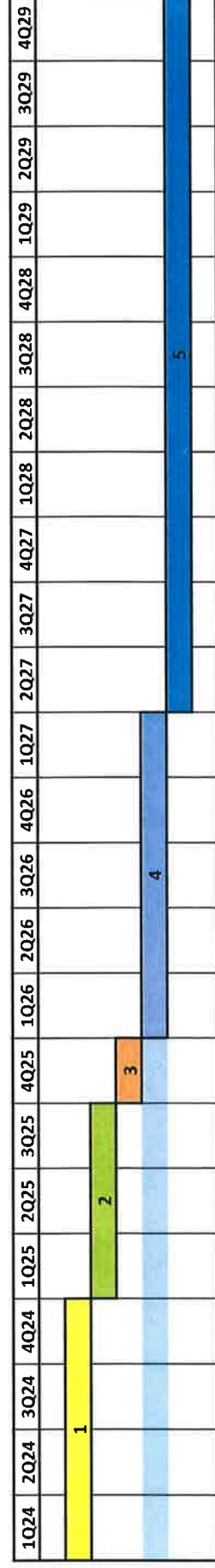
DCISC Post-Shutdown – Phases and Timeline

Phases

Phase	1	2	3	4	5	6
Approximate Timeframe	Until Unit 1 Shutdown November 2, 2024	November 2, 2024 Until Unit 2 Shutdown August 26, 2025	September 2025	September 2025 to Early 2027	Early 2027 to Late 2029	Beyond 2029
Plant Conditions	Two Units Operating	Fuel Removal from U1 One Unit Defueled One Unit Operating	Fuel Removal from U2 Final Transfers into SFPs	Fuel in ISFSI and SFP Risk of Zr Fire	Fuel in ISFSI and SFP No Risk of Zr Fire Cask Loadings/Transfers *	All Fuel at ISFSI
Emergency Plan	Current Emergency Plan			Post-Shutdown Emergency Plan		ISFSI-Only Emergency Plan

* Cask Loadings/Transfers Could Possibly Begin in Phase 4

Timeline of Phases



<----- Assumes Four-year Period for Offload to ISFSI ----->



DCISC Post-Shutdown – Previous Roles Matrix

		Phases Following Cessation of Operations			
		Phase A <i>(New 2 & 3)</i>	Phase B <i>(New 4 & 5)</i>	Phase C <i>(N/A)</i>	Phase D <i>(N/A)</i>
Plant Status →	Areas for DCISC Review ↓	Reactors Shutdown with Fuel Remaining in Reactors.	Fuel Removed from Both Reactors. <i>(2025)</i>	Spent Fuel Pools Empty	Decommissioning Complete.
		Spent Fuel Pools Operational.	Spent Fuel Pools Operational.		
		Limited Decommissioning	<i>Cask Loadings and Transfers</i>		
		ISFSI Operational	<i>DCISC Oversight Ends when SFPs Empty (~2029)</i>		
		ISFSI Operational	ISFSI Operational		
1	Health of Safety Systems	All Systems*	SFP-Related Systems	No	No
2	Health of Electrical and Other Supporting Systems	All Systems*	SFP-Related Systems	No	No
3	Operator Staffing, Training, and Licensing	Yes	Yes; <i>Limited to Fuel Handlers</i>	No	No
4	Regulatory Compliance	Yes	Yes; <i>for ISFSI/SFP</i>	TBD** <i>No</i>	No
5	Offsite Emergency Preparedness	Yes	Yes; <i>Phased Reduction</i>	TBD** <i>No</i>	No
6	Quality Verification and Related Activities	Yes	<i>ISFSI/SFP-Related Systems</i>	No	No
7	Engineering & Other Programs	Yes	<i>ISFSI/SFP-Related Systems</i>	No	No
8	Human Performance	Yes	Yes; <i>Limited to ISFSI/SFP Operations</i>	No	No
9	Performance Improvement and Corrective Action Programs	Yes	Yes; <i>Limited to ISFSI/SFP Operations</i>	TBD** <i>No</i>	No
10	Fire Protection	Yes	SFP-Related Systems	No	No
11	Beyond Design Basis & FLEX	Yes	SFP-Related Systems	No	No



