

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

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

* * * * *

Tuesday & Wednesday
October 19-20, 2021
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: 872 7752 1421

Zoom Webinar Meeting Passcode: 192775

<https://us02web.zoom.us/j/87277521421?pwd=WXhGaFp0ZGM1K0s3V0xZcUdNMmw0Zz09>

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1 (669) 900 6833; 1 (408) 638 0968; 1 (346) 248 7799; 1 (253) 215 8782

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 - 10/19/2021 – 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 June 23-24, 2021, Public Meeting. Accept

V ACTION ITEMS

- A. DCISC 31st Annual Report on
Safety of Diablo Canyon Operations;
July 1, 2020 – June 30, 2021. Discussion/Approval
- B. Update on Financial Matters and
Committee Activities during 2021 & 2022. Discussion/Action
- C. Discussion of Open Items List and Process for
Revising the Scope of Post-shutdown Committee Activities Discussion/Action

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

- A. Consultant Richard D. McWhorter Jr.:
Fact-finding Topics; Report on and Acceptance of
July 14-15, 2021 Fact Finding Report.
- B. Assistant Legal Counsel Robert W. Rathie:
Administrative, Regulatory and Legal Matters.

VIII ADJOURN MORNING MEETING

Afternoon Session – 10/19/2021 – 1:30 P.M.

IX RECONVENE FOR AFTERNOON MEETING

X COMMITTEE MEMBER COMMENTS 2

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, 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.

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

- C. Consultant R. Ferman Wardell:
Fact-finding Topics; Report on and Acceptance of the
August 18-19, 2021 Fact Finding Report.

XIV ADJOURN AFTERNOON MEETING

Evening Session – 10/19/2021 – 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) Final Root Cause Evaluation and Corrective Actions for the Unit 2 Forced Outages to Repair Main Generator Vibration Issues and Hydrogen Leaks.

XIX PRESENTATION BY THE DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

A. Informational Presentation by the Committee:

- 1) 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. Kastenbergl and Legal Counsel Robert R. Wellington.

XX ADJOURN EVENING MEETING

Morning Session – 10/20/2021 – 9:00 A.M.

XXI RECONVENE FOR MORNING MEETING

XXII COMMITTEE MEMBER COMMENTS

XXIII 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.*

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

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

- 5) Update on Decommissioning Planning, Nuclear Decommissioning Cost Triennial Proceedings, License Amendments, and Spent Fuel Cask Procurement.
- 6) Cyber Security Program Update.

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

- D. Consultant Richard D. McWhorter Jr.:
Fact-finding Topics; Report on and Acceptance of
September 13-14, 2021 Fact Finding Report.

XXVI CLOSED SESSION - Personnel Matter – (Govt. Code §11126).

XXVII ADJOURN MORNING MEETING

Afternoon Session - 10/20/2021 - 1:00 P.M.

XXVIII RECONVENE FOR AFTERNOON MEETING

XXIX COMMITTEE MEMBER COMMENTS

XXX 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.*

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

- D. Informational Presentations Requested by the Committee of PG&E:
- 7) Update on Nuclear Safety Culture, Safety Conscious Work Environment and Employee Concerns Program.

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 ONE-HUNDREDTH 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:

October 19, 2021

AGENDA ITEM:

IV-A

AGENDA TITLE:

Minutes of June 23-24, 2021
Public Meeting

CONSENT [X]

ACTION []

INFORMATION []

Staff Summary: Attached are the Minutes which have been prepared from the Committee's ninety-ninth public meeting held on June 23-24, 2021, 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

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**MINUTES
of the
DIABLO CANYON INDEPENDENT SAFETY COMMITTEE'S
JUNE 23-24, 2021, PUBLIC MEETING
[For approval at the October 19-20, 2021, Public Meeting.]**

Wednesday & Thursday
June 23-24, 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 service 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 June 23, 2021, public meeting of the Diablo Canyon Independent Safety Committee (DCISC), the ninety-ninth public meeting of the Committee, was called to order by Committee Chair Dr. Peter Lam at 9:00 A.M. Dr. Lam briefly reviewed the professional backgrounds and appointment to the DCISC for each of his fellow Members, Dr. Robert J. Budnitz, the appointee of the California Attorney General, Dr. Per F. Peterson, the appointee of the Governor of California, and Dr. Lam introduced himself as the appointee of the California Energy Commission and current serving DCISC Chair. Dr. Budnitz briefly reviewed Dr. Lam's professional background.

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

DCISC Assistant Legal Counsel Robert Rathie was recognized and he announced that the AGP Video technicians requested that there be no cellphone use in proximity to the microphones in that doing so could interfere with the recording of the meeting. He also announced that all unvaccinated persons in the meeting room were asked to wear face masks and he reported that all Committee Members and staff were fully vaccinated against COVID-19. Mr. Rathie reported this public meeting was also being conducted as a Zoom webinar and members of the public may

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make comments and interact with the Committee via Zoom by referencing the information given on the agenda and online at the Committee's website www.dcisc.org.

II INTRODUCTIONS

Dr. Lam 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 Robert W. Rathie. Dr. Lam then introduced Mr. Thomas R. Baldwin, P.E., Pacific Gas & Electric Company (PG&E) Director of Generation Business Planning and Mr. Hector Garcia, Diablo Canyon Power Plant (DCPP) Chief Nuclear Officer Support Manager. Dr. Lam remarked Mr. Baldwin and Mr. Garcia each play key roles on behalf of PG&E and DCPP in working with the DCISC in coordinating 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.

Dr. Gene Nelson, a representative of Californians for Green Nuclear Power (CGNP) was recognized. Dr. Nelson observed CGNP continues to advocate at the county, state and federal levels for the continued safe operation of DCPP beyond 2025. He reported CGNP recently uncovered information that the California Public Utilities Commission (CPUC) in its mid-range Integrated Resources Planning (IRP) proceeding is planning after 2025 to replace the electric power generated by DCPP with 5,000 megawatts of power generated by what he described as highly polluting coal-fired generation from Wyoming. Dr. Nelson remarked the CPUC has used the legal euphemism "unspecified imports" to refer to this coal-fired produced power. He commented CGNP has been highly critical of this plan in its recent filings with the CPUC and has abundant documentation in support of its position against the environmental harms that would result. He reported that only three of the 50 parties who filed comments on the CPUC's IRP proceeding mentioned the connection between the term "unspecified imports" and coal-fired generation and Dr. Nelson stated that political pressure may be the reason, as CGNP's sources have stated, that the State of California pressured PG&E to close DCPP. Dr. Nelson stated CGNP has contacted the San Luis Obispo County planner who is managing the County's review of the shut down and decommissioning of DCPP and has raised objections to the improperly scoped Environmental Impact Report (EIR) in PG&E's initial filings with the County. Dr. Nelson observed that a section in the EIR which focused on greenhouse gas emissions distinguished the operation of DCPP from the operation of the San Onofre Nuclear Generating Station (SONGS) which is no longer operating due to what Dr. Nelson stated was the Southern California Edison Company's mismanagement of the replacement of its steam generators. He reported there were never any adverse health consequences associated with the shutdown of SONGS, however, here have been massive but delocalized harms from increased coal

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combustion in the western part of the United States and CGNP's legal team will be drafting a stronger objection to the County which will address the issue of unspecified imports.

Dr. Nelson reported CGNP will refile its complaint with the Federal Energy Regulatory Commission (FERC) and will focus on the lethal Texas power system inadequacies revealed during the polar vortex event in February 2021. He reported during this event nuclear power performed best while natural gas electric production lost approximately 5,000 megawatts of generation mostly due to lack of fuel and the performance of renewables was inadequate with very low capacity factors.

Dr. Budnitz thanked Dr. Nelson for his comments and he observed that Dr. Nelson's comments addressed important matters that were, however, outside the DCISC's remit which remains the safety of operation of DCPD.

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. Bob Lloyd of AGP Video was recognized. Mr. Lloyd reported he was traveling by car and enroute to Sacramento, California and was listening to a clear transmission via Zoom of the meeting. Dr. Peterson remarked that the hybrid, in-person/Zoom webinar format for this public meeting is quite consistent with the mandate in the Committee's Restated Charter to provide public outreach. Dr. Peterson observed he was grateful to once again be meeting in person and to be able to conduct fact-finding in person at DCPD and he expressed his gratitude to the scientists and researchers who developed a vaccine for the COVID-19 coronavirus which has made this possible once again. Dr. Peterson remarked he hoped the same kind of dedication might be applied to solving other critical global problems.

IV ACCEPTANCE OF MINUTES

The item concerned review and acceptance of the Minutes of the Committee's February 16-17, 2021, public meeting conducted entirely as a Zoom Webinar. A draft of the February 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 February 2021 Minutes. The Members and Technical Consultants 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 February 2021 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. Lam complimented Ms. Righetti of the Wellington Law Offices and Mr. Rathie for a job well done in preparing the Transcript and the Minutes of the DCISC's February 2021 public meeting. Dr. Lam 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 February 2021 public

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meeting were accepted subject to inclusion of the changes provided to the Committee's Assistant Legal Counsel. The February 2021 Minutes will become a part of the Committee's 31st Annual Report.

V ACTION ITEMS

A. Update on Financial Matters and Committee Activities During 2021. Dr. Lam requested Mr. Rathie to report on this item. Mr. Rathie reported that the Committee conducts its financial affairs on a calendar year basis and for the 2020 calendar year the DCISC ended the year with a surplus balance of unspent funds from the grant of funds provided for the Committee's operation by PG&E's ratepayers. In accordance with a motion adopted at the February 2021 public meeting the balance of the funds unspent in 2020 have now been remitted to PG&E for credit to the ratepayers. Mr. Rathie stated the reason for a larger remittance in 2020 than in past years was due to the Committee conducting most of its activities remotely including public meetings and fact-findings. Based on the Committee's activities to date in 2021, Mr. Rathie stated he expects the Committee will finish calendar year 2021 without expending all funds provided for its operation and will again remit those funds to the ratepayers. He reported the Committee's accountants have drawn down two quarters of the funds provided for 2021. He reported that as 2021 concludes, the Committee will move into the period of preparation of its 31st Annual Report and its activities and spending in support of that effort will increase.

Mr. Rathie directed attention to the green colored sheets in the public agenda packet which contained a list of fact findings and public meetings scheduled and some key dates for plant activities. This list is prepared and maintained by Consultant Wardell.

Dr. Lam stated he is honored to have served on the DCISC for four terms and reported his present term expires in seven days. Dr. Gene Nelson was recognized. In response to Dr. Nelson's question as to whether a member of the public might support a renomination to the Committee Dr. Budnitz replied that the process of appointment of members of the Committee is entirely under the purview of the CPUC. At the present time it is too late to provide input to the CPUC on the pending appointment by the California Energy Commission (CEC) of the seat held by Dr. Lam but one could write to the CEC Chair and advocate for one of the candidates recommended by the President of the CPUC (and ratified by the Commission). Prior to selection of a member, which takes place every year, the CPUC makes public the name and professional qualifications of each candidate through its website and invites public comment. Dr. Budnitz observed that the CPUC conducts an open nomination process and the CPUC reviews the nominees for their qualifications. The names of up to four qualified persons are provided to the appointing entity making the appointment, i.e., the Governor, the California Attorney General, or the Chair of the California Energy Commission. Dr. Lam observed this process is transparent and traceable in every respect. Dr. Lam observed that in accordance with California law a member of the DCISC continues to serve until he or she is reappointed or replaced.

Ms. Rochelle Becker, Executive Director of the Alliance for Nuclear Responsibility, was recognized. Ms. Becker stated that any person can request to be added to the service list for the

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nomination process by contacting David Zizmor, Esq. at the CPUC Energy Division at David.Zizmor@cpuc.ca.gov.

B. Discussion of Issues on Open Items List.

Dr. Lam requested Consultant Wardell lead a review of items on the Open Items List, which he described as a very 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 and 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>
CO-10	Mispositioning Errors	Next Action 11/21 FF
CO-11	Operator Concerns & Issues	Next Action 3Q22 FF
CO-14	Operator Retention Project	Next Action 2Q22 FF
CM-10	On-Line Maintenance	Next Action 2Q22 FF
HP-1	Human Performance	Next Action 1Q22 FF
HP-25	Management Observation Program	Next Action 7/22 FF
HS-6	Safety Culture/SCWE	Next Action 8/21 FF
PI-1	Performance Improvement Programs	Next Action 8/21 FF
EP-2	Observe Emergency Drills/Exercises	Next Actions 7/21 FF & 9/21 FF
RA-5	Non Seismic PRA Program	Next Action 9/21 FF
NS-5	Monitor NSOC Meetings	Next Action 7/21 FF
NS-9	Monitor Program to Track INPO AFIs	Next Action 8/21 FF
RP-12	Annual Radioactivity Release Reports	Next Action 7/21 FF
QP-3	Review Quality Verification Audits	Next Action 2Q22 FF
QP-9	Software Quality Assurance Program	Next Action 8/21 FF
ER-5	Equipment Reliability Process	Next Action 9/21 FF
OE-2	Station Excellence Plan	Add Item/Next Action TBD
SE-26	Reactor Pressure Vessel Compliance	Close
SE-39	Inspections/Repairs of Concrete at Intake	Next Action 8/21 FF
SE-40	Status of Transformers	Next Action 2Q22 FF
SE-49	Emergency Diesel Generators	Next Action 7/22 FF
SE-50	Maintenance Rule Functional Failure	Next Action 2Q22 FF
OM-3	Outage Coordination Center, Control Room, & Containment during Outage	Next Action 2Q22 FF

¹ Key to abbreviations used: Area for Improvement (AFI), Fact-finding (FF), Institute for Nuclear Power Operations (INPO), Low Temperature Overpressurization System (LTOP), PG&E Nuclear Safety Oversight Committee (NSOC), Probabilistic Risk Assessment (PRA), Public Meeting (PM), Quarter (Q), Root Cause Evaluation (RCE), Safety Conscious Work environment (SCWE).

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OM-5	Foreign Material Exclusion	Next Action 2Q22 FF
SEC-4	Cyber Security	Strike Bracketed Language in text
LD-3	Non License Training Programs	Next Action 1Q22 FF
LD-6	Observe License Training	Next Action 1Q22 FF
O-1	Observe Work Processes	Next Action 7/21 or 9/21 FF
O-2	COVID-19 Response/Practices	Next Action 9/21 FF
10/20PM-12	Unit-2 Main Generator Forced Outages	Next Action 9/21 FF
10/20PM-13	Cancelled Project Review	Next Action 8/21 FF
02/21PM-1	Spent Fuel Risk Management	Close
02/21PM-3	2Z22 Forced Outage	Close to 10/20PM-12
02/21PM-4	Cybersecurity Program	Close to SEC-4
02/21PM-5	NSOC Review INPO Corporate Assessment & LTOP System	Close to NS-5 and NS-6
02/21PM-6	Unit 2 Forced Outages RCE	Close to 10/20PM-12
02/21PM-7	Safety System Functional Failure	Close to 4/21 FF Report
02/21PM-8	LTOP Event	Close to 4/21 FF Report
02/21PM-9	South Texas Project Unit Trip	Next Action 7/21 FF

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

DCISC Systems/Component/Program Periodic Review

<u>Program Reviewed</u>	<u>Action Taken</u>
Excellence Plan	Close, replace with Station Excellence Plan
Long-Term Capital Planning Process	Close to 10/20PM-13

Dr. Lam thank Mr. Wardell for an excellent presentation.

Ms. Rochelle Becker of the Alliance for Nuclear Responsibility was recognized. Ms. Becker remarked concerning item SEC-4 regarding cyber security there has been much media coverage of late concerning large companies cyber capabilities being hacked and the companies blackmailed and she suggested the DCISC may want to review SEC-4 more frequently than every two to three years. Dr. Budnitz replied and agreed cyber security worldwide is moving very fast and there is an electrical industry and nuclear industry group working on these issues in which PG&E participates. Dr. Budnitz remarked the electrical and pipeline industries have benefitted from the nuclear industry's cyber experience as nuclear powerplants have always been isolated in terms of internet technology interface but he observed it is difficult to be proactive in this context. Dr. Peterson observed the DCISC Charter involves review of safety and the details of specific cyber security designs do not fall within the scope of the Committee's review with the exception of their potential for interaction between cyber security issues and safety. He commented good cyber security implementation practices have a beneficial effect on safety

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systems. Dr. Lam commented the NRC would likely prohibit a detailed system review of cyber security by the DCISC under the NRC's "need to know rule. Mr. McWhorter suggested and the Committee agreed to remove the bracketed statement in item SEC-4 concerning a two or three year periodic review [that change is made on the review of the Open Items List above].

C. Nomination and Election of DCISC Chair and Vice-Chair for the July 1, 2021 - June 30, 2022 Term.

On a motion made by Dr. Lam, seconded by Dr. Peterson with Dr. Budnitz abstaining the Committee elected Dr. Budnitz to the position of DCISC Chair and on a motion made by Dr. Budnitz, seconded by Dr. Lam, Dr. Peterson was elected to the position of DCISC Vice-Chair for respective terms of office from July 1, 2021 through June 30, 2022.

A short break followed.

VI COMMITTEE MEMBER REPORTS AND DISCUSSION

A. Public Outreach, Site Visits and Other Committee Activities:

The Members confirmed public meetings of the DCISC for October 19-20, 2021 and February 15-16, and June 22-23, 2022, and the Members and Consultants then scheduled a public meeting for September 28-29, 2022, [changed from October 19-20, 2022] tentatively with a public tour of the power plant. Mr. Garcia stated he would check and subsequently confirm that DCPD could support a public meeting of the DCISC on September 28-29, 2022. Mr. Rathie mentioned the October 19-20, 2021, public meeting is expected to be held at an alternate venue and not at the Avila Lighthouse Suites due to a scheduling conflict.

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

[2021] July 14-15 PFP/RDM [to be held on-site]; August 18-19 PL/RFW; September 13-14 RJB/RDM with RDM holding over to observe the Emergency Preparedness Exercise on September 15; November 9-10 RJB/RFW; December 7-8, PFP/RDM; and

[2022] January 11-12 PL/RFW; March 22-23 [changed from 8-9] RJB/RDM; April 12-13 PFP/RFW (during 1R23); May 10-11 PL/RDM; July 13-14 PFP/RFW; August 16-17 PL/RDM; September 13-14 RJB/RFW.

Mr. Garcia stated he would review the dates set and revised at this public meeting for fact finding and confirm that DCPD can support fact-finding by the DCISC on those dates. Mr. McWhorter observed that while the Committee members and consultants may be able to return to conducting fact-finding onsite at DCPD there may be some portions of those fact-findings

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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which will continue to need to be conducted remotely. The Members and Technical Consultants discussed with Mr. Rathie the propriety of making inquiry as to the number of DCPD personnel who have been vaccinated against COVID-19 and the ability of PG&E to verify vaccination status of its employees. Mr. Baldwin remarked that the latest guidance is for a self-declaration to be requested and those who decline to state or are not vaccinated will be required to continue to wear a mask and practice social distancing when onsite.

Dr. Lam stated he was invited by the Diablo Canyon Decommissioning Engagement Panel's liaison to the DCISC, Ms. Linda Seeley, to participate by way of Zoom in a meeting of the Panel where the subject matter was dry cask storage. Dr. Lam reported he participated in the Panel's meeting and he confirmed that he was very clear that the opinions he expressed on that occasion were entirely his own and did not represent the consensus of the Committee.

Dr. Budnitz reported he was scheduled to observe inspection activities at the Independent Spent Fuel Storage Installation (ISFSI) during the afternoon of the previous day, June 22, 2021. However, Dr. Budnitz reported his flight to San Luis Obispo from San Francisco was delayed and he was unable to observe the outside experts and DCPD personnel working to perform an inspection of eight selected spent nuclear fuel storage casks, representative of several different variables, to determine whether there might be any possible compromise to either the integrity of their outer or inner components. Dr. Budnitz reported the selected casks included those fabricated using older as well as newer technology including different types of stainless steels as well as casks with differing heat loads and certain age-related factors. Casks were also selected that were loaded during the earliest loading campaigns. Dr. Budnitz reported that while he did not have the opportunity to observe the inspection activity he did tour the ISFSI with DCPD senior managers and was able to see the inspection equipment and he observed the ISFSI facilities were exceptionally clean and appeared very well organized and maintained. Dr. Budnitz stated the inspection activity should be completed within about one week and a preliminary report will be issued and then followed by a comprehensive report, both of which will be provided to the DCISC. Dr. Budnitz reported there are similar inspections being conducted throughout the nuclear industry which follow NRC and national codes which enable a comprehensive comparison of results through a nationwide database. He reported it is not expected at this time these inspections will reveal important compromises to the integrity of the casks but there may be modest compromises due to surface stress corrosion or issues with the concrete. He reported that protocols will be developed to assess the results and this activity is also being followed by the two NRC resident inspectors assigned to DCPD.

Ms. Sherry Lewis of the group San Luis Obispo Mothers for Peace was recognized. Ms. Lewis posed several questions to which Dr. Budnitz and the other Committee Members and the Technical Consultants responded. Dr. Budnitz stated that he did not know whether the cask which was identified during an inspection in 2014 by the Electric Power Research Institute (EPRI) as having experienced some etching was one of the eight casks selected for inspection of the three parameters he identified as chosen for the inspection, being the type of stainless steel, the thermal properties and the heat load of the fuel due to burnup, and time of storage in terms of the fuel and its radioactive decay. Dr. Budnitz confirmed that the inspection equipment has the

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magnetic and electrical capability to inspect and to photograph both the inner cannister as well as the outer cask. Dr. Lam remarked during his service with the NRC he was involved in and wrote the technical consensus for approval of the DCPD ISFSI and for the use of generic casks which were modified by the use of anchors for service in this area of an active earthquake zone but the mechanism of stress corrosion cracking was not litigated at that time. Dr. Budnitz stated during the time he served as the NRC's Director of the Office of Research a program was instituted that recommended the use of certain steels due to their resistance to stress corrosion cracking and at the time of approval of the DCPD ISFSI there was a very high assurance that stress corrosion cracking would not be a problem. Dr. Lam observed stress corrosion cracking is not a phenomenon that with inspection would threaten the facility or result in exceeding the off-site boundary dose limit.

Dr. Budnitz confirmed, in response to Ms. Lewis' query, the most recent inspections have not found any cracking that would provide any pathway for radionuclide transport but there are incipient surface signs of what could lead to cracking many years or decades hence and the objective of the inspection campaign is to determine if that is true and to assess whether the process is either very slow or arrested entirely. In response to Ms. Lewis question as to how DCPD might cope with a cask or several casks having cracked after decommissioning of the spent fuel pools Dr. Budnitz stated that for older fuel a spent fuel pool is not required and Dr. Peterson reported the transportation casks can be used to contain the fuel cannisters and the transportation casks do not require leak integrity credit as the transportation cask does not rely on the integrity of the cannister or the fuel and that was one of the reasons Dr. Peterson concluded it would be acceptable to decommissioning the spent fuel pools once the fuel has been off-loaded and to proceed with decommissioning. In response to Ms. Lewis statement that Mothers for Peace do not support transporting the casks offsite as it is too dangerous Dr. Peterson observed that concerning the hazards of transporting spent nuclear fuel, while not part of operational safety, there has never been an accident which has resulted in an injury to a person.

Dr. Budnitz stated even if compromises to the concrete or the metal surfaces are identified, in even the most pessimistic scenarios the phenomena are still surface phenomena and the general conclusion is that for any mechanism that could threaten the integrity of a cask or cannister there would be decades of warning and time to take action and the inspections he described were not undertaken because of the knowledge that cracking was taking place. He reported this is the first instance of this type of comprehensive inspection taking place and he stated his belief that it was the approximately 12-year time period from the time that the first casks stored at the ISFSI had been on that site that prompted the inspection. Dr. Lam opined the inspections may have been triggered by comments by Ms. Donna Gilmore, whom he described as a capable intervenor in connection with the San Onofre Nuclear Generating Station's spent fuel storage issues.

Dr. Lam remarked he has mixed feelings about the issue raised by Ms. Lewis in that the DCPD site boundary is seven miles from the ISFSI and in his approval of ISFSI he was persuaded that the casks would not fall, break, rupture, fail, or lack cooling capability during a seismic event, even if buried, so as to cause a release of radioactivity but Dr. Lam acknowledged

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that the approval was without consideration of stress corrosion cracking as a failure mechanism. Dr. Budnitz reported the first cask were fabricated using 304 stainless steel with later casks being fabricated using 316 stainless steel and the most recent casks were fabricated using 316L stainless steel due to increases in the understanding of corrosion resistance and the present inspection campaign is assessing casks fabricated from different stainless steels. Dr. Budnitz reported even the most pessimistic assumptions would take considerable time to evolve and there are examples in the industry of stainless steels that have been in use for 40-50 years.

Consultant McWhorter observed the present inspection activity is also motivated by the requirement that a license renewal be procured from the NRC for the ISFSI and as part of a new license for the ISFSI an aging management plan must be developed which must include inspection activity and prior to submission of an aging management plan to the NRC inspection techniques must be validated. He reported, in response to Ms. Lewis' query, that the present license for the ISFSI does not require an aging management plan. Dr. Budnitz confirmed that for use of a new cask for DCPD an initial license for the cask will be required from the NRC. Mr. McWhorter reported that with reference to the period when the spent fuel pools have been decommissioned the cask transfer facility at the ISFSI has the capability to provide the ability for inspection of a spent fuel storage canister if necessary.

Dr. Gene Nelson of CGNP was recognized. Dr. Nelson commented on what he described as basic physics of radiation decay. He stated the time horizon, depending on the burn-up, is between 300 and 500 years from when the nuclear fuel is used to when its decay will result in its to the level of a good grade of uranium ore which Dr. Nelson observed is a natural product. Dr. Nelson stated opponents of nuclear power often seek to allege that something that decays at a high rate continues to decay at a high rate forever and that is not true. If radioactive decay occurs at a high rate the radioactivity also disappears at a high rate as well.

B. Documents Provided to the Committee:

The Chair observed that a list of documents received by the DCISC since its last public meeting in February 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 Wardell to provide an expedited report, due to public meeting scheduling concerns, on the March 4, 17, 18 & 24, 2021, fact-finding visit with Dr. Budnitz conducted as a remotely. Mr. Wardell then reviewed the topics discussed with PG&E during the March 2021, visit as follows:

➤ Station Excellence Plan – Mr. Wardell reported there is an item on the agenda later at this public meeting concerning the Station Excellence Plan. He commented the plan is the highest level plan now in use to align the individual departmental plans and other plans and was

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developed as a result of the October 2020 Institute for Nuclear Power Operations (INPO) corporate evaluation. The Station Oversight Committee has been established to monitor the Station Excellence Plan and it is comprised of seven of the highest-level leaders at the station including Mr. James Welsh, PG&E Senior Vice President Generation and Chief Nuclear Officer (CNO). The Fact-Finding Team (FFT) reviewed Minutes of a Station Oversight Committee meeting and concluded the Station Excellence Plan was appropriate for its intended purposes and has the potential to provide improved focus on leadership's efforts to obtain and maintain excellence.

➤ Meet with Quality Verification Director – Mr. Wardell stated the FFT met with the Quality Verification Department's (QV) Director Mr. Ken Johnston who reports directly to the CNO. QV verifies quality by means of assessments, audits and observations of work and produces the Quality Performance Assessment Report (QPAR) which is issued twice each year and rates the station's various functions and a monthly Quality Digest which focuses on audits and assessments and escalated issues and **he provided two examples of findings, 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, and assess resolution of those issues.** Mr. Wardell reviewed the QPAR's current ratings which have an overall rating of White indicating stable performance. The FFT found QV is doing a good job of assessing quality at DCPD and bringing management's attention to issues that require resolution.

➤ Plant (Reactor) Protection System – Mr. Wardell reported the Plant Protection System is a system used to monitor various parameters of the Reactor Coolant System (RCS) and provides signals to the Solid-State Protection System, the Reactor Trip System and the Engineered Safety Features Actuation System which when activated mitigate any off-limit parameters to either prevent or mitigate an accident. Mr. Wardell stated the Plant Protection System uses four separate, independent protection channels that read and send signals to the other trip systems and two out of four or three out of four must agree before the reactor is tripped or other actions are taken. He reported the Plant Protection System was updated in 1990 and was part of the original RCS controls provided by Westinghouse. The FFT found the Plant Protection System health to be acceptable with no significant issues and with spare parts available. Mr. Wardell reported DCPD is a member of the Westinghouse Owners Group which meets occasionally to review any problems with Westinghouse systems and the Plant Protection System is subject to full cyber security and has no connection outside DCPD and the system is expected to continue to function reliably through 2025.

➤ Vibration Monitoring Program – Mr. Wardell reported the Vibration Monitoring System is one of three sub-systems of the Reliability Centered Maintenance Program together with the Lubrication Control and Infrared Thermography Systems. The goal of these systems is to preclude unanticipated equipment failures. Permanent vibration sensors are part of the reactor coolant pumps, the turbine generators and the main feedwater pumps and these provide readings

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at all times to control room personnel. Mr. Wardell reported 200-300 components are monitored for vibration on a monthly basis through the installation of portable vibration monitoring equipment. **Mr. Wardell reported 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.** The FFT found the Vibration Monitoring System to be satisfactorily implemented and very useful.

➤ Tornado Missile Licensing Update - Mr. Wardell stated all U.S. nuclear plants must be designed for prevention from damage by missiles generated by tornadoes. He reported DCPD is located in a low risk area for tornadoes but the Licensing Basis Verification Project which updated the Final Safety Analysis Report identified an issue where the air-cooled emergency diesel generator cooling fans were partially exposed to the possibility of impact generated by a missile or other object due to a tornado. A prompt operability assessment was performance which justified continued operation and a new tornado risk model was developed that resolved the issue.

➤ Winter Storm Response – Mr. Wardell remarked Pacific Ocean storm activity has the potential for generating large waves which bring kelp into the Intake Cove and potentially affect or block the intakes for the Auxiliary Saltwater System which is protected by traveling screens. In response DCPD uses ocean sensor buoy data and reduces power if necessary. DCPD also has the ability to cut and harvest kelp in the Intake Cove. Mr. Wardell reported DCPD is well prepared for storm activity although there were no major Pacific storms during the winter of 2020-2021.

➤ Fire Protection: NFPA 805 – Consultant Wardell reported DCPD has implemented the National Fire Protection Association's Standard 805 regulations which employ risk-based procedures. He reported the Fire Protection Program System health is Green³. Some paint was found on sprinkler heads but their performance was not affected and all NRC Maintenance Rule issues have been resolved so that the fire watches which had been required in the past several years are no longer needed and the issues with the fire doors are all resolved. The NRC Triennial Fire Protection Inspection found the Fire Protection Program to be in acceptable condition. DCPD has six firefighters and one supervisor assigned on each of three shifts and a new fire station which houses a new fire truck. Mr. Wardell stated the FFT found the Fire Protection Program to be healthy.

➤ Maintenance Department Update – Mr. Wardell reported the key performance indicator for the Maintenance Department is in Green health status as is the QPAR indication. He reported

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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the Maintenance Index is in Yellow health status but is improving. The FFT concluded the Maintenance Department performance is strong.

- Nuclear Fuel Performance - Mr. Wardell reported Unit 1 has experience no fuel defects since 1991 and Unit 2 fuel has been defect-free since 2011. Mr. Wardell reported DCPD fuel cycles will be slightly shortened to 17-18 months from 19-21 months at present and fuel enrichment has been lowered somewhat. He reported the fuel has been performing flawlessly with cores designed for the remaining life of the plant to 2025.
- Meet with NRC Resident Inspector - the FFT met with the NRC Senior Resident Inspector Mr. Don Krause to review issues of mutual interest. Mr. Wardell remarked Mr. Krause will be making a presentation later at this public meeting.
- Observe Nuclear Safety Oversight Committee Meeting - Mr. Wardell reported the FFT observed a meeting of the six executive-level nuclear industry peers who make up the DCPD Nuclear Safety Oversight Committee (NSOC) who are on site at DCPD three times each year for a four-day visit to conduct an in-depth review of plant operations. On the fourth day of each visit a report on the NSOC's finding is provided and in the past the DCISC has been invited to observe the exit meeting, the details of which are proprietary and confidential by agreement.

Following Mr. Wardell's report, Ms. Sherry Lewis of Mothers for Peace was recognized. In response to Ms. Lewis inquiry concerning fuel defects Mr. Wardell reported a fuel defect is typically a crack or other damage to a fuel rod which contain the ceramic-coated uranium fuel pellets and serves to keep solid or gaseous radioactive materials generated in the fission process out of the reactor coolant. Dr. Budnitz commented a pressurized water nuclear reactor located in China recently experienced problems with five fuel pins and some radioactivity was released into the plant's primary system⁴. Dr. Budnitz remarked that problems with five pins at once is worrisome as it may indicate a systematic problem but this event did not result in any onsite or offsite dose. Dr. Budnitz reported twenty years ago a U.S. nuclear plant might typically experience one fuel defect each year but since then manufacturing techniques have improved and today U.S. nuclear fuel operates almost defect free which he described as excellent performance.

Upon a motion made by Dr. Peterson, seconded by Dr. Budnitz, the March 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 31st Annual Report.

VIII ADJOURN MORNING MEETING

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 Chair adjourned the morning meeting of the DCISC at 12:25 P.M.

IX RECONVENE FOR AFTERNOON MEETING

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

STAFF-CONSULTANT REPORTS & RECEIVE, APPROVE, AND AUTHORIZE TRANSMITTAL OF FACT FINDING REPORTS TO PG&E (CONT'D.)

B The Chair requested Assistant Legal Counsel Rathie to report on administrative, regulatory and legal matters. [In the interest of keeping on schedule this agenda item was deferred from the morning presentations.]

Mr. Rathie reported administrative matters included setting up this public meeting in a Zoom/hybrid format and he expressed his appreciation to Mr. Bob Lloyd of AGP Video and the technicians facilitating the broadcast of today's public meeting. He reported Ms. Linda Seeley, who is a frequent attendee at the Committee's public meetings, has been appointed by the Diablo Canyon Decommissioning Engagement Panel to serve as the Panel's liaison to the DCISC. Mr. Rathie reported it appears the Governor's Executive Order which now allows public meetings of state bodies to be conducted entirely by use of remote technology will stay in effect at least until September 30, 2021.

Mr. Rathie observed concerning regulatory matters that the 2018 Nuclear Decommissioning Cost Triennial Proceeding (NDCTP) is now scheduled to be concluded by September 13, 2021, and a proposed decision in that matter may be expected to be circulated for comment on or around August 10, 2021. He reported that at the February 2020 public meeting the Members approved the text of a proposed Second Restatement of a charter for the Committee and then directed that it be provided to the CPUC Energy Division and brought to the attention of the Administrative Law Judge in the 2018 NDCTP for consideration. He reported this direction was promptly carried out following the February 2020 public meeting. Mr. Rathie reported the next appointment to the Committee is now with the CEC Chair Mr. David Hochschild and the two candidates under consideration to serve a three-year term on the DCISC from 2021-2024 are Dr. Lam and Dr. Michael Quinn.

Mr. Eric Greening was recognized. Mr. Greening stated an incomplete application by PG&E for a coastal development permit is now pending before San Luis Obispo County in connection with plant decommissioning. He reported one of the items on which the County has requested information is waste characterization. Mr. Greening stated he is concerned with waste handling issues including cask specifications and he inquired as to the Committee's role relative to the environmental review of plant decommissioning. He stated that the draft Environmental Impact Report (EIR) is expected to be issued in a few months and he wondered if the DCISC would engage in the EIR review process as a body or whether any of the members might participate as individuals and he stated his belief that such participation would be useful and appreciated by the public. Dr. Budnitz responded to Mr. Greening's comments by stating it is not

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known at this time whether the Committee's charter will be extended to the period following DCP's cessation of electrical generation and that decision likely lies with the CPUC as well as with the entities that appoint the Committee's members. Dr. Budnitz observed the Committee's remit is to conduct safety review and accordingly radioactive materials in the environment are within the Committee's purview but at this time the schedule and scope of any review in context of the matters raised by Mr. Greening is unknown.

The Members and Consultants then turned to rescheduling the October 2022 public meeting in order to avoid holding a public meeting during or close to the dates during the plant is scheduled to be in a refueling outage. The Members and Consultants then agreed to change the date previously selected for the October 2022 public meeting hold that meeting instead on Wednesday and Thursday, September 28-29, 2022. [This change is made in the earlier discussion of scheduling or activities.]

X COMMITTEE MEMBER COMMENTS

There were no comments from Members at this time.

XI PUBLIC COMMENTS AND COMMUNICATIONS

Dr. Lam 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 requested PG&E Director of Generation Business Planning Mr. Thomas Baldwin to introduce the first of the informational presentations for this public meeting. Mr. Baldwin introduced the Generation organization's Director of Risk and Compliance Mr. Russell Prentice to make that presentation concerning the NRC's assessment of plant performance. Mr. Baldwin reported Mr. Prentice was licensed as a Senior Reactor Operator and has been employed at DCP for more than ten years including as Maintenance and Instrumentation & Controls Manager. In his present assignment Mr. Prentice oversees the Generation organization's regulatory relations and risk programs including those for DCP. Mr. Prentice holds a Master's Degree in Mechanical Engineering from California Polytechnic State University at San Luis Obispo (Cal Poly).

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 License Amendment Requests, Cross-Cutting Aspects of Performance, and Other Significant Regulatory Issues/Requests.

Mr. Prentice stated his presentation would provide an overview of DCP's performance from a regulatory perspective and stated regulatory performance of a station is a reflection of its operational and safety performance as well. Mr. Prentice stated his report covered a period of

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approximately four months from March – June 2021 and would include approximately 2,000 hours of NRC inspection time. 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. One violation, rated Green or of very low safety significance was issued since the last public meeting of the DCISC:

- Non-Cited Violation (Green) – associated with sequencing of testing associated with the carbon dioxide fire suppression system used to extinguish fires in certain locations. Mr. Prentice stated the testing procedure was revised in 2010 to test the manual actuation of the valve prior to testing the solenoid, that is, the remote actuation of the valve. The testing procedure has now been changed. (No cross-cutting aspect⁵ assigned).

Mr. Prentice displayed the NRC Cross-Cutting Aspects summary of performance over a rolling four-month period which he stated utilizes a proactive approach to identifying trends in functional areas and he stated DCPD remains in Green status for all categories with only two cross-cutting aspects identified for H-1 (Resources) and H-12 (Avoid Complacency). No licensee event reports (LERs) were issued by PG&E since the last DCISC public meeting in February 2021. Mr. Prentice reported DCPD remains in the highest performance category, that is, in Green⁶ status for all 16 performance indicators:

- 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.

⁵ 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.