DCISC Post-Shutdown – Previous Roles Matrix (Continued)

		Phases Following Cessation of Operations			
		Phase A (New 2 & 3)	Phase B (New 4 & 5)	Phase C (N/A)	Phase D (N/A)
Plant Status →	Areas for DCISC Review ↓	Reactors Shutdown with Fuel Remaining in Reactors. Spent Fuel Pools Operational. Limited Decommissioning ISFSI Operational	Fuel Removed from Both Reactors. (2025) Spent Fuel Pools Operational. Decommissioning in Progress ISFSI Operational Cask Loadings and Transfers DCISC Oversight Ends when SFPs Empty (~2029)	Spent Fuel Pools Empty Decommissioning in Progress. ISFSI Operational	Decommissioning Complete. ISFSI Operational and/or spent fuel being shipped from site
		Yes	Yes	TBD** No	No
12	ISFSI Operations	Yes	Yes	TBD** No	No
13	ISFSI Storage Cask Aging Management	Yes	Yes	TBD** No	No
14	Management of Risk from External Hazards	Yes	ISFSI/SFP-Related Systems	TBD** No	No
15	Decommissioning Planning and Execution	Yes	SFP-Related Systems	No	No
16	Nuclear Safety Culture and Employee Concerns Programs	Yes	Yes: Limited	TBD** No	No
17	Radiological Protection and Health Physics, including Worker Radiation Safety and Annual Reports	Yes	Yes: Limited to ISFSI/SFP Operations	TBD** No	No
18	Interface Between Security and Safety	Yes	Yes: Limited to ISFSI/SFP Operations	TBD** No	No
19	Plans and Execution of Spent Fuel Shipments Departing DCPP for Long-Term Storage or Disposal	No	No	No	No



DCISC Post-Shutdown – Future Open Items List

Open Item Type:

M= Monitor

F = Follow-up

I = Issue

ITEM NO.	TYPE	OPEN ITEM CATEGORY/DESCRIPTION	Last Actions	Next Action
CO		Conduct of Operations (CO)		
CO-7	M	Review DCCP storm response experience and strategy every two years (or as necessary) during or after annual winter storm season.	5/17FF 3/21FF	As necessary
CO-8	M	Monitor all reactor trips — automatic and manual — and forced outages. (review trip LERs at public meetings).	8/20FF 11/20FF 1/21FF	Post-trip FFs & PMs
CO-9	F	Reactivity Management for SFP operations — review every 18 months.	List at end of OIL	Regularly 4Q22FF
CO-10	M	Mispositioning Errors (Equipment Status for SFP operations) — monitor the status of mispositioning errors and actions to resolve.	4/20FF 7/20FF 12/20FF	12/21FF
CO-11	M	Operator concerns and issues — review periodically the status of operator concerns and issues.	12/18FF 4/20FF 5/21FF	3Q22FF
CO-13	M	Review any implementations of the CAISO load following policy that result in DCCP transients. Review any initiatives to operate DCCP in different modes, such as load following due to renewable energy fluctuations, during its final years of operation. Include 230kV voltage stability issues.	5/19FF 12/19FF	12/21FF As necessary
CO-14	F	The DCISC team found the operator (fuel handlers) retention project to be effectively managed but the Committee should follow this issue closely with reference to licensed operators and well as the station in general.	9/20FF 6/21PM 9/21FF	2Q22FF
	M	Monitor Certified Fuel Handler performance.		
CM		Conduct of Maintenance (CM)		
CM-7	I	Review PG&E's progress in complying with (1) the amendment to 10CFR50.55a, which provides the requirements for ISI of containment structures (degradation) and (2) ASME Code requirements for steel liner weld inspections.	7/12FF 8/17FF 11/19FF	Each Pair of RFOs 3Q21FF



DCISC Post-Shutdown – Future Open Items List (continued)