⁶ 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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- Alert & Notification System.
- Occupational Exposure Control Effectiveness.
- Radiological Effluent Occurrence.

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

- 2021 Triennial Fire Protection Inspection (2021-010, 03/11/2021).
- 2021 Cyber Security Inspection (2021-403,03/31/2021).
- 1st Quarter 2021 Integrated Inspection report (2021-001,05/07/2021).

Mr. Prentice reported no licensee amendment requests (LAR) were issued since the last public meeting of the DCISC in February 2021, and one LAR is currently pending.

In response to Dr. Budnitz' inquiry concerning the NRC's development of a new regulatory regime for advanced reactors under 10 CFR⁷ Part 53 Mr. Prentice replied he has not seen any resulting changes to the NRC's present reactor regulatory regime under 10 CFR Part 50 although the NRC is conducting an overall regulatory update including consideration of risk-informed approaches for its Reactor Oversight Process. In response to Consultant Wardell's inquiry Mr. Prentice stated DCPD is not initiating any licensing changes at this time under 10 CFR 50.69. In response to Dr. Budnitz' inquiry concerning regulations governing cyber security Mr. Prentice stated issues and events in the industry are monitored and cyber security controls at DCPD are robust but an awareness is required as to threats and challenges and to address them proactively. In response to Consultant McWhorter's question Mr. Prentice stated DCPD is cognizant of operating experience from the Colonial Pipeline, an oil pipeline system, cyber intrusion and has included that information in its vulnerability assessment process. Mr. Prentice reported the operating experience process used in the nuclear industry is employed to assess and review external as well as internal industry-related events.

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

Mr. Baldwin next introduced DCPD Decommissioning Environmental and Licensing Manager Mr. Philippe Soenen and stated Mr. Soenen holds a Bachelor's Degree in Mechanical Engineering from the University of California San Diego and has more than 19 years' experience in the nuclear industry having worked in a variety of licensing positions at PG&E including the Humboldt Bay Power Plant spent fuel storage installation and the relicensing process for DCPD.

Update on Emergency Preparedness During Decommissioning.

⁷ Code of Federal Regulations (CFR).

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Mr. Soenen reported in his discussion he would provide a general background on major transitions that will occur during decommissioning the power plant, an overview of emergency planning transitions, and a review of the development of the Post-shutdown Emergency Plan. He identified the major areas under the current Emergency Plan and identified what he described as a step-down transition which will occur at the time both reactors have stopped operating and when the fuel is offloaded for the final time from the reactor to the spent fuel pool. The next phase he identified occurs when some of the fuel is in the spent fuel pools and some is also in dry cask storage and he reported that the period of potential risk of a spent fuel zirconium fire is approximately 16 months following its placement in a spent fuel pool and accordingly operator action during that period is needed within ten hours. He reported this period constitute the first window for application of the Post-shutdown Emergency Plan. Following the period of the risk of fire the fuel will be transitioning from wet to dry storage and for this period the Permanently De-fueled Emergency Plan will require NRC approval. Once all fuel is removed from the spent fuel pools and in dry cask storage at the ISFSI the Post-shutdown De-fueled Emergency Plan will transition to the ISFSI Only Emergency Plan which will require NRC approval. Finally, he stated the ultimate transfer of the fuel offsite will occur after which the decommissioning of the ISFSI will take place.

Mr. Soenen reported the major emergency plan transitions he described are standardized in the nuclear industry and are based upon the reduction in radiological risk but changes require NRC approval and are adjusted to assess site-specific considerations through consultation with state and local agencies. In response to Mr. McWhorter's inquiry Mr. Soenen confirmed that the Federal Emergency Management Agency (FEMA) is also involved through FEMA's consultation with the NRC. PG&E is also consulting with San Luis Obispo County's Office of Emergency Services concerning the Post-shutdown Emergency Plan. Mr. Soenen reported that, with its participation as a proponent of the Joint Proposal⁸ which was approved by the CPUC and provides for the retirements of DCCP at the end of its current operating licenses, DCCP agreed to certain deviations from the NRC standards including continuing to provide funding for warning sirens and local emergency planning activities until termination of the 10 CFR Part 50 License for the power plant and he clarified that PG&E spending on personnel and the Emergency Response Organization (ERO) will be transitioned accordingly as allowed by the reduction in risk. Mr. Soenen reported that PG&E's filings in the 2018 NDCTP includes the costs associated with the transitions as well as for the emergency sirens and the County's emergency planning activities and a decision on the 2018 NDCTP is presently expected to be issued by the CPUC in December 2021.

⁸ 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 DCCP 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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Mr. Soenen reviewed some specifics of post-shutdown emergency planning including the use of the existing emergency response facilities through the first transition and for sixteen months following the final off-load of fuel from Unit 2 with no changes to the emergency classification levels. Mr. Soenen reported there will be changes in the proposed Post-shutdown Emergency Plan to ERO response times, to offsite equipment and to the emergency planning zones. In response to Consultant McWhorter's queries Mr. Soenen confirmed that in later stages of post-shutdown emergency planning there will be reductions in staffing of emergency response personnel but the transition from the reactor shut down to the initial transition of all fuel to the spent fuel pools represents the smallest transition of personnel and he confirmed in response to Mr. McWhorter's inquiry that during this period there is still a potential for a declaration of a general emergency to occur.

Mr. Soenen then described some of the changes planned in the post-shutdown emergency planning process including reduction in staffing for shift personnel and the onsite ERO, with personnel on shifts being reduced from 22 at present to 12 as proposed and reduced staffing at all emergency response facilities, while maintaining the ability for interfacing with the State and the County and their respective emergency response organizations to implement Radiological Emergency Plans. He reported DCPD would no longer be required to provide hardware for the Emergency Response Data System (ERDS) to interface that system with the NRC but will be required to maintain the capability for continuous communication with the NRC. There will be new standard industry commitments to conduct drills prior to the implementation of the Post-shutdown Emergency Plan to confirm the ERO's ability to implement the plan and the State of California and County of San Luis Obispo will participate with the NRC and FEMA to observe these drills.

Mr. Soenen reported PG&E has completed its consultation with the Governor's Office of Emergency Services, the County's Administrative Office and Office of Emergency Services and FEMA of a license amendment request that was provided to those parties for their review and comments and he reported that comments were received and resolved to the satisfaction of the commenters. He reported the Post-shutdown Emergency Plan was revised in response to comments received to retain ERO positions for the advisor to the County and the Dose Assessor in the Emergency Operations Facility. In response to Dr. Lam's inquiry Mr. Soenen stated DCPD conducts meetings with the County on a quarterly basis to review decommissioning activities. He reported there has been good collaboration with the County and DCPD intends for that to continue into the decommissioning of the powerplant. In response to Dr. Budnitz' query Mr. Soenen confirmed that the Emergency Preparedness (EP) organization at DCPD is included as part of the regular updates and representatives of the Emergency Planning organization attend the quarterly meetings with the County. In response to Consultant McWhorter's inquiry Mr. Soenen stated the goal is to submit the Post-shutdown Emergency Plan during 2021 and then to submit the Permanently De-fueled Emergency Plan, which he described as a more significant stepdown, and Mr. Soenen confirmed that much of the information he provided during his presentation was concerning the Post-shutdown Emergency Plan which is required for the immediate transition to decommissioning.

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Ms. Jane Swanson of Mothers for Peace was recognized. Ms. Swanson posed a question and two requests to the Committee and Mr. Soenen as follows: (1) how many dry storage casks will be required to contain all spent fuel after final closure in 2025 and are there 58 such casks at the ISFSI now, (2) for some examples of LARs related to decommissioning, and (3) for some examples of post-shutdown emergencies for which drills would be conducted. Mr. Soenen responded and he stated DCPD is pursuing the evaluation of a new dry cask storage system which would likely have a different storage capacity and configuration from the present system which provides for 32 fuel assemblies in each canister. Under the present system a total of 138 casks would be required to contain all the fuel produced by DCPD through 2025 and Mr. Soenen confirmed there are presently 58 casks stored at the ISFSI. In response to Dr. Lam's query as to the status of cask procurement efforts Mr. Soenen stated DCPD has received bids from qualified vendors and is evaluating those bids and expects now to have a proposal to management by the end of 2021 and to be in a position to execute a contract for new casks during the first quarter of 2022. Mr. Soenen gave as an example of a post-shutdown LAR the need to receive approval for permanently defueled technical specifications to remove activities no longer necessary after power generation operations cease. Emergency Plan changes will also require approval of a LAR by the NRC and he observed the 10 CFR 50.59 process still applies to planned modifications. In response to Ms. Swanson's inquiry Mr. Soenen confirmed a new cask design would require NRC approval either as a modification to the current site-specific license for dry cask storage through a LAR initiated by PG&E or if an option is selected under a general license issued to a vendor then the vendor would be responsible for obtaining NRC approval prior to use. In response to Ms. Swanson's third inquiry Mr. Soenen replied that a hypothesized scenario where the fuel in a spent fuel pool might become uncovered would result in the plant being required to demonstrate its emergency planning capacity for the capability to supply a make-up water inventory and for recovering and maintaining fuel integrity. Dr. Budnitz observed and Mr. Soenen agreed that transporting the fuel from the spent fuel pools to the ISFSI also presents scenarios which will continue to be required to be addressed in emergency planning. In response to Mr. McWhorter's question about use of a general license for new storage casks Mr. Soenen stated the general license would require modification for DCPD's site specific requirements and this responsibility would be undertaken by the vendor.

Mr. David Weisman of the Alliance for Nuclear Responsibility was recognized. Mr. Weisman inquired relative to the request for proposals for new casks whether it was a requirement that the new casks be adapted to use the existing transporter or would the vendor be permitted to employ a new tractor/transporter. Mr. Soenen replied that the request for proposals requires that the selected vendor supply all required equipment but prospective vendors are permitted to propose designs which would use the existing equipment including the transporter but they were not required to do so. In response to Dr. Lam's comment Mr. Soenen confirmed the regulatory review of the equipment, including for a new transporter, would be part of the process and would be conducted under the 10 CFR 72.48 process for evaluation of change to the licensing basis.

The Chair thanked Mr. Soenen for a very informative presentation and a short break followed Mr. Soenen's presentation.

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

The Chair requested Consultant McWhorter to report on the April 27-28, 2021, fact-finding visit with Dr. Lam which was conducted remotely. He reviewed the topics discussed with PG&E during the April 27-28, 2021, as follows:

➤ Radiation Monitoring System – Consultant McWhorter reported the DCISC review of the Radiation Monitoring System was a routine review. The system consists of 101 channels of communication, a combination of analog and digital instrumentation from four different manufacturers and dates from the 1970s to the 1990s. The Radiation Monitoring System is used to measure radioactivity and is categorized as a Tier 2 system which category does not require formal health reporting. Mr. McWhorter reported the system is in White health status and rated per the NRC Maintenance Rule as (a)(1), i.e., as needing improvement due principally to reliability concerns related to its diversity and age. Corrective actions are in place and being monitored for effectiveness and the overall trend of failure has been downward over the past three years. Mr. McWhorter reported the system has experienced a number of one-off failures which place it in (a)(1) status under the Maintenance Rule but he stated this is somewhat contrary to the intent of the Maintenance Rule which is to prevent failure due to maintenance and one-off failure is not necessarily maintenance related. In response to Dr. Budnitz' question Mr. McWhorter reported operating experience has shown that, in general, other nuclear power plants have experienced issues with radiation monitoring systems but there are differences between plants. Prior to adoption of the Joint Proposal DCPD was intending to completely replace the Radiation Monitoring System but has now adopted a program of continuing updates and Mr. McWhorter stated with the redundancy in the system, the present availability of spare parts and DCPD's continuing efforts to address reliability issues the DCISC FFT did not find the system compromised and found the Radiation Monitoring System to be in acceptable health.

➤ Meet with DCPD Officer – Dr Lam met with DCPD Site Vice President Ms. Paula Gerfen. Dr. Lam reported inquiries during these meetings are frequently twofold including, on the part of the PG&E representative, as to whether DCPD has provided adequate support to the DCISC and, on Dr. Lam's part, what are the top priorities of the plant's most senior leadership. Dr. Lam stated these interactions are most beneficial.

➤ Auxiliary Building Ventilation System – Mr. McWhorter stated the Auxiliary Building Ventilation System review was in follow-up to a review conducted in May 2020. The system is in Maintenance Rule (a)(1) status due to a significant number of functional failures including of the system dampers in 2018 and two position indicator failures in 2020. Mr. McWhorter reported corrective actions have been completed and the system is expected to return to Maintenance Rule (a)(2) status by mid-2021. He reported both charcoal filter banks received complete media replacement in 2020 which should sustain the system until cessation of operations in 2025. The FFT team found, with the continuance of monitoring by DCPD, the Auxiliary Building Ventilation System to be in acceptable health.

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- Meet with NRC Senior Resident Inspector – Mr. McWhorter stated the DCISC representatives met with the NRC Senior Resident Inspector for DCPD Mr. Don Krause to review performance during the twenty-second refueling outage for Unit 2 (2R22), recent NRC inspection results and concerns, and the plant's continuing response to the COVID-19 pandemic.
- Human Performance Update – Consultant McWhorter reported this review by the DCISC representatives was conducted at a high level and included review of Station Level Events (SLEs) and Department Level Events (DLEs). He reported there has been an increase in SLEs with three occurring in 2018, after eight prior years with none, no SLEs in 2020 and one SLE so far in 2021. Mr. McWhorter stated the corrective actions taken by the station appear to be effective and are mostly centered on the Operations Department. He reported there was a significant increase in DLEs during the twenty-second refueling outage for Unit 1 (1R22) but a significant improvement during 2R22. The FFT also review organizational learning opportunities which are trended by department and reviewed by the Performance Improvement Group across departments and also by the Quality Verification organization. Mr. McWhorter reported several trends were identified in organizational learning but the plant appears to be effective in tracking human performance and taking appropriate corrective action **but the DCISC should continue review the effectiveness of human performance monitoring in early 2022.**
- Maintenance Rule Program – Mr. McWhorter remarked this was the DCISC's first general review of the Maintenance Rule Program which was implemented about twenty-five years ago by the NRC to screen systems, structures and components for risk and provide a risk-based monitoring criteria for each and to identify and monitor maintenance-preventable functional failures. He reported the goal of the Maintenance Rule Program is to prove maintenance is effective by setting goals and if those goals are met a system is rated in (a)(2) status under the Maintenance Rule with normal monitoring in place. If the goals are not met the system is rated in (a)(1) status with corrective actions required and effectiveness monitoring in place. A system, structure or component will not return to (a)(2) status until actions taken are determined to have been effective. Concerning Maintenance Rule functional failure Mr. McWhorter observed some failure is related to design and some to external factors. The FFT reviewed procedures and found the Maintenance Rule Program to be effectively implemented and Mr. McWhorter displayed a graph of the history of maintenance-preventable functional failure which demonstrates the average to be three such failures each quarter. He reported during 2018 there were 31 systems in (a)(1) status and in 2020 that number was reduced to 23 which he described as indicative of an effective program showing a good trend. In response to Consultant Wardell's inquiry Mr. McWhorter reported the Maintenance Rule Program is assessed every two years by self-assessment and the conclusion of the 2020 self-assessment was the program was trending in the right direction and having 23 systems in (a)(1) status was not an unusually high number in the industry. Dr. Budnitz observed the program metrics would be more meaningful if the program counted components rather than systems. Mr. McWhorter agreed and commented the program metrics are very much dependent upon how the system was analyzed during its initial assessment for inclusion in the Maintenance Rule and he gave the current placement of the Radiation Monitoring System in (a)(1) status due to diverse component failure mechanisms as an

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example. Mr. McWhorter confirmed Consultant Wardell's observation that placement of a system in (a)(1) status does not mean the system is inoperable and he offered the example of the Auxiliary Building Ventilation System as an example of a system in (a)(1) status and subject to monitoring under the Maintenance Rule for a set period of time but which remains fully operable. Dr. Budnitz observed and Mr. McWhorter agreed that the Maintenance Rule Program does not encompass design failures as they are not maintenance-preventable and he gave the example of fuel failure which can be caused by design issues or by the introduction of foreign material which could be prevented by maintenance. Mr. McWhorter reported the programmatic documents for the Maintenance Rule Program at DCPD include a list of criteria as to what constitutes a maintenance-preventable functional failure.

➤ Boric Acid Corrosion Control Program – Consultant McWhorter reported this was a routine programmatic review to assess the Boric Acid Corrosion Control Program which inspects and monitors for repair water leaks containing boric acid that can cause corrosion of carbon steel components. He remarked the leaks are generally indicated by white deposits and are usually found at threaded connections that are near a joint or a valve. Components fabricated with stainless steel or other corrosion resistant materials are not susceptible to corrosion from boric acid. The program is driven by industry guidelines and involves identification, monitoring and tracking leaks for repair. The Boric Acid Corrosion Control Program is presently in Green status and the program is being actively implemented and managed.

➤ Unit 2 Main Generator Issues and Root Cause Evaluation Update - Consultant McWhorter stated DCPD will provide a report on this topic later during this public meeting. He provided a history of the outages experienced by Unit 2 for the period from the fall 2019 to April 2021 and stated in his presentation he would focus on the events since the meeting of the DCISC in February 2021. On February 3, 2021, following testing and the placement of weights on the Unit 2 Main Generator to address vibration issues and restart in January 2021, the decision was made to again shutdown Unit 2 due to vibration experienced at higher power levels as well as due to a slight increase in hydrogen consumption. Inspection led to the decision to do extensive repair and conduct major modifications to the generator that required pulling the rotor out of the generator and accordingly to extend forced outage 2H22 into refueling outage 2R22. Mr. McWhorter reviewed the work conducted:

- New stator component cooling water (SCCW) end manifolds built and installed. Mr. McWhorter reported the manifolds at each end of the generator, mainly on the exciter end, were the primary source of the hydrogen leaks.
- New internal vibration tests performed on individual components inside the generator.
- Additional structural supports and epoxy fill installed.
- Major internal fasteners retightened with the reason for the loose fasteners to be reviewed in the root cause evaluation (RCE).
- Internal vibration monitors installed.

Mr. McWhorter reported that following restart on April 17, 2021, operators noticed uneven stator temperature indications and analysis by the vendor determined that internal cooling hoses had

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been improperly installed and a six-day shutdown was required to swap out the internal cooling hoses. Mr. McWhorter displayed a photo of the many SCCW hoses inside the Unit 2 Main Generator and stated that of these two hoses were improperly installed by the vendor. **Unit 2 restarted on April 25, 2021, and has continued to operate since then. Mr. McWhorter reported the RCE is continuing and is expected to be completed in July 2021 and he recommended the DCISC review the RCE during future fact-finding and at a future public meeting.** The FFT team concluded DCPD was continuing to properly manage the Unit 2 forced outages and the vibration and hydrogen leaks and the Committee should continue to follow up on the RCE.

Dr. Lam commented that reports in the local media have alleged the problems with the Unit 2 Main Generator were the results of willful gross negligence by DCPD management. Mr. McWhorter commented that the RCE is still not complete and the causes of the problems are still an open question. He reported several DCISC fact-finding teams have concluded the actions taken by DCPD appear to have been appropriate from the aspect of safety with no evidence of poor management or decision-making by DCPD. Dr. Lam stated his assessment of the issues with the Unit 2 Main Generator was that they did not pose an issue of safety significance and this was based on his examination of the equipment location, the volume of the Turbine Building, the inventory of hydrogen, the area for dilution of hydrogen involved, and the orientation of any potential turbine missile if the equipment was damaged by hydrogen flaming or an explosion. Dr. Budnitz observed that if the RCE indicated the presence of a safety culture issue the DCISC would review that in that context.

➤ **Post-Shutdown Technical Specification License Amendment Request** – Mr. McWhorter stated Mr. Soenen reviewed this item during this presentation earlier in this public meeting as to the modifications which will be required to the post-shutdown technical specifications by license amendment requests (LARs) which process will be managed by the decommissioning team. He reported the first major licensing action will change the accidents that have to be considered in the technical specifications once the fuel is removed from the reactor. This has resulted in the first major licensing action which was the technical specification LAR submitted to the NRC on December 3, 2020, which is to become effective following certification of final fuel offload, with no fuel handling activities permitted for at least 45 days after shutdown, and completion of the fuel handler certification program. The key point of this LAR is to reduce the number of applicable design basis accidents and retain in the technical specifications those matters relative to spent fuel pool level, boron concentration, and fuel arrangement. Mr. McWhorter observed spent fuel pool cooling is not part of the current technical specification and need not be addressed in the LAR as allowing the spent fuel pools to boil if necessary is a part of heat removal and is addressed by the requirements to maintain spent fuel pool water levels. Mr. McWhorter reported staffing will be reduced to one shift manager with a fuel handling certificate and one operator for each unit and the General Design Criteria will be accordingly reduced as will requirements for the Quality Assurance and Fire Protection Programs.

Future LARS in decommissioning will address the Defueled Safety Analysis Report (DSAR) and changes to the Emergency Plan. **The FFT concluded DCPD's approach to submitting LAR**

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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.

➤ Low Temperature Overpressurization Protection (LTOP) System Event – Consultant McWhorter stated this was a follow up item from January 2021. The event concerned actuation of the LTOP System on October 29, 2020, when a reactor coolant pump started during solid-water operation and the Reactor Coolant System (RCS) expanded and caused the LTOP System to actuate for a brief period. Mr. McWhorter reported there was never a significant pressure spike and the root cause evaluation for this event has not been completed. The conclusion of the vendor's analysis was that water in the RCS expanded upon the pump starting up due to an uneven temperature distribution caused by the mass of higher temperature metal in the Steam Generators (SGs) which resulted in higher temperature water being swept into and expanding the volume of the RCS and actuating the LTOP System. Corrective actions taken were to limit differential temperatures between the RCS and the SGs and to address other conditions for future solid-water pump starts. Mr. McWhorter reported the FFT found DCP's actions were appropriate. In response to Dr. Budnitz' query concerning operating experience Mr. McWhorter stated other plants have recognized the need to have a narrow differential temperature requirement. Dr. Budnitz remarked that depending on the differences in operating experience of other plants this could indicate a lapse in evaluation by the DCP Operating Experience group and he stated this was an unusual situation which should be avoided although there was considerable margin regarding a core damage accident. Mr. McWhorter agreed and confirmed that industry events in this general area have differences and DCP had not often been in this situation as generally in the past when reactor coolant pumps start the SGs are cold.

➤ Spent Fuel Cask Procurement Update – Mr. McWhorter reported PG&E received proposals for new spent fuel casks in mid-2020 and has reviewed and identified qualified and responsive proposals, the results of which are proprietary. The next steps will be leadership review, negotiations, and execution of a contract with a vendor which is expected to occur early in 2022. Mr. McWhorter reported the execution of a contract must necessarily await issuance of a decision in the 2018 NDCTP. He reported the vendor is expected to provide casks with the ability to support spent fuel movement to dry storage within four years of shutdown, that is by 2029. Mr. McWhorter described this as a huge and challenging effort over a three-year period with a considerable amount of regulatory activity required, a considerable number of new casks to be produced which he estimated to be in the range of approximately 80 casks, a large amount of fuel to be moved, and a great deal of money at stake to be paid by the taxpayers. The FFT concluded the procurement efforts are making steady progress toward execution of a contract. Dr. Lam offered some reservations as to the schedule which he described as exceptionally ambitious and he commented that the Committee has not been briefed about any significant matters on the design or procurement of the casks.

➤ Observe Corrective Action Review Board (CARB) Meeting - The DCISC representatives observed the CARB's review of Corrective Action Program documents and concluded the meeting met its objectives.

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Mr. David Weisman of the Alliance for Nuclear Responsibility was recognized. Mr. Weisman inquired as to the source of the local media report which Dr. Lam mentioned in connection with the Unit 2 Main Generator issue. Mr. Weisman described the issues with the Unit 2 Main Generator stator as an example of the effect of the bathtub curve⁹ the potential for which the Alliance for Nuclear Responsibility previously brought to the DCISC's attention but was assured by the Committee at that time it was not going to be a consideration. He stated at that time, October 2019, when the repair project was underway the Committee was supportive of PG&E replacing the stator which would typically have a service life of 20 years and the Committee observed that doing so before the stator failed was indictive of PG&E not being concerned with the budget and that failure of the Unit 2 Main Generator could be catastrophic. Mr. Weisman stated the discussion did not include the volume of hydrogen, size of the room or its venting capacity which Dr. Lam had earlier described as *de minimis* considerations. However, when PG&E was in the middle of the project and requesting funds the Committee at that time saw a grave danger and threat and a need to get this work done. Mr. Weisman observed that a review of the project will demonstrate the project was beset with problems and that it was a mistake to dismiss concerns about the bathtub curve's effect. Mr. Weisman stated the Committee professed two different opinions as to the severity of the project, separated by six months in time which appeared to Mr. Weisman to be linked to PG&E's decisions. Dr. Lam stated that his past statements regarding *de minimis* safety implications were in context of what he described as the first principle, which is based upon a lethal dose of radiation to 50% of the population and concerning the stator replacement project for the Unit 2 Main Generator the thickness of the reactor vessel afforded the project and personnel protection from radioactive damage. Mr. Weisman replied that assessment of the stator replacement was always understood to be in context of non-radiological considerations and he remarked the Committee has consistently expressed a concern about the safety of DCPD personnel and it was in that context that he understood the Committee's assurances regarding safety.

Mr. John Geesman, Legal Counsel to the Alliance for Nuclear Responsibility was recognized. Mr. Geesman observed the Alliance for Nuclear Responsibility's remit is substantially broader than that of the DCISC and he observed Mr. McWhorter had described PG&E's response to the Unit 2 outages as appropriate and Drs. Lam and Budnitz have both affirmed the Committee's principal focus is on operational safety. Mr. Geesman stated from his client's perspective the question of prudent asset management is substantially broader than safety and he inquired whether what he described as laudatory remarks about PG&E's response extend beyond the subject of safety. Mr. McWhorter responded by stating that it was his opinion the manner in which DCPD responded to the problems experienced with the Unit 2 Main Generator

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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was appropriate given the conditions, what was observed at each stage of the project, and the actions taken. He stated that from what he has seen of the investigation and efforts to make the repairs he has no broader safety concern in those areas as they were properly identified and followed up on but Mr. McWhorter stated he is not passing judgment on how DCPD came to find itself in this situation. Dr. Lam stated he had no intention in the fact finding report to praise or reprimand DCPD or PG&E and his intention was that the report state the facts as he and Mr. McWhorter found them to be. Dr. Budnitz remarked given the circumstances, DCPD responded effectively and competently and those actions were worthy of praise. He observed that, to date, the question of whether the event will reveal broader safety culture concerns has not been answered and will need to await completion of the RCE which the Committee will review and this represents an important distinction concerning the safety implications of these events. Mr. McWhorter gave the example of DCPD's actions in addressing the incorrect installation of the two hoses in the generator's SCCW system and he observed concerning that issue the FFT concluded the actions taken by DCPD to identify and fix the problem were appropriate and gave no indication of concern for nuclear safety but the question of how the vendor manage to install those hoses incorrectly and what other safety concerns there might be remain open.

Following a motion by Dr. Peterson seconded by Dr. Budnitz the April 27-28, 2021 Fact Finding Report was accepted by the Committee.

Dr. Lam commented Mr. McWhorter and Mr. Wardell's fact-finding reports for April and May were prepared for fact findings conducted less than two months prior to this public meeting and these reports were expeditiously and efficiently written. He then requested Consultant Wardell to report on the May 18-19, 2021, fact-finding with Dr. Peterson which was conducted remotely. Mr. Wardell reviewed the topics discussed with PG&E during the May 18-19, 2021, as follows:

➤ **Reactivity Management Update** – Consultant Wardell observed reactivity is the potential of a nuclear core to increase or decrease its chain reaction rate and accordingly the reactor's power level and it is very important for nuclear safety to control reactivity which is affected by and can involve inserting or withdrawing control rods, the boron concentration in reactor make-up water, main turbine controls, and core unload and reload among other actions. The FFT reviewed reactivity management procedures and found them to be satisfactory with improvement noted. These procedures make the Operations Manager primarily responsible for reactivity management with oversight provided by the Reactivity Management Leadership Team. Mr. Wardell reported the Reactivity Management Program for both units is in Green health status and the FFT found the program to be effective.

➤ **Meet with NRC Senior Resident Inspector** - Mr. Wardell reported the DCISC representatives discussed with Mr. Krause the agenda for the fact finding, the Unit 2 Main Generator hydrogen leak and a condenser leak which occurred on Unit 2, the NRC's requalification of operators, the plant's COVID-19 response, spent fuel storage, the adequacy of DCPD's plans to ensure adequate staffing remains available, and a situation where chains were

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found installed on certain fire doors which held those doors open. Mr. Wardell reported the meetings with the NRC inspectors are beneficial for the DCISC and he believed the NRC resident inspectors also find them useful.

➤ Wildfire Risk – Mr. Wardell stated the FFT inquiry was with reference to the risk posed by external fires during high winds and as in previous years the DCISC representatives determined there was a very low risk of a wildfire affecting DCPD due to actions taken to clear vegetation and to implement the Vegetation Management Program as well as the robust nature and fire resistance of the plant's facilities and structures including the ISFSI and the spent fuel storage casks located at the ISFSI. Mr. Wardell reported the power transmission lines are vulnerable to loss of power due to wildfire damage but the plant has multiple electrical and emergency electrical power sources available including the emergency diesel generators.

➤ ISFSI Update – Mr. Wardell observed this topic had been well covered by Mr. McWhorter and Mr. Soenen's reports earlier in this public meeting. Mr. McWhorter stated he was surprised to see the license extension for the ISFSI will be for a 40-year period and may represent a recent change to go from 20- to 40-year extensions.

➤ COVID-19 Update - Consultant Wardell reported DCPD has taken an active role concerning precautions from COVID-19 with the recent vaccination of 900 DCPD employees and 400 other local PG&E employees. Employees have been effective in working from home but are now beginning to return to work at the site. **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.** Mr. Wardell reported both of the NRC resident inspectors now have PG&E computers which allow them to access needed data and information remotely. **Mr. Wardell reported the DCPD system engineers are resuming their regular activities and will be conducting periodic walkdowns of their systems and he recommended that the DCISC once again schedule during fact-finding accompanying system engineers on their walkdowns.** He reported the FFT concluded DCPD is managing the COVID-19 pandemic appropriately.

➤ Reactor Vessel Specimen Testing Program - Mr. Wardell stated this program is important because the reactor vessel steel is bombarded by a heavy fluence of neutrons which has a potential to cause the vessel to become brittle and susceptible to cracking due to low temperature pressurized thermal shock (PTS). He reported each reactor vessel contains metal specimen coupons which experience the same or a higher neutron field than the vessel and these coupons are periodically removed and tested to provide assurance that the vessel remains sufficiently strong to withstand PTS. He reported test results for both reactor vessels at DCPD indicate that the vessels are sufficiently strong to support the full 40 years of license operation through 2025. In response to Dr. Budnitz' observation Mr. Wardell confirmed that weld material is also susceptible to PTS and Mr. Wardell confirmed samples are provided and tested of vessel weld material.

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- Emergency Preparedness Virtual Capacities – Consultant Wardell reported DCPD is using Microsoft Teams remote technology to train and qualify Emergency Response Organization personnel and to meet with NRC and Nuclear Energy Institute personnel. He reported some emergency drills have been held virtually and the next scheduled drill is a five-day virtual drill to be held in conjunction with PG&E corporate offices in the San Francisco Bay area. Mr. Wardell reported the next evaluated exercise at DCPD will take place on September 15, 2021, and will employ both virtual and in-person activities and the DCISC plans to have Consultant McWhorter present as its representative to observe the exercise. Mr. Wardell stated the FFT concluded DCPD emergency preparedness has been appropriately implemented during the COVID-19 pandemic.
- Meeting with DCPD Site Vice President – Mr. Wardell and Dr. Peterson met with DCPD Site Vice President Ms. Paula Gerfen to discuss the fact-finding agenda and other items of mutual interest. Dr. Peterson reported this was a good meeting.
- Quality Verification (QV) Audits – Consultant Wardell stated the FFT met with QV to review QV audits which are performed periodically in accordance with procedures which the DCISC representatives reviewed and found to be satisfactory. The QV audits are required by NRC regulation and the QV Department is an independent department which reports directly to the Chief Nuclear Officer. Mr. Wardell reported that for 2021 QV audits have made the following findings concerning:
 - Fire Protection – errors in drawings;
 - Problems with calibration of measuring and test equipment;
 - Fire Protection procurement outside standard DCPD processes;
 - Chemistry records problems; and
 - San Ramon Technical Services activities.

He reported none of these findings were considered significant and all are being resolved. The FFT found the QV audits to be effective..

- Operator Concerns/Issues – Mr. Wardell observed although in the past there have been some union issues amongst DCPD's operators at this time there are no significant union issues and the Operations Department is appropriately staffed for safe operation through and beyond 2025. He reported that DCPD is no longer seeking to hire new operators and the last initial licensing class achieved a 100% pass rate. Mr. Wardell stated the Simulator Facility continues to perform effectively and clearance and tagging performance is now rated as in Green health status. Mr. Wardell reported the plant has an active placement process for personnel and the FFT found the Operations Department to be appropriately staffed and without significant issues.

Ms. Sherry Lewis of Mothers for Peace was recognized. In response to Ms. Lewis' inquiry as to the prior status of the clearance and tagging process Mr. Wardell reported the

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program was previously in White health status.

Ms. Jane Swanson of Mothers for Peace was recognized. In response to Ms. Swanson's inquiry as to whether the public will receive information on a new design and the inspection capabilities for the dry cask storage system Drs. Lam and Budnitz assured Ms. Swanson that this information will become part of the public record and will need to be assessed by the federal regulators either through a license amendment request or a new license and at that time all the technical details will be in the public domain. Dr. Budnitz explained that PG&E's assertion that the proposals and information it has received in response a request for proposals issued for a dry cask storage system must at this time remain proprietary is appropriate given that the proposers do not want details of their proposals shared with other proposers as they may be at this time also bidding on fuel storage facilities at other locations. Mr. McWhorter observed the proprietary designation is also appropriate for the purpose of avoiding litigation which would delay the process of implementing dry cask storage of spent nuclear fuel at DCP.

Mr. Eric Greening was recognized. Mr. Greening inquired whether information regarding the dry cask storage proposals referred to by Ms. Swanson would become public in time for it to be useful in the process now being conducted by the County of San Luis Obispo under the California Environmental Quality Act (CEQA) relative to characterization of the hazards in decommissioning and developing necessary mitigations. Dr. Budnitz responded that Mr. Soenen would be the most knowledgeable individual to respond to Mr. Greening's inquiry but at this time Mr. Soenen has indicated that it is simply not known when the information referred to by Mr. Greening and Ms. Swanson might be in the public domain.

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

Dr. Lam returned to the matter of Mr. Weisman's inquiry earlier in the day concerning the source for media information cited by Dr. Lam and reported the citation was to a November 10, 2020 news report by KCBX entitled "Plan and Unplanned Shutdown at Diablo Canyon Halts All Electricity Generation" by Ms. Greta Mart.

XIV ADJOURN AFTERNOON MEETING

Dr. Peterson observed the Committee Members, Consultants and Counsel need to remain cognizant of microphone discipline in order that a proper transcript and minutes of this meeting can be produced. Dr. Lam then observed the evening meeting of the Committee would be convened at 5:30 P.M. and he adjourned the afternoon meeting of the Committee at 4:50 P.M.

XVI RECONVENE FOR EVENING MEETING

Dr. Lam 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.

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XVII PUBLIC COMMENTS AND COMMUNICATIONS

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

Assistant Legal Counsel Rathie reported a public comment was received by email earlier this afternoon from Mr. Tom Marrè. Mr. Marrè enumerated the following ten issues for the Committee's consideration regarding PG&E and DCPD: (1) control rod clusters and electric circuit boards have failed and shorted-out for Unit 1; (2) a leak rust hole was found in the auxiliary cooling system for Unit 1; (3) liquid hydrogen has been found at Unit 2; (4) a leak persists for Unit 2; (5) unscheduled outage to fix and repair the Unit 2 leak have been required; (6) weld cracking has been found next to the hydrogen leak source; (7) vibration detected for Unit 2 which was run at 80%; (8) unable to fix leak so jury rigged counterweights; (9) fix at next outage; and (10) Unit 2 temporary shutdown. Mr. Marrè's message stated he believes Unit 2 is now at full power and he requested more detail on how the phantom vibration and the hydrogen leak were rectified and where new vibration monitoring was installed.

Mr. Rathie reported a message was received from Dr. Justin Cochran, Senior Nuclear Policy Advisor and Emergency Coordinator for the California Energy Commission. Dr. Cochran stated he was watching the public meeting via Zoom and he hoped to have the opportunity to attend the next public meeting of the DCISC in person.

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

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

Mr. Baldwin introduced DCPD Station Director Mr. Cary Harbor who has given many 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. Dr. Peterson remarked he has known Mr. Harbor for many years and he complimented Mr. Harbor on the great work he has been doing at DCPD.

Update on Unit 2 Main Generator Outages and Repairs.

Mr. Harbor stated in his first presentation this evening to the Committee he would provide an update on the status of the Unit 2 Main Generator. He reported Unit 2 is operating safely and producing electricity for PG&E's customers. The Main Generator is located on the non-nuclear side of the plant and the outages which took place recently were focused on restoring reliable energy generation. Mr. Harbor stated a generator such as the Unit 2 Main Generator might be found in any very large conventional power plant which is not fueled by nuclear power. He reported the issues with the Unit 2 Main Generator were not nuclear safety issues and had no impact on the health and safety of DCPD employees or the public as the plant

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went through the activities to address these issues which represented and required a significant amount of work. Mr. Harbor discussed and provided the following as a summary of the events involving the Unit 2 Main Generator:

- Unit 2 Main Generator has been online for approximately two months;
- Significant additional instrumentation with enhanced monitoring has been installed and the results are very positive;
- Root Cause Evaluation is in process, to identify any additional corrective actions and all immediate corrective actions are complete;
- PG&E leveraged industry experts and extensive vendor support to resolve unique technical challenges; and
- DCPD staff including the Operations, Maintenance and Chemistry organizations executed safe and error-free shutdown and restart of Unit 2 during multiple outages as well as clearing the generator and restoring it to service in each outage.