CM-10	M	On-line Maintenance: review the implementation of on-line maintenance bi-annually, including the 12-week Rolling Maintenance Schedule about how well it is working & impacting risk. Review trend of amount of on-line maintenance. DCCP Assessment of Maintenance Risk and On-Line Maintenance Risk Procedures have been substantially upgraded with the addition of an Integrated Risk Review Team.	See list at end of OIL	Regularly 2Q22FF
CM-13	M	Review Maintenance Department performance measures, staffing, etc. approximately annually.	1/20FF 3/21FF	1/22FF
	M	Monitor Maintenance Department performance in areas related to spent fuel storage and Emergency Preparedness.		
EN		Engineering Programs (EN)		
EN-16	F	DCCP Systems – review a system (or structure or component), system health, long-term plan, Maintenance Rule performance & walkdown with System Engineer at FFs. [Note: Systems reviewed are listed with dates at the end of this Open Items List. <i>(Consider moving smaller number of items from end to body of list.)</i>]	See list at end of OIL	Regularly
EN-19	F	Review every 12-18 months major Engineering Programs, including Configuration Management, Management, System Engineering (system health & long-term plans), Valve Testing, Margin Management, Staffing, etc. [Note: Programs reviewed are listed with dates at the end of this Open Items List. <i>(Consider moving smaller number of items from end to body of list.)</i>]	See list at end of OIL	Regularly
EN-20	F	Each Member should review or observe Plant Health Committee, Notification Review Team, Corrective Action Review Board, Performance Review Quarterly Meeting, and other regular meetings.	See list at end of OIL	Regularly 12/21FF
HP		Human Performance: Human Errors and Improving Safety & Efficiency of Plant Performance		
HP-1	M	Review human performance & human behavior items (including error reduction programs, HP PIs, aberrant behavior statistics, FFD, stress reduction programs, Personnel Accountability Policy, Human Performance Steering Committee & Subcommittee, Centers of Excellence, Org. Development). Review biennially operator aging, physical fitness, "no solo" issues, attention enhancement, stress management, & incentives for operator focus. Further observations and improvements in the Management Observation Program should be reviewed by DCISC.	10/19PM 3/20FF 12/20FF 4/21FF	2Q22FF
HP-25	M		4/19FF 7/21FF	1 or 2Q23FF
HS		Health, Nuclear Safety and Safety Conscious Work Environment		
HS-6	F	Follow DCCP progress in establishing/improving its safety culture (and its subset Safety Conscious Work Environment, including Safety Culture Monitoring Panel, and including Employee Concerns & Differing Professional Opinion Programs).	8/19FF 8/20FF 8/21FF	10/21PM 3Q22FF
PI		Performance Improvement Programs		
PI-1		DCCP Performance Improvement Programs: Corrective Action, Self-Assessment, Operating Experience [and line use of OE], Benchmarking, etc. Programs reviewed are listed with dates at the end of the Open Items List. <i>(Consider moving smaller number of items from end to body of list.)</i>	See list at end of OIL	At least once per year 9/22FF



DCISC Post-Shutdown – Future Open Items List (continued)

EP		Emergency Preparedness (EP)	11/18FF 9/21FF	10/21PM 9/22FF
EP-2	M	Attend and observe DCCP emergency drills and exercises annually [including Hostile Action Based Exercises], paying special attention to JIC communications to the media and public, including radiation release communications to the public, use of social media, coordination of information release with SLO County, and extension of drills to better exercise FMTs & JMC.		Next evaluated exercise (FFPM)
RA		Risk Assessment and Management (RA)		
RA-5	M	Review overall [non-seismic] PRA program annually. Include Fire PRA Upgrade & Shutdown Analysis in next review. Much work underway (including plant specific shutdown risk analysis). Review PRA Group resources/capabilities. Turbine Bldg. (CCW & Condenser) internal flooding. Include external flooding and tsunami risk (see SC-6).	9/20FF 9/21FF	3or4Q22 FF RJB
NS		Nuclear Safety Oversight and Review (NS)		
NS-5	M	Monitor NSOC meetings periodically to observe their processes and their review of nuclear safety issues.	11/20FF 3/21FF 7/21FF	Next meeting [see FFPM]
NS-9	M	Monitor DCCP's program to track INPO Areas for Improvement. Review with DCCP Coordinator.	7/20FF 1/21FF 8/21FF	3Q22FF
		Monitor any activities of external oversight entities as applicable (MSRC, INPO, etc.)		
RP		Radiation Protection (RP)		
RP-3	M	Regularly review outage RP performance.	12/19FF 12/20FF 7/21FF	Each RFO
RP-12	M	Review annual DCCP radioactivity release report (or other documents) each year. Review at Summer or Fall FFs.	7/20FF 2/21PM 7/21FF	2or3Q22 FF
QP		Quality Programs (QP)		
QP-3	M	Review the activities, organization and results of QV audits as well as PG&E's outside biennial audits, including timeliness of corrective actions. Review annually – include 4 th quarter QPAR with yearly results.	3/21FF 5/21FF	2Q22FF
QP-9	F	Software QA Program	See list at end of OIL	Regularly