Mr. Harbor provided a timeline and remarked the Unit 2 Main Generator was approaching or slightly beyond its expected operational life when the decision was made in September 2019 to use the original manufacturer to rewind and rebuild the generator stator. An issue with a weld failure at the stator component cooling water header inlet water box with resulting hydrogen leakage was discovered in July 2020 and Unit 2 was shut down to address this issue. Mr. Harbor reported the generator is cooled by hydrogen gas inside the generator and the Stator Core Cooling Water (SCCW) System a closed loop water cooling system with an external heat exchanger which removes heat from the hydrogen and cools the stator components. Dr. Peterson observed and Mr. Harbor agreed the hydrogen gas has a higher pressure than the cooling water and accordingly if there is a hydrogen leak the water serves as an indicator of the leak but the leaking hydrogen does not substantively affect the capability of the water to continue to provide cooling and the capability exists to remove the very small volume of hydrogen from the SCCW System by venting it outside the plant and therefore this type of problem does not fundamentally challenge the ability of the SCCW System to provide cooling to the generator. Mr. Harbor displayed a photo showing the location of the fillet weld failure on the inlet water box to the SCCW System ring manifold where water comes in to the stator cooling water header. Dr. Peterson remarked and Mr. Harbor agreed that the location of the weld was unfortunate as it was located in an area of stress.

Mr. Harbor reported the weld was repaired and the plant ran until October 2020 when another hydrogen leak was detected and Unit 2 was shut down and the area inspected which revealed another small crack in a fillet weld in the SCCW System parallel ring. Mr. Harbor displayed a photo of the area where the crack occurred in the weld. He reported that working with the vendor DCPD brought in experts to assess the problem from the standpoints of structural integrity and vibration and at that time the support frames were capped and redesigned.

Mr. Harbor stated in December 2020 another weld failure occurred and caused a crack and DCPD undertook a finite element analysis of the water inlet box, which he described as an extremely technical modeling of the stresses at a location within a fixed amount of material

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which requires high powered computation to identify the areas of the highest level of stress in the material. He displayed a photo showing and indicating the location of the failed fillet weld and the location and degree of the stresses on the inlet box. He reported the vendor developed a completely different design to eliminate the stress point which involved replacing the water inlet box with a standard “T” connection which facilitates the smooth flow of water into the stator cooling water ring. Mr. Harbor and Dr. Peterson briefly discussed the inadvisability of putting welds in high stress locations.

Mr. Harbor reported DCPD was aware there was also a vibration element driving the failure mechanism and sophisticated modeling was performed of the entire Main Generator frame showing precisely how the frame moves with the rotation movement of the rotor inside the stator and with the magnetic forces produced through operation of the generator which showed the frame was contorting. Mr. Harbor reported this modeling allowed DCPD to assess the affect the frame was having on the entire system. The decision was made to install weights on the Unit 2 Main Generator to dampen the vibration and the modeling produced suggested locations for six counter-weights with three placed on each side of the generator to balance the generator and to move it away from its natural frequency or resonance which was producing a higher level of vibration. Mr. Harbor described this effort as akin to installing of weights on a wheel rim of an automobile to balance the wheel following installation of a new tire. He reported a great number of accelerometers were installed to measure and assess internal and external vibration which determined the counter-weighting produced a reduction in the generator’s vibration which resulted in a very good range of performance for the stator.

In response to Dr. Lam’s inquiry Mr. Harbor stated the failure mechanisms which affected the Unit 2 Main Generator were unexpected. Other nuclear power plants have replaced their entire stators through a process which removed the component entirely. Mr. Harbor reported the Arkansas Nuclear One power plant near Russellville, Arkansas, experienced an accident which resulted in a fatality for a worker when the stator which was being replaced was dropped due to the failure of a crane. Mr. Harbor remarked that the replacement of the stator internals by DCPD was intended to be in the nature of a like-for-like replacement and not an upgrade although it is now known that there were significant differences but there was no assurance that replacing the old stator with a completely new stator would not have produced issues similar to those DCPD has experienced. Dr. Budnitz observed there is some variability inherent in the manufacture of large components like a main generator. Dr. Peterson stated and Mr. Harbor agreed that vibration in complex mechanical systems is commonplace and is applicable to a wide variety of applications. Mr. Harbor provided an example of the addition of a sixth emergency diesel generator at DCPD where the exact same diesel generator was installed but upon startup was found to vibrate more than the other five emergency diesels which had been installed before the sixth. He remarked the base of the generator was altered and counterweights were required to achieve performance within specifications. In response to Dr. Lam’s query Mr. Harbor stated he was not aware of another nuclear power plant experiencing the same issues as DCPD but the Callaway Nuclear Generating Station in Missouri conducted a generator stator overhaul together with a rotor replacement and experienced significant issues which required the plant be shut down for approximately 130 days. In response to Dr. Lam’s question Mr. Harbor

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stated DCPD in total was shut down and restarted to deal with the issues with the stator replace over a period of approximately 160-170 days. Dr. Budnitz observed that in his opinion this was an unfortunate piece of bad luck as there is always variability involved in an equipment replacement of this magnitude.

Mr. Harbor stated Unit 2 was returned to power operations after the December 2020 shutdown and internal and external vibration was monitored which indicated the frame vibrations decreased significantly as did vibration on the stator cooling water header. However, at 80% power the plant began to experience higher vibration of conductors located inside the stator parallel ring which again produced a small hydrogen leak although it was well below the threshold at which DCPD would normally have taken action. Mr. Harbor observed that as Unit 2 was approaching a planned refueling outage (2R22) the decision was made to shut down Unit 2 and take it offline and commence the refueling outage early. During 2R22 a full replacement of the parallel rings was conducted during which a crack was identified at a location which Mr. Harbor displayed in a photo and 37 new braces and blocks were added as additional supports for the conductors and the parallel ring. Mr. Harbor displayed a photo of the old and new support blocks and the location and appearance of what he described as a hairline the crack on the parallel ring. He reported radiography was performed at various locations on the parallel ring which did not identify any other flaws or issues that could result in a crack. **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 with or without the coating material in place.** Mr. Harbor reported that when the repair was made and the additional supports installed on the parallel ring a bump test was then performed to assess the efficacy of the repair.

Mr. Harbor observed that the results achieved, using the operational characteristics of the old stator as the baseline, indicate vibrations were initially higher than the baseline returning to close to the baseline with the addition of the counterweights and with the repairs made to the parallel ring the Unit 2 Main Generator is now vibrating at a level below the baseline and monitoring is continuing on a 24/7 basis to ensure performance continues operating within normal operating parameters. Mr. Harbor stated the DCPD team together with the vendor and the experts engaged for the effort are continuing to work on a root cause evaluation for the Unit 2 Main Generator issues and retains reasonably confident that the solution is adequate. Dr. Budnitz stated the DCISC will await the completion of the root cause evaluation but the Committee generally concurs DCPD's response to the issues described by Mr. Harbor was competent and executed well given the initiating events. Dr. Lam observed his recent fact-finding with Consultant McWhorter found DCPD's response to be adequate but a member of the public has described the FFT's conclusion as laudatory and Dr. Lam stated his view that the DCISC is neutral with its Charter is focused on safety review. Dr. Budnitz stated characterizing the response as laudatory is in his view correct as to the manner in which these issues were handled by DCPD while he reserves his judgment as to the root cause. Mr. Harbor thanked the Committee and he observed the Unit 2 Main Generator challenges represented a tremendous technical effort as great or greater than any challenges experienced by the plant in the past.

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Mr. McWhorter remarked there was an additional outage required to address changing out incorrectly installed hoses in the SCCW System and Mr. Harbor reported this occurred after the modification was made to the parallel ring and while Unit 2 was being returned to power following 2R22. When the unit reached 30% power the temperature of one or two of the thermocouples was found to be deviating from the others and power ascension was stopped and analysis was undertaken which indicated this was likely due to a lack of cooling issue. The vendor indicated there could be an issue with the connection of the hoses and a flow test verified this assessment. Unit 2 was shut down and two hoses in the SCCW System were found to have been incorrectly connected and were then restored to their proper configuration without any damage to the stator.

Ms. Jane Swanson of Mothers for Peace was recognized. Ms. Swanson inquired whether the Committee or DCPD considered that a dangerous situation resulted from Unit 2 having to be repeatedly shut down and restarted. Dr. Budnitz responded and he stated that a slow, orderly shutdown occurred in each case and this type of shutdown is less concerning than if the reactor is scrammed. He observed the operators are well trained on how to shut down the reactor in a planned manner. Dr. Lam commented these shutdowns while not ideal were necessary. Consultant Wardell remarked that nuclear reactors are designed to startup and shutdown in a controlled, orderly fashion. Ms. Swanson inquired whether in hindsight it might have been better to acquire a new stator rather than rebuild the present stator which was approaching the end of its operational life. Dr. Lam stated he had made that same inquiry of PG&E and he commented that hindsight is always 20/20.

Dr. Gene Nelson of Californians for Green Nuclear Power was recognized. Dr. Nelson observed that the electricity generated by Unit 2 represents 5% of the electric power generated within California and he inquired as to the voltages and current involved and expressed his view that as a technically educated individual he was quite impressed with PG&E response. He inquired if the initial issue with vibration was identified by the existing instrumentation located on the Turbine Deck. Mr. Harbor replied that the Unit 2 Main Generator produces approximately 25,000 volts which is stepped-up by a transformer to 500,000 volts as it goes out to the electric grid. He reported each DCPD unit produced approximately 1,150 megawatts of output serving PG&E's service areas. Mr. Harbor reported the vibration monitoring instruments on the Turbine Deck monitor the rotating elements of the generator including the generator bearings which he reported always remained within acceptable parameters during the events he described. The vibration monitoring equipment installed for these events provided supplementary and more specific information needed to address the stator's problems.

Mr. John Geesman, representing the Alliance for Nuclear Responsibility, was recognized. Mr. Geesman inquired of Mr. Harbor, in context of the metaphor to an automobile, if one had purchased a car which experienced this level of trouble would it not be appropriate to stop expressing admiration for the mechanic and tell the car dealer this was not the car one intended to purchase and demand a new car or financial redress. Mr. Geesman observed California will soon be entering the summer months when the electric grid takes on a higher level of importance and he suggested a better strategy than congratulating oneself on repair strategies would be to

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focus on whether replacement of the stator was as good idea in the first place. Dr. Budnitz remarked Mr. Geesman's comments go to the root cause evaluation that is now underway and which the DCISC will review. Dr. Budnitz, in response to Mr. Geesman's inquiry as to Dr. Budnitz' reaction to the faulty hose installation issue, stated that the auto analogy was not valid as DCPD could not simply procure and install a new stator as it takes years to obtain a replacement stator and Unit 2 would be shut down and not producing electricity for a considerable period of time. Dr. Budnitz observed he would be very concerned if the stator problems represented a nuclear safety issue but in the Committee's judgment it did not. He stated that the DCISC will await completion of the root cause evaluation to see if a safety culture lapse might have been part of the underlying cause.

Dr. Nelson commented that with the current vibration of the Unit 2 Main Generator being below the baseline of its former performance with the additional of the supports and bracing this suggests the generator is now better tuned than it was prior to the repair and provides confidence that the plant can continue to produce electricity although rolling blackouts will likely continue in California due to other issues.

Mr. David Weisman of the Alliance for Nuclear Responsibility was recognized. Mr. Weisman questioned whether the DCISC's assessment of financial considerations not being within its remit is belied by the Committee's statements in October 2019 about the expected service life of a refurbished stator being beyond the plant's operational lifetime and Dr. Lam's comment at that time that this demonstrates that budget concerns are not a factor and Dr. Budnitz' remark that without a functioning stator power cannot be produced and millions of dollars are lost. Mr. Weisman observed although the Committee has stated financial considerations are not within its remit they do factor into its discussions and Dr. Budnitz confirmed that financial considerations do sometimes factor in the Committee's discussion. Mr. Weisman remarked that financial considerations were a factor in the creation of the DCISC by the CPUC.

Mr. Tom Marrè was recognized. Mr. Marrè questioned whether the speed at which DCPD addressed the issues with the Unit 2 Generator might be related to the presence at the February 2021 DCISC public meeting of a representative from the CPUC concerned with energy supply issues. Mr. Marrè observed PG&E and its holding company have both gone through bankruptcy within the last ten years and PG&E has admitted to responsibility for the deaths of 90 persons in connection with the San Bruno gas pipeline explosion and the wildfire in Paradise, California. Mr. Marrè stated he suspects PG&E's intentions and he commented the company needs to be watched. He stated his opinion that PG&E is only protecting its license from the CPUC.

Mr. Baldwin reported Mr. Harbor would make the next presentation to the Committee.

Presentation on the State of the Plant including Key Events, Outages, Highlights, Organizational Changes, COVID-19 Pandemic Response, and Other Station Activities since the DCISC's February 2021 Public Meeting.

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Mr. Harbor stated he would be presenting on the overall state of the plant since the DCISC's last meeting in February 2021. He reported Unit 1 and Unit 2 are currently safely operating at 100% power with a probabilistic risk assessment (PRA) of Green, meaning all items are within acceptable risk parameters and there are no threats to generation or safety. He reported all NRC Performance Indicators are Green. Mr. Harbor displayed graphs showing the daily load profiles for calendar years 2020-2021 for both units. He reported Unit 1 has been operating without a shutdown since its last refueling outage in November 2020 and is in the midst of what would be its fourth consecutive breaker-to-breaker run. Unit 1 generation has been curtailed for condenser cleaning and repair of condenser tube. Since coming out of its last outage related to the Main Generator Unit 2 has continued to operate well at 100% power with no issues.

Mr. Harbor reported Unit 2 completed 2R22 with industry leading radiological safety performance and completed routine maintenance and testing. The Main Generator continues to operate reliably.

Mr. Harbor stated DCPD is focused on the Tier 2 of the Employee Retention Program staff retention efforts and has completed the Tier 1 of that program and at this time no threats are imminent for retaining the knowledge and skills needed to operate the power plant. He reported a large class of senior reactor operator license candidates completed their NRC licensing exams and achieved a 100% pass rate and the operators are now assigned to Operations Department watches.

Mr. Harbor observed the COVID-19 pandemic has not impacted safe and reliable operation of DCPD and the plant will be reviewing and assessing efficiencies which may be achieved through continuance of some remote work by employees. He reported in response to Consultant Wardell's inquiry that certain employees will be recalled for work at the station in the next month or so. In response to Dr. Peterson's query about the California's Division of Occupational and Safety and Health (Cal-OSHA) regulations Mr. Harbor reported the plant's Human Resources Department continues to track and assist the station in complying with Cal-OSHA guidance.

Mr. Harbor reported the next refueling outage for Unit 1 is now scheduled for March 2022 and an NRC-evaluated emergency planning exercise and inspection is scheduled for September 15, 2021. He remarked that during the COVID-19 pandemic preparations and tabletop emergency planning drills and rehearsals were conducted remotely and the plant has very recently transitioned to in-facility onsite emergency planning exercises.

Dr. Gene Nelson of Californians for Green Nuclear Power (CGNP) was recognized. Dr. Nelson commented the daily load profile displayed by Mr. Harbor demonstrates that unlike the daily occurrence for solar and wind power generation facilities it is very unusual for DCPD to have no daily power output which capacity he described as core interest of CGNP.

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Ms. Sherry Lewis was recognized. Ms. Lewis remarked that batteries are being developed to store solar and wind power and someday there will be ways to store the terrible waste produced by nuclear power and time will help in this. Dr. Nelson responded that the claim that nuclear waste will be dangerous for extremely long periods of time is not supported by facts and a group in Canada has shown a comparison that most nuclear waste will decay to the level of a good grade of uranium ore within 300-500 years. He observed that the idea that batteries can fix the issue mentioned by Ms. Lewis is not supported by sound engineering analysis or financial considerations as it would require in excess of one trillion dollars to supply battery power to support California and the batteries would need to be replaced every seven to ten years. The Chair thanked Ms. Lewis and Dr. Nelson for their comments.

XIX ADJOURN EVENING MEETING

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

XX RECONVENE FOR MORNING MEETING

The June 24, 2021, public meeting of the Diablo Canyon Independent Safety Committee was called to order by its Chair, Dr. Peter Lam at 8:30 A.M. Dr. Lam welcomed those persons attending in person and by Zoom Webinar and watching the proceedings on live streaming video.

XXI COMMITTEE MEMBER COMMENTS

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

XXII 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.

Mr. Eric Greening was recognized. Mr. Greening stated that as it is presently uncertain whether the DCISC would participate in San Luis Obispo County's CEQA environmental scoping process or in review of the draft environmental reports related to decommissioning he remarked that none of the Committee Members or Technical Consultants should feel constrained to participate as individuals on the basis that they were not participating on behalf of the Committee. Mr. Greening expressed his opinion that the depth of knowledge by the Members and Consultants would be very helpful to this process. Dr. Budnitz responded and confirmed the Committee Members and Consultants were aware of their ability to individually participate in the process. He remarked that there is no bright line between environmental and safety issues and the Committee would not be constrained to comment on any issues within its purview in the

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review of operational safety. Dr. Lam remarked he has participated in numerous reviews and adjudications of environmental impact issues and the process is generally beneficial and he thanked Mr. Greening for his remarks. Consultant McWhorter observed that assuming the Committee's safety review mandate extends at least through the time the spent fuel is in the spent fuel pools the Committee will need to make many decisions in the future as to what documents it will review. He remarked there will be a plethora of documents concerning which the Committee will need to make a decision. Dr. Budnitz agreed and commented that it will be necessary for the Committee to do at least a scope review of many documents.

XXIII PRESENTATION TO THE COMMITTEE

The Chair introduced the NRC Senior Resident Inspector for DCPD Mr. Don Krause who has accepted the DCISC's invitation to the address some remarks to the Committee and the public. Dr. Lam observed Mr. Krause has an enormous responsibility for oversight and enforcement as the NRC resident inspectors act as the eyes and ears of the NRC and the federal government. He welcomed Mr. Krause to the meeting.

Remarks by the NRC Senior Resident Inspector for Diablo Canyon Power Plant.

Mr. Krause stated he would provide an overview of the NRC's role and the Resident Inspector Program and of the regulatory inspection process and the impact of the COVID-19 pandemic. Mr. Krause reviewed the mission of the NRC as to regulate the nation's civilian use of radioactive materials, to provide reasonable assurance of adequate protection of public health and safety, and to promote the common defense and security and to protect the environment. He remarked that the reference to "civilian" in the NRC's mission statement was an important aspect of its role. Mr. Krause reported the NRC is governed by and consists of five commissioners and at present four commissioners are serving in their appointed positions and another commissioner will reach the end of his term on the NRC this month. He reported the commissioners are appointed by the President and require Senate confirmation but there is a limit of three commissioners who can be from one political party. The NRC's Executive Director for Operations functions akin to the CEO of a corporation and is in charge of the NRC's day-to-day administrative business. Dr. Peterson observed the formation of the NRC retained the independent agency aspects of the former Atomic Energy Commission in that it is an agency independent from the executive branch of the federal government and he contrasted this aspect of the NRC's independence with the Environmental Protection Agency, an agency of the executive branch of government which is subject to a change in policy direction provided by whoever occupies the office of President. Dr. Peterson opined the independence of the NRC in this regard is conducive to supporting a strong safety culture. Mr. Krause observed when the roles and responsibilities of the NRC were split from the AEC the NRC accepted a regulatory role but the NRC does not promote the use of nuclear technology and the NRC reports to the Congress not the President. Dr. Lam agreed and remarked that while the President can appoint, remove and

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replace the NRC chair, that person although replaced as the chair continues to serve as a commissioner.

Dr. Budnitz reported when he served on the executive staff at the NRC the Resident Inspector Program was not yet in existence and the inspection activity was initiated from and by the NRC's regional offices which would dispatch inspectors to the various sites. The idea for having a resident inspector at each nuclear plant came about after the accident at the Three Mile Island Nuclear Generating Station in Pennsylvania. Dr. Budnitz observed the resident inspector system is one of the anchors of reactor regulation and provides a much more thorough understanding than was possible previously.

Mr. Krause reported the NRC divides the U.S. into four regions with Region IV having responsibility for plants west of the Mississippi River plus the Callaway Nuclear Generating Station in Missouri. Region IV currently includes twelve sites and eighteen operating nuclear units. He reported the NRC's Technical Training Center is located in Chattanooga, Tennessee and training for resident inspectors, including training on boiling water reactors as well as on pressurized water reactors, is conducted and includes classroom training and the use of simulators. Mr. Krause described the Technical Training Center as a very important aspect of the Resident Inspector Program and the NRC's basic overall training on fundamentals.

Mr. Krause reported that to qualify as a resident inspector a person must have a Bachelor's Degree in a technical discipline and pass a two-year formal qualification program including seven weeks at the Technical Training Center. He stated each inspector spends two to four weeks each year in refresher training and participates in quarterly and annual objectivity reviews. This includes participating in various inspection activities at other power plants and is intended to expose the inspectors to new and possibly better inspection methods. During these objectivity reviews the inspectors spend at least 40 days every year going about their normal duties but doing so at a different plant than that to which they are assigned including attending meetings, conducting inspections and reviewing corrective action programs. While one of the resident inspectors is on training the other resident remains on duty at their assigned plant and the offsite visits are not scheduled during times when the assigned power plant is scheduled to be undertaking major activities. Mr. Krause stated that the COVID-19 pandemic has prevented visits by other resident inspectors to DCPD so far during his tenure. He reported a resident inspector is allowed to spend no more than seven years at one facility which he described as another method of maintaining objectivity.

Mr. Krause stated he holds a Bachelor of Science Degree from Virginia Tech and a Master's of Nuclear Engineering from the University of Virginia and he previously served for five years as the resident inspector at the Monticello Nuclear Generating Plant in Minnesota. Mr. Krause reported he has more than 30 years of industrial experience having worked in operations, radiological protection, decommissioning and emergency preparedness organizations and prior to

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that he served in the U.S. Navy nuclear surface fleet program. The current NRC Resident Inspector for DCPD Ms. Ayesha Athar holds a Bachelor of Science Degree from University of Illinois and a Master's Degree in Nuclear Engineering from the University of Michigan. Prior to being assigned to DCPD Ms. Athar previously served as acting resident at the Grand Gulf, Comanche Peak, Clinton and Palo Verde nuclear generating stations. Prior to joining the Resident Inspector Program Ms. Athar served in the NRC as the performance lead for the Performance Indicator Program in the Office of Nuclear Reactor Regulation and the Division of Reactor Oversight.

Mr. Krause stated the role of the resident inspectors is regulation verification. They do this by conducting in-depth baseline inspection programs and have broad operational experience to assess the various plant programs. He stated the resident inspectors have multiple resources they can call upon for particular expertise, to assess trends and can obtain additional assistance as needed from Region IV or from NRC Headquarters. He stated the resident inspectors also provide communication and serve as the eyes and ears of the NRC by using their operational and detailed facility knowledge and their perspective to communicate with Region IV and with NRC Headquarters to provide an independent assessment and flow of information. The residents visit the regional offices at least twice each year although during the COVID-19 pandemic those visits were conducted remotely.

Mr. Krause described the baseline inspection activities as keyed to a cross-section of the licensee's activities including maintenance, surveillances, any corrective action issues and the Corrective Action Program. The residents tour the plant and assess its general condition and have unlimited access to any areas within the facility while following plant procedures to maintain industrial and radiological safety awareness. In response to Dr. Peterson's query Mr. Krause stated the required inspections are posted on the NRC's website and are the same for every nuclear power plant and these inspection activities are divided quarterly. In response to Dr. Budnitz comment Mr. Krause confirmed every resident inspector is required to have security clearance and the inspectors are authorized to review all security documents and typically review various security matters on a daily basis and security inspections are conducted by Region IV. He confirmed in response to Dr. Lam's query that while both resident inspectors have PG&E computers which allow them access to plant data they do not have unlimited access through those computers to all plant systems or software and there are a number of security protocols that the NRC, PG&E and DCPD have for their respective computer systems.

Mr. Krause reported that through the end of 2020 there were approximately 1,900 hours of direct NRC inspection activities at DCPD out of a total of 6,200 hours of total inspections. Inspections which originate from Region IV include those for emergency preparedness, fire programs, licensed operator examinations, in-service examinations, radiation safety, and security. Mr. Krause confirmed Dr. Peterson's understanding that certain plants that experience more issues than others receive a greater number of inspection and he stated the inspection

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activity is essentially the same whether a plant has one or more operating reactors. He stated all inspection reports are publicly available and findings are evaluated for safety, risk significance, periodic performance indicators and assessments, as well as for enforcement purposes. Performance areas are divided amongst reactor safety, radiological safety and security safeguards and seven cornerstones have been established in the Reactor Oversight Program. The NRC also conducts supplemental inspections and event responses and generic safety inspections which feed either into the enforcement or the assessment process of the Reactor Oversight Program. Different colors are used to indicate performance on the cornerstones with Green indicating nominal risk and deviation from expected performance, White indicating an increased regulatory response with cornerstones minimally met, Yellow indicates a required regulatory response with cornerstone objectives that have a significant reduction in safety margin, and Red which is extensive regulatory response required and an unacceptable loss of cornerstone safety margin. Each level other than Green triggers increased inspection and baseline inspection requirements. Mr. Krause described the five response columns used to assess licensee operation on the NRC Action Matrix and stated with each there is an increasing safety significance and requirements for dialogue with different levels of the NRC and increased regulatory actions.

Mr. Krause observed the COVID-19 pandemic has required changes to the resident inspectors' activities but typically the NRC inspectors were onsite four to five days each week, including Saturdays and Sundays, and remained available to respond 24/7. He reported as many of DCP's plant personnel worked remotely the number of activities at the station was reduced. The resident inspectors developed a protocol whereby one inspector would generally be onsite or in the office at the plant at any one time to create social distancing as required by COVID-19 protocols. During refueling or other outage activities generally both inspectors were onsite to provide oversight but they each maintained separation from the other. Mr. Krause observed some of the methods employed during the pandemic will likely be continued including but not limited to the use of video meetings and the resident's use of a PG&E computer to access plant data. **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.** Dr. Peterson observed PG&E was one of the nuclear utilities that early on recognized the benefits of transparency with the NRC and he observed the adversarial attitude adopted by some nuclear operators was enormously counterproductive. Dr. Peterson observed a culture of open transparency with the regulator is conducive and fundamental to safety culture and is enabled by the NRC as an independent executive agency. In response to Consultant McWhorter's inquiry Mr. Krause stated he found DCP to be very transparent in its relationship with the resident inspection team and the communication between the plant and the inspection team is good. He stated his biggest challenger so far has been getting accustomed to knowing where to look for certain things and plant personnel have been helpful in this regard.

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Mr. Krause remarked that due to the COVID-19 pandemic the inspection team has not been able to visit Region IV in person and the inspection activity by and interface with Region IV has principally been conducted remotely with the resident inspectors in the plant to conduct the reviews. He stated some types of inspection activity can be conducted through access to and review of documents and that remains easily accomplished by Region IV. He mentioned that the use of cameras for still photos and video monitoring also provide access to information from the field and he remarked a camera can sometimes be used in proximity to high radiation environments. Mr. Krause stated that during the pandemic licensees were allowed in some select cases to delay activities such as for emergency planning or security force-on-force drills in order to reduce potential exposure of personnel to COVID-19. Dr. Peterson commented that it is his hypothesis that emergency response is improved if it is feasible to communicate remotely as more personnel are able to join from remote locations immediately providing instant access to expertise as opposed to having to travel to the site of the emergency and the internet affords this opportunity. Dr. Peterson noted the performance of the internet during the pandemic has been amazingly capable and stable and is actually improving and this gives rise to fundamentally rethinking about how emergencies are managed. Mr. Krause stated the NRC is evaluating putting new protocols in place concerning how telecommunications can fit together and with reference to remote work. He remarked concerning emergency preparedness each plant and the NRC will need to assess and develop and understanding of how to proceed in the future. **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.**

Assistant Legal Counsel Rathie reported he had received an inquiry from Mr. Greg Haas, District Representative for U.S. Representative Hon. Salud Carbajal, as to whether there were alternative engineering standards or practices for which might qualify for a waiver from the NRC in context of the plant approaching the end of its operational life. **Dr. Peterson directed that this question be investigated during a future fact-finding and a response be provided to Mr. Haas.**

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 the Director of Generation Training Mr. Justin Rogers to make that presentation. Mr. Baldwin reported Mr. Rogers has twenty years' experience in the nuclear industry including eleven years in the U.S. Navy as an electronics technician and has served as an instructor in the DCPD electrical maintenance training organization, earned a Senior Reactor Operator License and worked in the Operations Department and as Operations Training Manager. Mr. Rogers holds a Bachelor of Science Degree in Nuclear Engineering from Thomas Edison State University.

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Update on Efforts to Retain Qualified Staff Including those with Critical Skills (such as Licensed Operations, Senior Maintenance Technicians, etc.)

Mr. Rogers stated he would provide an update on progress in maintaining critical and highly qualified staffing at DCPD and he observed nuclear qualifications are specialized and often require years of training to acquire and maintain those qualifications.

Mr. Rogers stated the Joint Proposal Agreement which provided for the retirement of DCPD by 2025 included a provision for a 25% retention payment for each year for seven years through a two-tiered program offered to all station personnel which number approximately 1,200 at this time. This program was structured to allow individuals to leave employment at DCPD after four years under Tier 1. He reported Tier 1 saw a high retention rate with a 98% of the participants staying through the entire four-year period. Tier 1 has now completed and Mr. Rogers reported the enrollment in Tier 2 is currently approximately 93%. Tier 2 will complete at the end of 2023. He commented the plant is currently between the two retention periods with the Tier 2 retention period payment expected to commence in November 2021. During this period individuals can terminate employment without penalty of pay-back commitment. Mr. Rogers reported that during this period 79 employees have left DCPD with 50 of those persons choosing to retire and 16 having left PG&E employment. Mr. Rogers stated the Tier 1 incentive resulted in persons who might have departed earlier remaining at the plant and this facilitated the transfer of knowledge to other personnel and permitted further planning for hiring and future staffing needs. Mr. Rogers reported DCPD continues to track the attrition rate and the results and with the exception of retirements which were postponed for Tier 1 that rate is very similar to the attrition rate experience before the announcement that the plant would be closing in 2025.

Mr. Rogers reported DCPD hired its largest license class in 2019 in anticipation of the expected attrition and to ensure sufficient staffing levels through the end of operations. During 2021 the NRC issued four senior reactor operator and 16 reactor operator licenses to DCPD personnel. He stated the class was timed to allow those individuals to be assigned to shifts and gain experience prior to the overlap period between Tier 1 and Tier 2. Mr. Rogers stated that DCPD as a two-unit site has the most active senior reactor operator and reactor operator licenses of any two-unit plant in the U.S. and has almost the same number of operators as the Palo Verde Generating Station in Arizona which is a three-unit site. Mr. Rogers reported in December 2020 DCPD completed an initial non-licensed operator class with ten graduates all of whom have been placed on shifts and are expected to be fully qualified by September 2021. A second non-licensed operator class is scheduled to commence by the end of 2021 and Mr. Rogers reported there is no shortage of applicants both from within the local community and from other areas of the country. He stated that August 2021 will see radiation protection and chemistry technician classes commencing for four to five technicians which will likely be one of the final classes to be administered at DCPD.

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Mr. Rogers stated Generation leadership reviews hiring requests, staffing needs and assessments and staffing adequacy with each department director on a weekly basis. This review includes rotational opportunities for personnel in other parts of the Generation organization. In response to Consultant McWhorter's inquiry about a statement in the Quality Performance Assessment Report regarding a concern about management turnover Mr. Rogers replied that much of the turnover in management positions that is occurring is due to individuals taking new positions and he used himself as an example as in his current role he supervises the person in his former position and he provided another example of the retirement of a Maintenance manager with 30 years' experience for which an additional manager was assigned to fill the position and stated that accordingly individuals remain available to provide mentorship. He reported as positions are filled the plan continues to look at mitigating efforts to assure the group as a whole can maintain proficiency.

Mr. Rogers stated DCPD has partnered with the International Brotherhood of Electrical Workers (IBEW) Union in Letters of Agreement to provide for workforce flexibility during outages for decontamination specialists, electrical maintenance technicians, instrument and control technicians and administrative specialists. He stated this will allow DCPD to bring in workers and to hire expeditiously persons who have qualifications already in place whether from within or outside the local community and DCPD continues to explore opportunities to work with the IBEW.

Mr. Rogers reported on DCPD's retraining programs for which \$113 million is made available for the period 2021-2025 to provide for:

- Enhanced Education – including up to \$10,000 in tuition assistance per employee per year and he reported DCPD is working with Cal Poly to develop a master's program in business administration that is coordinated with outage timelines so as to permit an employee to take an advanced degree while remaining available during outage periods.
- Employee Retraining Certificates – the DCPD Human Resources organization is identifying job availability within PG&E prior to and after 2025 and creating a certificate program to support employees in applying for jobs within PG&E, for example, in areas of safety, compliance, risk management, and cyber security.
- IBEW Apprenticeships – to create advanced placement and transfer opportunities within PG&E for IBEW-rated personnel including for non-licensed operators. Mr. Rogers observed many of the skills acquired by a non-licensed nuclear operator are transferable to a hydrogeneration facility.
- Employee Support Program – consisting of programs and services to support career change by DCPD employees including career counselors, skilled development workshops, and

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resume and interview techniques and training.

In closing Mr. Rogers reported DCP's retention efforts are going well and went better than expected during the period 2016-2020. He reported the Joint Proposal has been successful and advanced hiring and monitoring by the leadership team has provided the ability for mitigation and intervention at an early stage as challenges are identified. The Members discussed with Mr. Rogers the concerns previously expressed by Committee members regarding recruiting and retaining personnel as the plant approaches closure and stated that generally those concerns have been resolved to the Committee's satisfaction. **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.** Dr. Budnitz reported fact findings conducted with one member and one technical consultant generally involve meeting with ten or more DCP personnel and during those meetings the DCISC representatives have informal conversations with employees about morale at the station and the DCISC representatives try to come to some judgment on morale. Dr. Budnitz stated that although he was initially pessimistic and morale can be a difficult aspect to measure, to date, in his experience there has not been an important affect on morale at the station and as outsiders the DCISC's judgment on this issue should provide a level of credible assurance to the public.

The Chair thanked Mr. Rogers for his report and a short break followed.

Mr. Baldwin introduced Senior Director, Generation Organizational Excellence, Mr. Matt Hayes to make the next presentation. Mr. Baldwin reported Mr. Hayes has been employed with PG&E since 2016 and started his career as the DCP Radiation Protection Manager and has also served as Director of Performance Improvement Organizational Effectiveness Training. Mr. Baldwin reported Mr. Hayes has experience working at four other nuclear power stations.

Update on Performance Improvement Programs

Mr. Hayes stated in his position he has oversight of the Generation Performance Improvement Group which includes the Generation training organization. He stated his organization reviews and assesses change management, safety culture and leadership development among other aspects of organizational performance. In response to Dr. Budnitz' comment Mr. Hayes confirmed that while his organization has responsibility for monitoring safety culture the Employee Concerns Program at DCP is a separate program and the Employee Concerns Program reports directly to the Chief Nuclear Officer.

Mr. Hayes described the DCP performance improvement model as consisting of performance monitoring and identification of challenges, concerns, and issues and documenting any gaps to performance in the plant's Corrective Action Program where analysis, identification and planning takes place for a solution with actions to implement the solutions and further

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monitoring to assess the results. Mr. Hayes identified and briefly discussed the elements of performance improvement including:

➤ Corrective Action Program (CAP) – for improving and maintaining a positive safety culture the CAP provides the opportunity for employees to identify and document issues using what are termed CAP Notifications which allow for the initiator to follow-up and monitor issues identified. DCPD uses the CAP to track, analyze the causes or drivers to performance gaps and to plan actions in response. Employees can participate in CAP processes they initiate and see the results and are encouraged to raise issues. Each notification is assigned an owner and causal analysis is performed depending upon the significance level. When a notification is closed the employee who initiated the notification receives an email and is asked to rate his or her satisfaction with the resolution and the results of these ratings are monitored by the DCPD leadership team to reopen the issue if necessary. Mr. Hayes reported through industry efforts statistics from the DCPD CAP can be compared with those from other nuclear power plants and this requires a common set of risk and significance level screenings. Mr. Hayes reported management retains discretion to elevate an issue's significance based upon its application to DCPD. In response to Dr. Peterson's inquiry Mr. Hayes stated a notification might be reopened if feedback was received from the initiating party that the concern was not correctly understood and accordingly was not addressed appropriately. He reported the Corrective Action Review Board (CARB), chaired by the Plant Manager, is made up of senior leadership and the Maintenance, Operations and Engineering Directors and the CARB reviews several metrics concerning the overall program health of the CAP. He confirmed Dr. Budnitz' observation that intervening events or receipt of new information may also require reopening of a CAP notification and a common cause analysis would be performed. Every weekday the Notification Review Team which includes experts from the Chemistry, Radiation Protection, Training, Engineering and Maintenance organizations reviews the notifications generated the previous day and each notification is immediately referred to the shift manager for an initial assessment of any impact on operations. The Notification Review Team assigns a significance level to the notification and a proposed due date for a resolution. Each day the senior leadership team reviews the previous day's actions of the Notification Review Team to identify any cognitive trends and to raise awareness of any safety or human performance events.

Mr. Hayes reviewed the significance levels which are assigned by the CARB based upon the risk to nuclear safety or a regulatory aspect and the responses, subject to management discretion, as follows:

- High – assigned a root cause evaluation
- Medium – assigned a cause evaluation
- Low – assigned a work group evaluation

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In response to Dr. Lam's inquiry as to outside oversight of the CAP processes Mr. Hayes reported the CAP is overseen by the Nuclear Safety Oversight Committee (NSOC) an outside peer review group, by the Institute of Nuclear Power Operations (INPO) an industry organization as part of the INPO's biannual performance evaluations and assessments, and also by the DCISC.

➤ Self-Assessment – Mr. Hayes reported 47 self-assessments were performed in 2021. He described self-assessment methods as structured for reviewing the activities and performance of an organization and as a way to identify performance gaps compared to internal and external standards. Informal self-assessments are also performed. Self-assessments are performed prior to every major NRC inspection.

➤ Benchmarking¹⁰ – both formal and informal benchmarking occurs dependent upon the level of formality and whether there is a charter approved for the activity by the CARB. During 2020 DCPD performed 31 formal benchmarking activities and the results are documented in the CAP. Mr. Hayes reported DCPD reaches out to INPO or the NSOC or to the Strategic Teaming and Resource Sharing (STARS) coalition of nuclear power plants of which DCPD is a member to receive information on which plants currently have the best practices or procedures in specific areas.