DCISC Post-Shutdown – Future Open Items List (continued)

NF		Nuclear Fuel Performance (NF)		12/19FF 3/21FF	Each RFO
NF-9	M	Nuclear Fuel Performance & Issues (review after RFOs)			
ER		Equipment Reliability and Life Cycle Management (ER)			
ER-5	M	Monitor the Equipment Reliability Process approximately annually. The indicators for Deficient Critical Components Backlog and Operational Work-arounds rated as needing improvement and the DCISC should continue its review of this item in the future.	See list at end of OIL	Annually	
OE		Organizational Effectiveness & Development (OE)			
OE-1	F	Review DCCP Operating Plan each January after development.	2/21PM 3/21FF	2/22PM	
OE-2	F	Station Excellence Plan & Station Oversight Committee (4 th Thursday of every month at 9:00am)	3/21FF	10/21PM	
SE		System and Equipment Performance/Problems (SE)			
SE-39	F	Review and tour the inspections and repairs of concrete Intake Structures following selected refueling outages.	12/19FF 8/21FF	3Q22FF	
SE-40	F	Monitor the status of transformers & leakage, failures, corrective actions. Follow status of transformer protection barrier.	See list at end of OIL	Regularly 2Q22FF	
SE-49	F	Emergency Diesel Generators (EDGs)	See list at end of OIL	Regularly	
SE-50	F	Maintenance Rule Functional Failures	See list at end of OIL	Regularly 2Q22FF	
OM		Outage Management (OM)			
OM-3	M	During outages, monitor Outage Coordination Center, Control Room, and containment walkdown/inspection (end of outage). Review outage turbine work. Review Steam Generator performance metrics and inspection results.	3/20FF 11/20FF	Each RFO 3/22FF	
OM-4	M	Review Outage Safety Plan, safety margin trends, outage results, including clearances, following each outage at FFs and PMs.	12/19FF 9/20FF 7/21FF	Each RFO 3/22FF	
OM-5	F	DCCP has determined that it needs to do a better job of foreign material exclusion (FME) and this resolution appeared satisfactory to the DCISC team. [Note: FME Program review dates at the end of the Open Items List.]	See list at end of OIL	Each RFO 2Q22FF	



DCISC Post-Shutdown – Future Open Items List (continued)

SEC		Security (SEC)		
SEC-3	M	Monitor interaction of Security and Operations, Engineering, Maintenance, and Emergency Preparedness for effects on nuclear safety. Plant security per se not reviewed but reviewed only in the context of impact on plant operation.	12/19FF 12/20FF	4Q21FF
SEC-4	M	Review DCCP progress in implementing their cyber security program in compliance with NRC schedule. Implementation complete.	3/19FF 11/20FF 9/21FF	10/21PM 3Q23FF
SF		Independent Spent Fuel Storage Installation – ISFSI (SF)		
SF-1	M	Monitor ISFSI operations, including cask transfer. Review following next campaign.	10/20PM 5/21FF	2Q22FF
SF-2	M	Follow technical advances of relative risks of cask and pool storage. NRC Staff study and Commissioners' vote. Monitor aging management plans and needs for opening casks to inspect fuel. Monitor SONGS & Humboldt Bay spent fuel transfer plans. Include corrosion of metals	12/19FF 4/21FF	2Q22FF
SF-3	M	Review the seismic adequacy of ISFSI in its license extension. Use latest seismic analysis.	6/18PM 10/19PM	2Q22FF RJB
	M	Monitor the licensing and procurement of new Spent Fuel Casks.		
SC	M	Seismic, Tsunami and Other External Events		
SC-3	M	Long-Term Seismic Program: review periodically. Review significant seismic events as they occur. Reviewed at 6:09 PM.	8/16FF 3/19FF	3Q22FF RJB
SC-12	F	Workplace seismic safety	5/19FF 12/19FF 12/20FF	12/21FF PFP
	M	Monitor the seismic adequacy of SFP and ISFSI and any changes in seismic analysis. Coordinate with IPRP.		
FP		Fire Protection (FP)		
FP-5	M	Review NFPA-805-based Fire Protection Program and Systems every two-three years, including QV audits and NRC triennial inspections relative to spent fuel storage and Emergency Preparedness. Review the health and correction of degraded systems every six months. Monitor fire doors (Plant Door Life Cycle Management Plan) for correction of impairments	1/19FF 3/19FF 5/21FF	Regularly 3Q22FF
LD		Learning & Development Programs (LD)		
LD-3	M	Review non-license technical, operations & accredited training programs at least annually.	7/19FF 5/20FF 1/21FF	1/21FF