➤ Use of Incoming & Outgoing Operating Experience – Mr. Hayes stated during 2020 DCPD reviewed 697 evaluations of industry operating experience consisting of events, issues, and lesson learned from other stations to enhance DCPD safety and reliability. DCPD also shares experience, lessons learned and information with other plants through INPO and STARS. He reported INPO flags operating experience with significance tier levels for evaluation and in some cases INPO requires that a formal response be provided. In response to Dr. Lam's question Mr. Hayes replied DCPD reviews information from NRC licensee event reports regarding violations at other stations but this represents a quarter or less of the information received by the Operating Experience Program. Dr. Budnitz observed data from the 300 light water reactors operating worldwide outside the U.S. is compiled and made available through the World Association of Nuclear Power Operations (WANO) and data is also provided by the International Atomic Energy Agency (IAEA) and through INPO and the NRC and this data is reviewed. Mr. Hayes agreed and stated the Nuclear Energy Institute (NEI) also shares information as does the Electric Power Research Institute (EPRI). He reported DCPD is recognized as a leader in the industry and receives frequent requests from other plants seeking copies of its procedures and processes.

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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- Performance Monitoring and Trending – Mr. Hayes reported performance improvement coordinators are assigned responsibilities for various departments to review CAP data, make observations, review safety events and provide quality verification and safety culture findings and to identify cognitive trends. The performance improvement coordinators attend departmental morning meetings to provide information on events which may have occurred in other departments and to heighten awareness and provide information on identified or potential trends.
- Use of Human Performance Tools – Mr. Hayes stated the plant has human performance tools which are used as part of the Human Performance Program, these include robust pre-job briefings and pre-job checklists which provide identification of higher risk activities and employees are trained to employ a questioning attitude. Procedure use and adherence is stressed with the use of correct component verification and the two-minute rule and is documented in the plant's Site Standards Handbook which he described a quick reference to the correct procedures. In response to Consultant Wardell's inquiry Mr. Hayes stated that pre-job briefings are typically led by the foreman or a supervisor but also include discussion and identification of responsibilities for assignment of activities and for safety and the two-minute rule is used to ensure that nothing in the field has changed from the information received during the pre-job briefing.

In response to Dr. Peterson's question Mr. Hayes stated the human factor techniques employed at DCPD are now being employed outside of DCPD within the Generation organization and his organization now has oversight responsibilities for implementing procedures developed over a period of decades for the nuclear industry within PG&E's Electric Operations and Gas Operations organizations and a site standards handbook similar to those used at DCPD is being developed for those organizations. In response to Dr. Peterson's comment about the transition to using electronic procedures and the improvements in not just reducing human error but also in an enhanced ability to collect information that results from the use of electronic procedures including the ability to do improved cause evaluations Mr. Hayes agreed and he reported his organization has employed a business technology analyst to bring more automation to reporting and electronic procedures have been implemented this year for work packages in the Maintenance organization. Dr. Peterson observed he believes the DCISC would endorse the efforts and investments described by Mr. Hayes. While recognizing that the plant is scheduled to close in a few years, Dr. Peterson observed these efforts would be broadly beneficial to PG&E and represent a professional development opportunity and safety benefit for the DCPD workforce. Dr. Peterson remarked the COVID-19 pandemic has had an effect and impact on training and everyone who works at DCPD is now adept at using remote meeting technologies and he expressed his conviction that if a transition can be made to electronic procedures there will be great benefit from that initiative in the future.

In response to Dr. Lam's inquiry about the predictability, manageability and preventability of error Mr. Hayes stated this can be accomplished through the use of human

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performance tools and this gives Mr. Hayes a high degree of confidence that while all errors cannot be eliminated the number of activities completed and hours worked during the recent refueling outages which were completed with no significant injuries and no challenges to nuclear safety support his confidence in the use of human performance tools. Dr. Budnitz commented that while no person believes a goal of zero is always achievable it is valid as an aspiration goal while recognizing the fallibility inherent in human performance. Dr. Lam commented on the lack of predictability in human error analysis and the difficulty of achieving prevention at a 100% level. Mr. Hayes agreed and stated that an organization such as DCPD must strive for perfection while realizing that it may never be achieved and therefore it is the journey to the goal not the goal that is important and organizational culture and leadership play key roles concerning performance and the use of human performance tools is intended to mitigate and where possible eliminate challenges that lead to error.

Mr. Hayes reported in 2020 the CAP inventory decreased while a steady inventory of new notifications to the CAP continued as it did in 2019 and in 2018 and he stated the reason the CAP inventory is decreasing is because DCPD is getting more efficient in addressing challenges. He stated DCPD continues to look to simplify its processes and to use self-assessment, benchmarking, and human performance tools to enhance and to remain aware of the DCPD organization's performance and continues to review and use operating experience to learn from others and share DCPD's operating experience and to trend performance and ensure supervisors are in the field to engage with employees.

Mr. Hayes continued and made the next presentation to the DCISC.

Station Excellence Plan and Station Oversight Committee.

Mr. Hayes stated in 2020 an assessment of station performance against the Institute for Nuclear Power Operations' (INPO) Principles for Excellence in Corporate Performance found an area for enhancement in Generation regarding committee oversight. The plant performs an evaluation and assessment of this area every two years and every six years INPO conducts an evaluation for every utility that owns a nuclear asset. The self-assessment conducted by DCPD in April, prior to the INPO assessment in October 2020, identified an enhancement in that there was room for improvement in cross-functional review of corporate leadership's oversight concerning the review of topical action plans that are reviewed in various meeting of senior plant leadership. The Station Oversight Committee (SOC) was created to address this enhancement with the goal of sustaining exemplary performance by applying intrusive oversight that aligns behaviors, reinforces high standards, drives accountability, and ensures organizational alignment. Mr. Hayes explained the SOC is intended to allow and afford PG&E corporate leaders an opportunity, in addition to the role of DCPD senior leadership, to engage and review important plant initiatives and action plans and to challenge DCPD to improve performance.

Mr. Hayes described the scope of the SOC's oversight of station and department excellence plans as including monthly review, together with a quarterly performance meeting,

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review of station safety performance, and internal and external audit findings and the status of corporate and station initiatives. Initiatives to develop specific actions to align with industry practices are also brought to the SOC for review and to assign an owner and a due date. He stated the SOC allows corporate and station leaders share accountability for building trust and gaining alignment. **In response to Dr. Budnitz' request, Mr. Hayes agreed to provide the schedule for future SOC meetings so as to possibly coordinate the observation of a meeting by the DCISC during a future fact-finding visit.**

Mr. Hayes reported the Station Excellence Plan (SEP) is one input to the SOC meeting, it is intended to be a living document with SMART actions ([.e., specific, measurable, achievable, and timely] that drive improved performance. All actions plans include the designation of an owner and a due date and if the plan addresses a gap to performance it is put into a GDAR format [i.e., gap, driver to the gap, actions, and results]. The SEP focuses on initiatives and issues important to the station and includes a cross-functional aspect and Department Excellence Plans which Mr. Hayes reported provide greater visibility in this new forum on functional problem solving of department level issues.

In response to Consultant Wardell's observation that the Quality Performance Assessment Report(QPAR) and the Quality Digest reviewed by the DCISC during a recent fact finding rated Performance Improvement as being in Yellow health status Mr. Hayes reported the Yellow window has now changed to White and the Yellow status was the result of shortfalls identified in guidance criteria used in the CAP which were identified by benchmarking and self-assessment and challenges during 2020 in connection with some workgroup evaluations which failed to address tacit assumptions which the Quality Verification organization recognized as a possible cognitive trend. He reported a robust cause evaluation was conducted and the issue was closed out and Performance Improvement health is expected to return to Green by the third or fourth quarter of 2021. In response to Dr. Budnitz' inquiry Mr. Hayes reported DCPD benchmarked the SOC and Station Excellence Plan concept with other utilities and engaged corporate leaders from other utilities in the development process.

Dr. Gene Nelson of Californians for Green Nuclear Power was recognized. In response to Dr. Nelson's inquiry as to how DCPD interfaces with INPO, Mr. Hayes stated that INPO assigns a performance monitoring liaison to every U.S. nuclear power plant and site visits and meetings are conducted with a formal contact taking place each month. In addition to the performance monitoring lead, each department has a single INPO point of contact who may have responsibilities for that discipline at two or three power plants and the department leaders at DCPD engage with those individuals monthly. Mr. Hayes described this as part of the continuous monitoring that occurs in two-year cycles and approximately six months prior to a plant evaluation by INPO a team lead is selected by INPO and an engagement process is opened with the Plant Manager and Site Vice President to develop an evaluation assessment plan.

In response to the Chair's inquiry Assistant Legal Counsel Rathie confirmed that due to a present scheduling conflict the October 19-20, 2021, public meeting is not expected to take place at the Avila Lighthouse Suites.

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XXV ADJOURN MORNING MEETING

The Chair adjourned the morning meeting of the Committee at 11:35 A.M.

XXVI RECONVENE FOR AFTERNOON MEETING

The June 24, 2021, afternoon session of the Diablo Canyon Independent Safety Committee was called to order by its Chair, Dr. Peter Lam at 1:00 P.M.

XXVII COMMITTEE MEMBER COMMENTS

Dr. Lam requested any of the Members who wished to make remarks to do so at this time. There were no comments or remarks by Committee Members at this time.

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.

Dr. Gene Nelson of Californians for Green Nuclear Power was recognized. Dr. Nelson offered to email to any person so requesting the comments he made yesterday morning to the DCISC and he encouraged the Committee to consider the Sycamore Mineral Hot Springs meeting as a location for its October 2021 public meeting.

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

Dr. Lam requested Mr. Baldwin to introduce the next presentation. Mr. Baldwin introduced DCCP Outage Manager Mr. Mike Quitter and reported Mr. Quitter spent six years in the U.S. Navy before joining PG&E in 1986. Mr. Quitter holds licenses from the NRC as a Reactor Operator and as a Senior Reactor Operator and has held positions of responsibility in the Operations organization prior to assuming his present role as Refueling Outage Manager.

Performance During 22nd Refueling Outage for Unit 2 Including Key Activities, Main Generator Repairs and Modification, Performance Indicators, Results Achieved, Unexpected Equipment Issues, and Open Items.

Mr. Quitter stated the twenty-second refueling outage for Unit 2 (2R22) was an overall success by any measure and he reported he would discuss with the Committee outage key activities, performance indicators and the results of the inspection of the fuel. Refueling outage

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2R22 commenced on February 23 and concluded on April 17, 2021. He reviewed and briefly discussed with the Committee the key activities during 2R22 which included:

- Refueling the reactor.
- Reactor Coolant Pump seal replacement – all four Westinghouse low leakage reactor coolant pump seals were replaced during 2R22 and as Unit 1 had three such seals replaced during 1R22 this will be the last time reactor coolant pump seals will be replaced.
- Reactor Vessel Hot Leg¹¹ In-service Inspection – successful robotic inspection performed inside the reactor vessel including the hot leg welds and lines.
- Inspection of Main Turbines – Low Pressure Turbines A & B.
- Repairs to the Main Generator – discussed previously during this public meeting by Mr. Harbor.

Mr. Quitter stated that during 2R22 outage safety and defense-in-depth were maintained at all times to ensure operability of key safety functions. He reviewed the high risk and infrequently performed tests and evolutions performed during 2R22 including:

- Initial reactor coolant system drain to flange level for lowered reactor coolant inventory for reactor disassembly and reassembly.
- Refueling cavity drain to lowered reactor coolant inventory following core reload.
- Vital bus transfer and integrated safeguards testing.
- Initial criticality of the new reactor core.
- Performance of heavy lifts including the reactor vessel head and the upper internals over the reactor core.

In response to Dr. Peterson inquiry Mr. Quitter reported the set-up for the initial criticality evolution takes approximately 12-15 hours and involves getting the reactor system slowly diluted to the correct estimated critical condition. All control and shutdown rods are pulled out and the system is slowly diluted to criticality which takes about one hour. Mr. Quitter reported this evolution is a change which was begun three outages prior and is favored by the operators as it is easier to monitor than the process previously used.

Mr. Quitter reviewed the performance metrics for 2R22 as follows:

¹¹ For pressurized water reactors such as those operated by DCPD the reactor vessel is a cylindrical vessel with a hemispherical bottom head and a removable hemispherical top head. There is one inlet (or cold leg) nozzle and one outlet (or hot leg) nozzle for each reactor coolant system (RCS) loop. Each of DCPD's reactors have four RCS loops.

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<u>Performance Measure</u>	<u>Goal</u>	<u>Actual</u>
Serious Near Hit Events	0	0
Nuclear Safety Events	0	0
Site Clock Resets	0	1
Outage Duration (Days)	<57 days	52 days 3 hours
ALARA	<13.276	10.758
(As Low As Reasonably Achievable (person-rem).)		

Regarding ALARA performance Mr. Quitter stated the <13.276 person-rem goal was a secondary goal with <19 person-rem having been established as the initial outage goal for 2R22. He reported after the reactor is shut down and forced oxygenation has taken place during a refueling outage the Radiation Protection organization performs calculations to establish a revised new ALARA goal. He reported achieving 10.758 person-rem for 2R22 represents an outstanding achievement for DCPD and the best ever for Unit 2 and he stated only the Palo Verde Nuclear Generating Station in Arizona has bettered this performance, having achieved performance at around 9 person-rem.

Mr. Quitter reviewed and discussed other results achieved during 2R22 including Main Turbine Low Pressure B and C removal and inspections and Main Generator vibration issues investigated, analyzed and repaired with the unit running very smoothly at present within operational vibration limits and instrumentation installed to monitor vibration. Mr. Quitter reported line ownership of ALARA continues to be a strength and this drove the excellent performance achieved during 2R22. Consultant McWhorter observed and Mr. Quitter agreed that the turbine overhauls and Main Generator repairs were separate activities and involved separate components of the Main Generator and according any discussion earlier at this public meeting about the threat of missiles due to vibration of the Main Generator's stator would have nothing to do with the possibility of missiles being generated by the repair of the turbines as the turbines were overhauled separately from the Main Generator and had no major issues. Mr. Quitter further observed that the part of the Main Generator which was the subject of the extensive repair efforts both before and during 2R22 was the stator which is a non-moving part.

Mr. Quitter discussed the results of the fuel inspection and reported the core was removed to the Spent Fuel Pool and inspected using fast speed cameras. No fuel defects or concerns were identified in any of the 190 fuel elements.

Mr. Quitter reported DCPD brought in 780 temporary workers to assist in the 2R22 outage related work activities. COVID-19 impacts were mitigated by communicating COVID-19 prevention expectations prior to arrival of the temporary workers which expectations adhered to PG&E, local, state and Center for Disease Control recommendations. All incoming badged personnel were tested and badge issuance and access were tied to negative results. He reported daily in-processing capacity was limited in order to adhere to six-foot social distancing requirements. An enhanced disinfection plan was implemented and disinfection of areas was performed at least three times each day and thermal temperature check monitors were

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strategically located for in-processing activities and entry into the protected area. In response to Consultant McWhorter's questions Mr. Quitter stated isolated cases of COVID-19 were identified during 2R22 all of which originated from off the site. Contract tracing and isolation was employed and no one was allowed onsite without a negative test. He stated that to his knowledge there was no transmission of COVID-19 from person to person within the plant. In response to Dr. Lam's query Mr. Quitter stated he expects DCPD will soon begin to validate vaccination status for DCPD employees and those not vaccinated will need to wear a mask at all times while on the site. He commented he expects that social distancing protocols will be maintained for the foreseeable future.

In response to Dr. Budnitz' inquiry Mr. Quitter stated during a refueling outage typically approximately one-half of the temporary workforce is hired from within the local area with other personal with particular skill sets such as radiation protection technicians coming from outside the local area. In response to Consultant Wardell's inquiry Mr. Quitter stated that other than basic maintenance such as power factor testing on the plant's main transformers, the PG&E Transmission organization did not perform major work during 2R22. In response to Consultant Wardell's query Mr. Quitter stated the scope of the work which was the subject of ALARA was not altered during 2R22 and it is standard practice when developing a goal to build-in approximately 10% for scope growth during a refueling outage. Mr. Quitter confirmed in response to the Committee Members' inquiries that he has now assumed the position held previously by Mr. Matt Coward who has a new role in the larger PG&E organization.

Dr. Gene Nelson was recognized and conveyed to Mr. Quitter his view that 2R22 had been well done.

Assistant Legal Counsel Rathie reported an email was received from Dr. Justin Cochran, California Energy Commission Senior Nuclear Policy Advisor and Emergency Coordinator. Dr. Cochran reported he was watching the meeting on livestream video and reviewing the PowerPoint presentations and Dr. Cochran stated the Committee was doing an excellent job and he hopes to join the public meeting in October 2021 in person. At the direction of the Chair a response was sent to Dr. Cochran acknowledging and thanking him for his message.

Mr. Baldwin introduced DCPD Quality Verification (QV) Director Mr. Ken Johnson and reported Mr. Johnson began his career with the NRC, has served as a senior resident inspector at a number of sites including DCPD and has more than 25 years' experience in the nuclear industry including leadership roles at DCPD as the Operations Services Director, Nuclear Industry Relations, and now as Director of QV. Mr. Johnston held a Senior Reactor Operator License and he holds a Bachelor of Science Degree in Nuclear Engineering from the University of California at Berkeley.

AGENDA PACKET DRAFT – OCTOBER 1, 2021

Quality Verification's Perspective on Plant Performance, Top Issues, Quality Performance Assessment Report.

Mr. Johnston reported the QV team at DCPD performs audits and assessments of plant performance. These audits are compliance-based reviews of programs to assure the plant is implementing the requirements of the license from the NRC and also to assure the station is pursuing excellence in performance. He stated he would review the functional audit assessments and reported the organization maintains a low threshold for identifying issues. Mr. Johnston stated the QV team is independent from the line and production functions and as QV Director he reports directly to the Chief Nuclear Officer. The Quality Control Inspection and Supplier Quality Programs report directly to Mr. Johnston. He provided a summary of the triennial assessment of station performance as of May 2021 which he described as a particularly challenging period for the station due to the successful completion of a Unit 1 refueling outage (1R22) and the need to address the issues with the Unit 2 Main Generator which required the 2R22 refueling outage to commence early to allow for maintenance of the generator. This period also required the QV organization to assess the impacts on the workforce from the transition from Tier 1 to Tier 2 for the Employee Retention Program and Mr. Johnston stated that this transition while not as significant as expected has had an impact on the remaining workforce.

Mr. Johnston provided a color-coded summary of the various functional areas and stated Green represents industry leading performance, White represents performance that is consistently meeting expectation with some minor gaps, Yellow is satisfactory performance with gaps that need leadership attention to arrest performance shortfalls, and Red represents performance that is not meeting expectation or has chronic performance shortfalls. He used arrows in his discussion to represent the trajectory for the individual functional areas [— stable/▲ improving/▼ declining]. In response to Consultant Wardell's question Mr. Johnston reported the overall station color in the 2020 year end Quality Performance Assessment Report (QPAR) was White and stable. Mr. Wardell observed the rating in the 2020 QPAR for Maintenance was Green and for Performance Improvement it was Yellow and the summary provided by Mr. Johnston shows movement in those aspects. Mr. Johnston confirmed Consultant Wardell's observation and reported the various performance windows are assessed on a monthly basis. He then reviewed and summarized each of the functional areas as follows.

➤ Operations/Operational Focus - [Green —] Overall performance is considered excellent with no significant issues identified. Prompt and appropriate responses by the operating crews to emergent equipment challenges with the Unit 2 Main Generator and the need to take Unit 2 offline and set up for a refueling outage. Strong leadership engagement, good alignment between crews including the use of a weekly crew management review process to evaluate the performance of each operating crew and improving low-level event reviews. Improvement opportunities identified for procedure use. Minor opportunities identified in the audit and assessment process for procedure use and for improvement in protected equipment posting issues with no equipment challenges.