DCISC Post-Shutdown – Future Open Items List (continued)

LD-6	F	Observe operator license re-qualification classes periodically in FF meetings.	9/20FF 1/21FF	1/21FF
	M	Review Certified Fuel Handling Operator initial and requalification training programs		
NR		Nuclear Regulatory Commission Items (NR)		
NR-3	M	Monitor the Non-Cited Violation Tracking & Trending Program annually at the Jan/Feb Public Meetings.	3/year	Each PM
NR-4	F	Meet with NRC Resident Inspectors regularly.	Most FFs	Regularly
	M	Monitor termination of Part 50 license and renewals of Part 72 license with regards to Spent Fuel handling and storage.		
DEC	F	Decommissioning		
DEC-1	F	Review DCCP decommissioning plans periodically as a result of the Joint Proposal plant shutdown in 2025. Review the timing of spent fuel transfer from wet to dry storage and when the spent fuel pools are decommissioned the plant will lose the capability to open multipurpose canisters for inspection. DCISC should actively review the decommissioning plans for DCCP because of the potential impact on staffing and future options with respect to managing spent fuel. Dr. Peterson observed there have been multiple approaches taken to decommissioning in terms of rate and timing and the DCISC will need to review and discuss with its appointing entities whether and to what extent it will engage in a review of PG&E's decommissioning plans for DCCP. He [Mr. Jones] reported part of the preplanning efforts to meet the charge from the CPUC is the completion of a fuel study that is now in its second draft for review to determine how DCCP can move past the ten-year window to achieve a seven-year window. Dr. Budnitz reported the DCISC will wait and watch the report which comes out of that evaluation.	2/19PM 10/19PM 10/20PM	10/21PM
DEC-3	F	DCISC is at this time principally interested in decommissioning due to the potential impacts during the period of plant operation and will seek clarification about whether the DCISC should play a role post-shutdown.	2/20PM 10/20PM	Close?
DEC-4	F	Emergency preparedness during decommissioning.	8/19FF 2/20PM 10/20PM	10/21PM
	M	Monitor Post Shutdown Decommissioning Activities Report (PSDAR) as to SFP and ISFSI activities.		
	M	Monitor Nuclear Decommissioning Cost Triennial Proceedings as to SFP and ISFSI activities.		
O		Other Items (O)		
O-1	F	Perform observations of evolutions (work processes) within the plant periodically. Continue with these about annually. Work process observations: Observe in the plant work processes important to nuclear safety, such as operator rounds, Control Room shift turnover, surveillance tests, preventive and corrective maintenance, system modifications, system walk downs with system engineers, outage activities, etc.	12/19FF 1/20FF 7/21FF	Regularly 11/21FF 12/21FF
O-2	F	COVID-19 response/initiatives/practices.	1/21FF 5/21FF	1/22FF



DCISC Post-Shutdown – Future Open Items List (continued)

DCPP Systems/Components Reviewed Periodically
(suggest moving systems to body of list above)

4 kV – Jan-2020

230 kV & 500 kV – Dec-2019

Aux Feedwater – Sep-2024

Aux Saltwater – Mar-2020

Aux Bldg Ventilation – Apr-2024

Chemical & Volume Control System and High Pressure Injection – Jan-2024

Component Cooling Water – Apr-2020

Compressed Air – Jul-2020

Condensate & Feedwater – Sep-2019

Containment Structure – Nov-2019

Containment Spray – Aug-2019

Containment Ventilation and H₂ Purge – Aug-2020

Control Room Simulator – Nov-2020

Control Room Ventilation ?? – Jan-2021

Digital Systems – Sep-2018

DC Power – Apr-2019

EDG – Jul-2024

Fire Protection & Detection Systems for Spent Fuel – Aug-2020

Nuclear Instrumentation & In-core Instrumentation – Sep-2020

Plant Protection System – Mar-2024

Radiation Monitoring for Spent Fuel – Apr-2021

Radwaste Processing – Nov-2020

Reactor Coolant System & Pumps – Aug-2024

RCS Process Control System – May-2020

Refueling Equipment – Dec-2018

RHR – Jan-2024

Rod Control & Indication – Sep-2020

Safety Injection Pumps – Jan-2024

Spent Fuel Pool Cooling & HVAC – July-2024

Steam Generators – Aug-2020

Special Protection System – Mar-2020

Turbine-Generator – Dec-2020

Electric Power to Spent Fuel and EP Systems
Cooling Water to Spent Fuel Systems
Ventilation for Spent Fuel and EP Systems
Spent Fuel and Cask Handling Systems



DCISC Post-Shutdown – Future Open Items List (continued)

DCPP Programs Reviewed Periodically

(suggest moving programs to body of list above)

10CFR50.59 Program – July 2021
ALARA – Sep 2019
Air Operated Valves – Dec 2020
Benchmarking – Nov 2018
Boric Acid Corrosion Control – Apr 2021 (review biennially)
Buried Piping & Tanks – Jul 2020
Chemistry – Aug 2021
Spent Fuel Cranes – Sep 2019
Configuration Management – May 2019
Corrective Action – CARB – Apr 2021
Emergency Preparedness Exercises – Sep 2021
Employee Concerns Program – Aug 2020
Equipment Environmental Qualification – Mar 2020
Equipment Reliability – Sep 2021
Fire Doors & Door Life Cycle Mgmt. Plan – Mar 2019
Fire Protection Program (NFPA-805) – May 2021
FLEX Program 72 – Apr 2019
Flow Accelerated Corrosion – Apr 2019
Foreign Material Exclusion – Dec 2020
In-service Inspection Program – Apr 2019
Integrated Risk Assessment Program – Apr 2020
Large Motors – Jan 2019
Long-Term Capital Planning Process – Dec 2016
MIDAS – Aug 2018
Maintenance Rule – Apr 2021
Margin Management Program – May 2020
Motor Operated Valves – Dec 2020
Notification Review Team – Mar 2020
Nuclear Fuel Program – Mar 2021
On-Line Maintenance – Apr 2020
Operating Experience – Aug 2018 (review biennially)

Operability Assessment Program – Mar 2017
Operational Decision Making – Sep 2020
PPA Programs (non-seismic) – Sep 2021
Performance Improvement – Apr 2019
Performance Review Quarterly Meeting – Apr 2021
Plant Health Committee – Aug 2021
Reactivity Management – May 2021
Safety-Security Interface – Dec 2020
Self-Assessment – Aug 2020
Single Point Vulnerabilities – Sep 2019
Seismic PPA – Sep 2017
Seismically Induced System Interactions – Nov 2020
Software QA – Aug 2021
Spent Fuel Management – May 2021
System Engineering – Nov 2019
Transformers, Large – Jan 2021
Troubleshooting – Jan 2020
Tsunami Hazard Analysis – Sep 2017
Vibration Monitoring – Mar 2021
Fuel and Cask Aging Management



Suggested Steps Forward

By End of 2022:

- **Create and Start Regular Updates to Separate Post-Shutdown Open-Items List**

Starting in 2023:

- **Review/Modify Both Open-Items Lists (Operational and Post-Shutdown) to Plan 2023-2025 Activities**
- **Consider Future Relationship and Possible Synergies with DCDEP and IPRP**

By End of 2024:

- **Consider Post-Shutdown Meeting Frequencies**
 - **Fact-Finding Meetings**
 - **Public Meetings**