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➤ Maintenance – [Yellow —] Overall performance is adequate with improvement opportunities. Contract worker performance associated with the generator and the stator core cooling water hose misalignment issue resulting in an emergent shutdown. Some minor maintenance worker shortfalls in human performance tools use throughout the period contributed to events. Missed opportunity to review maintenance rework for lessons learned. Mr. Johnston reported the Maintenance Director has presented a comprehensive plan for improvement. Consultant McWhorter inquired about the comment in turn-over of leadership in Maintenance which was made in reference to organizational effectiveness and Mr. Johnston remarked that comment could have been included within either the organizational effectiveness or the maintenance functional areas but it represents an overall station issue not unique to the Maintenance organization. In response to Consultant McWhorter's inquiry Mr. Johnston stated he believes DCPD is overall effective in assessing future attrition and turn-over of its personnel and part of this effort is strategic for the long term while another part is tactical to address issues as they occur and he reported these efforts are taking place on a daily basis.

➤ Engineering/ Equipment Reliability – [White — Engineering/ ▲ Equipment Reliability] Overall performance is consistently meeting expectations. Mr. Johnston reported that previously Equipment Reliability was rated Yellow and Engineering leadership has improved station focus on improving equipment reliability. Engineering support of the resolution of the Unit 2 Main Generator issues and some issues with the Rod Control System and corrosion found under insulation. The Engineering Work Product Review Team was not being effectively used. The transition from Yellow to White reflects that the organization has developed a plan. Consultant McWhorter observed the Committee has reviewed the work on the Unit 2 Main Generator and while it found the work was appropriately performed the Committee was withholding its judgment as to why that event occurred. Mr. Johnston replied that QV has not reviewed the issue of why the issue with the Unit 2 Main Generator occurred and like the DCISC is awaiting completion of the root cause evaluation.

➤ Radiation Protection – [Green —] Overall performance is considered exemplary. Excellent organizational support managing radiation dose with industry lowest ever outage dose in 2R22. Improvements in responsiveness to Confined Space Program challenges.

➤ Chemistry – [Green —] Overall performance is considered excellent with continued focus on the INPO chemistry effectiveness index and on asset protection with Chemistry Effectiveness Indicator of 0.0 and 0.2 for the units respectively. Addressed a trend in low-level human performance issues. Mr. Johnston remarked it is relatively easy to maintain the chemistry indicators at zero when then plant is online at full power but it is challenging to do so when the units experience transients such as has been the case for Unit 2.

➤ Emergency Planning (EP) - [Green —] Overall performance is considered excellent. Drill and exercise performance is improving, however, with limited opportunities due to COVID-19 these remain below industry top quartile. Continued focus on Emergency Response Organization staffing and proficiency is necessary.

AGENDA PACKET DRAFT – OCTOBER 1, 2021

- Work Management - [White ▲] Overall performance is consistently meeting expectations. Adjusted to a significant challenge of moving the Unit 2 outage up by ten weeks. The plant was able to enter that refueling outage and exit it timely while accomplishing significant goals. Missed an opportunity to learn from a component cooling water maintenance window that significantly exceeded its target completion and resulted in an INPO Red window.
- Training - [Green —] Overall performance is considered excellent. Completed the largest initial license class in history with 100% pass rate on the NRC exam. Strong alignment between the line and training.
- Performance Improvement – [White —] Overall performance is consistently meeting expectations. Station has improved the thoroughness of the Corrective Action Program's products and has developed processes to improve the review of human performance errors. Room to improve in identifying the behaviors that lead to errors and Mr. Johnston reported a number of actions have been taken to drive that understanding.
- Organizational Effectiveness – [White —] Overall performance is consistently meeting expectations. Response to several significant challenges including COVID-19. Unit 2 refueling outage and the complexity of the Unit 2 Main Generator issues.

Mr. Johnston provided a summary of QV's activities including issuing a QPAR for the period December 2020 to May 2021 during which 5 audits, 5 assessments and 28 observations were conducted. Internal audits were performed for the Chemistry, Emergency Preparedness, Fire Protection, Special Processes, Applied Technology Services, Access Authorization and Fitness for Duty functions. These audits resulted in 8 findings, 21 deficiencies, 14 recommendations. The assessments performed resulted in 1 finding, 3 areas requiring management attention, 1 deficiency, and 3 recommendations. In response to Consultant Wardell's question Mr. Johnston reported that for the areas requiring management's attention there are currently no areas in escalation to the Station Director or Site Vice President level.

In concluding his presentation Mr. Johnston reported QV's activities have found overall plant performance remains strong and on a stable trajectory and the QV organization will continue to monitor and challenge the organization. In response to Dr. Budnitz' inquiry Mr. Johnston reported his organization consists of 22 persons including those assigned to the Quality Control and Supplier Quality Assurance functions and represents a cross-section of various disciplines and QV endeavors to select those persons who are identified as being future leaders at the station. Dr. Lam remarked 22 fulltime staff translates to more than 40,000 hours effort every year and he commented that significant resources are being devoted to Mr. Johnston's tasks. In response to Consultant Wardell's inquiry Mr. Johnston stated nuclear quality inspection is independent of the line organization and for non-nuclear activities QV may utilized personnel qualified in other organizations.

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Dr. Lam thanked Mr. Johnston for his presentation.

**XXX CONCLUDING REMARKS & DISCUSSION BY COMMITTEE MEMBERS
OF FUTURE DCISC ACTIVITIES**

Dr. Peterson observed that as this is the 99th public meeting of the DCISC the October 2021 public meeting will be the 100th meeting of this Committee. Dr. Peterson and the other Members addressed commemorating that event in some manner and suggested extending an invitation to the original founding member of the DCISC Dr. William E. Kastenberg and to ask Dr. Kastenberg to provide a retrospective on the founding of the Committee and any thoughts Dr. Kastenberg may have as to the Committee's future. Dr. Lam requested the Committee's Assistant Legal Counsel to review the propriety of issuing an invitation to Dr. Kastenberg.

Dr. Budnitz made a request that an item be included on the October 19-20, 2021, public meeting agenda to again review the Station Excellence Plan and its potential to affect overall safety culture.

Dr. Lam reported that all matters on the Committee's agenda for this public meeting have now been addressed and he 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 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.

XXXI ADJOURNMENT OF NINETY-NINTH PUBLIC MEETING

There being no further business the ninety-ninth public meeting of the Diablo Canyon Independent Safety Committee was then adjourned by its Chair, Dr. Peter Lam at 2:10 P.M.

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	October 19, 2021
AGENDA ITEM:	V-A
AGENDA TITLE:	DCISC 31st Annual Report on Safety of Diablo Canyon Operations; July 1, 2020 - June 30, 2021

CONSENT [☐] ACTION [XX] INFORMATION [☐]

The Settlement Agreement creating the DCISC provided that “The Committee shall prepare an annual report and such interim reports as it deems appropriate, which reports shall include any recommendations of the Committee.” A draft report covering Fiscal Year 2020-2021 has now been prepared by Committee Members Budnitz, Lam and Peterson, with contributions from the Technical Consultants and Legal Counsel, and is presented at this meeting for consideration and adoption. This is the Committee’s thirty-first annual report.

Upon adoption, the Settlement Agreement directs that the Report shall be provided first to PG&E, and that PG&E will respond in writing within 45 days. PG&E’s response shall be made a part of the Report, which will then be submitted to the California Public Utilities Commission, the Governor, the Attorney General and the California Energy Commission. The Committee’s annual reports are available to members of the public on the Committee’s website (www.dcisc.org) and through the California Polytechnic University Library and local public libraries.

RECOMMENDED COMMITTEE ACTION: Motion to approve the DCISC 2020-2021 Thirty-First Annual Report on Safety of Diablo Canyon Operations and to forward same to PG&E for its response, and upon receipt of that response, submit and file the completed report as provided by the Settlement Agreement.

Diablo Canyon Independent Safety Committee

THIRTY-FIRST ANNUAL REPORT ON THE SAFETY OF
DIABLO CANYON NUCLEAR POWER PLANT OPERATIONS

July 1, 2020 - June 30, 2021

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DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	October 19, 2021
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 the 2021 and 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) [EP Exercise 9/15/21]

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 (RJB, RFW)

December 7-8, 2021 Fact-finding Meeting (PFP, RDM)

January 11-12, 2022 Fact-finding Meeting (PL, RFW)

February 15-16, 2022 Public Meeting

March 22-23, 2022 (RJB, RDM)

April 12-13, 2022 (PFP, RFW)

May 10-11, 2022 (PL, RDM)

June 22-23, 2022 PM

July 13-14, 2022 Fact-finding Meeting (PFP, RFW)

August 16-17, 2022 Fact-finding Meeting (PL, RDM)

September 13-14, 2022 Fact-finding Meeting (RJB, RFW) [EP Exercise]

September 28-29, 2022 Public Meeting

DCPP 2021 Key Dates

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

March 1, 2021 (final day 3/4)

July 12, 2021 (final day 7/15)

November 1, 2021 (final day 11/4)

NRC Inspections

1/25-2/12/2021 NRC Triennial Fire Protection Inspection
2/22-3/11/2021 NRC Cyber Security Inspection
3/1-3/5/2021 NRC Radiation Safety Inspection
3/15-3/26/2021 NRC ISI Inspection
3/22-3/26/2021 NRC Outage Radiation Safety Inspection
5/31-6/4/2021 NRC TI 2515-194 Inspection
6/21-6/25/2021 NRC Security FFD Inspection 2/10/2021 –
7/26-8/13/2021 NRC DBAI Inspection
9/13-9/17/2021 NRC Exercise & PI Inspection
9/20-9/24/2021 NRC Radiation Protection Inspection
10/4-10/8/2021 NRC Security Access Authorization and Access Control Inspection
10/18/10/22/2021 NRC Heat Sink Inspection

Emergency Preparedness

2/10/2021 – 1Q DEP Tabletop Drill (Delta)
6/9/2021 – 2Q DEP Drill w/ Operations Simulator (Alpha)
9/15/21 — Full Scope Evaluated Exercise

DCPP 2022 Key Dates

NSOC Meetings

February 28, 2022 (Final day March 3)
July 11, 2022 (Final day July 28)
December 5, 2022 (Final day December 8)

Refueling Outages

1R23 3/27/22 – 5/22/22
2R23 10/23/22 – 11/26/22

Emergency Preparedness

EP Evaluated Exercise 9/14/22
Full Scope Evaluated Exercise 8/10/22

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	October 19, 2021
AGENDA ITEM:	V-C
AGENDA TITLE:	Discussion of Open Items List and Process for Revising the Scope of Post- shutdown Committee Activities.

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

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 and concerning a process for revising the scope of post-shutdown Committee Activities.

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 3/20FF & 4/20FF – satisfactory.]	8/20FF 11/20FF 1/21FF	Post-trip FFs & PMs
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 at 11/15FF – satisfactory.] [Reviewed QV assessment of 2R20 outage. Some mispositioning issues. Follow up on resolution.] [Reviewed 4/20FF – needs follow-up at FFs]	4/20FF 7/20FF 12/20FF	12/21FF
CO-11	M	Operator concerns and issues – review periodically the status of operator concerns and issues. [Reviewed Ops Human Performance & Ops Excellence Plan 8/16FF – satisfactory.] [Reviewed Ops Dept. performance 12/17FF – sat.] The DCISC team concluded [2/18PM] plans are in place to address areas identified for improvement in the Operations Department and the DCISC should continue to review Operations Department performance on a regular basis. [Reviewed Operations performance 5/21FF – satisfactory.]	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. 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 at 5/19FF – satisfactory.] [Reviewed 12/19FF, including Public Safety Power Shutoff Program.]	5/19FF 12/19FF	12/21FF 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. [Reviewed Operator License Class plans 1/19FF – satisfactory. Reviewed overall Retention Plan 9/20FF – satisfactory.]	9/20FF 6/21PM 9/21FF	2Q22FF
CM		Conduct of Maintenance (CM)		

October 19-20, 2021` Public Meeting
Second Draft 10/7/21

FF = Fact-finding Meeting

PM = Public Meeting

Q=Quarter

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
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. [Reviewed 1/20FF – satisfactory.]	1/20FF 3/21FF	1/22FF
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 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 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	2Q22FF
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).	8/19FF 8/20FF 8/21FF	10/21PM 3Q22FF
PI		Performance Improvement Programs		

PI-1		DCPP 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.]	See list at end of OIL	At least once per year 9/22FF
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 9/15/21?]	11/18FF 9/21FF	10/21PM 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). [2/18PM: Review DCCP study of loss of ASW on core damage frequency.	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. [Reviewed 7/20FF – satisfactory.]	7/20FF 1/21FF 8/21FF	3Q22FF
RP		Radiation Protection (RP)		
RP-3	M	Regularly review outage RP performance. [Reviewed 1R21 and 2R21 outage performance – satisfactory.]	12/19FF 12/20FF 7/21FF	Each RFO

RP-12	M	Review annual DCCP radioactivity release report each year. Review at Summer or Fall FFs. [Reviewed radiation release reports 7/18FF – satisfactory.]	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
NF		Nuclear Fuel Performance (NF)		
NF-9	M	Nuclear Fuel Performance & Issues (review after RFOs).	12/19FF 3/21FF	Each RFO
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	<i>Station Excellence Plan & Station Oversight Committee (4th Thursday of every month at 9:00am)</i>	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. [Reviewed at 7/09 FF, 6/13 FF, 11/14FF, 9/17FF, and 12/19FF – satisfactory.]	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.]	See list at end of OIL	Regularly 2Q22FF

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 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. [Reviewed Unit 2 forced outage – satisfactory.]		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. [Reviewed at 1/19FF & 9/19FF & 9/20FF – satisfactory.]		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 9/17FF – satisfactory. [Reviewed 4/19FF – need to follow up on supplemental outage worked training]		See list at end of OIL	Each RFO 2Q22FF
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 DCPD progress in implementing their cyber security program in compliance with NRC schedule. Implementation complete. [5/18FF.		3/19FF 11/20FF 9/21FF	10/21PM 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	2Q22FF
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		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
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.] DCCP Seismic study reviewed 3/15 FF & to be presented by DCCP at 6/15PM. Shoreline Fault – follow activities and events with the <i>(9/21 - nothing new to review; defer to 3Q22FF.)</i>	8/16FF 3/19FF	<i>3Q22FF</i> 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 cart reviewed 12/20FF – satisfactory.]]	5/19FF 12/19FF 12/20FF	12/21FF 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 11/17FF & 3/19FF - satisfactory.][Reviewed NRC Triennial FP Inspection 1/19FF – satisfactory.]	1/19FF 3/19FF 5/21FF	Regularly <i>3Q22FF</i>
LD		Learning & Development Programs (LD)		
LD-3	M	Review non-license technical, operations & accredited training programs at least annually. [Reviewed Training during COVID-19 5/20FF – satisfactory.]	7/19FF 5/20FF 1/21FF	<i>1/21FF</i>
LD-6	F	Observe operator <u>license</u> , re-qualification, classes periodically in FF meetings. Include Enhanced Simulator Training. [Observed Ops TCOA training & Eng. DC Power System] [Reviewed FLEX training 11/17FF – sat.] [Reviewed licensed operator training 9/20FF & 1/21FF – satisfactory.]	9/20FF 1/21FF	<i>1/21FF</i>
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 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. [Reviewed at 11/18FF – satisfactory. Continue to monitor.] 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. [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.]	8/19FF 2/20PM 10/20PM	10/21PM
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 9/21FF	1/22FF
		Public Meeting Items (PM) (Reference: Public Meeting Minutes Pages)		
Oct 2020 12	F	Consultant McWhorter reported that the DCISC fact finding team reviewed the first forced outage for a hydrogen leak on the Unit 2 main generator and as a second forced outage has now occurred there will need to be additional review at a future fact-finding. [Reviewed at 4/21FF: the RCE was currently expected to be completed in Summer 2021.]	10/20PM 4/21FF 9/21FF	10/21PM Close
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	4/22FF

Feb 2021 2	F	The Committee then tentatively planned to have Consultant McWhorter stay over for the date of September 15, 2021, to observe the Evaluated Emergency Exercise to be possibly accompanied by Dr. Peterson.	2/21PM 9/21FF	Close
3	F	The DCISC Fact-Finding Team reviewed the monitoring plan and found it satisfactory and the DCISC representatives assessed that Unit 2 was in a good position for restart. The DCISC representatives concluded the 2Z22 forced outage was properly managed and the DCISC should review the final RCE during a future fact-finding.	2/21PM 9/21FF	Close
4	F	The DCISC Fact-Finding Team found the Cybersecurity Program to be effectively managed and recommended the DCISC follow-up on the results of the NRC inspection.	2/21PM 9/21FF	Close to SEC-4
5	F	Two items were noted for follow-up by the NSOC in January 2021, those being the results of the corporate assessment of DCPD by the Institute of Nuclear Power Operations (INPO) and an item involving the Low Temperature Over-pressurization Protection (LTOP) System. Mr. McWhorter reported the DCISC representatives found the NSOC meeting to be effective and the DCISC should follow up on these two items.	2/21PM 1/21FF 4/21FF	Close to 1/21FF & 4/21FF
6	F	The team was concerned about the findings of the RCE and recommended that the DCISC should continue to follow this issue in future fact-finding and during future public meetings.	2/21PM 9/21FF	Close
7	F	DCISC fact-finding team found the overall reduction in safety system functional failure to be acceptable and recommended that the DCISC cease looking at this issue on a recurring basis and instead continue to review NRC Maintenance Rule functional failures and NRC Maintenance Rule performance in general.	4/21FF	Close to 4/21FF
8	F	The DCISC representatives concluded the plant's response to this event [LTOP] was appropriate but the DCISC should review this event when the root cause evaluation is completed.	2/21PM 4/21FF	Close to 4/21FF
9	F	Station (the "South Texas Project") has experienced a unit trip due to frozen feedwater lines. Dr. Peterson inquired whether DCPD would be reviewing Texas' experience for issues which could potentially impact DCPD. Mr. Guess replied that the South Texas Project reactor trip is believed to be related to the very low temperatures experienced which exceeded the plant's design basis and he agreed that an extent of condition review may be appropriate.	2/21PM 7/21FF	Close
June 2021 PM 1	F	<i>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.</i>	6/21 PM	41/22FF

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.	6/21 PM	2Q22FF
3	F	Unit 2 restarted on April 25, 2021 and has continued to operate since then. Mr. McWhorter reported the [Generator Hydrogen leak] RCE is continuing and is expected to be completed in July 2021 and he recommended the DCISC review the RCE for future fact-finding and a future public meeting.	6/21 PM	10/21PM Close
4	F	The FFT concluded DCP'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.	6/21 PM	2Q22FF
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.	6/21 PM	12/21FF
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.	6/21 PM	2Q22FF
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.	6/21 PM	12/21FF or Close?
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.	6/21 PM	12/22FF
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.	6/21 PM	12/21FF
10	F	an inquiry from Mr. Greg Haas, District Representative for U.S. Representative Saud Carbajal inquiry whether there were alternative engineering standards or practices for which might qualify for a waiver from the NRC in context of the plant approaching the end of its operational life. Dr. Peterson directed that this question be investigated during a future fact-finding and a response be provided to Mr. Haas.	6/21 PM 9/21 FF	Close
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.	6/21 PM	12/21FF

12	F	In response to Dr. Budnitz' request, Mr. Hayes agreed to provide the scheduled for future SOC [Station Oversight Committee] meetings so as to possibly coordinate the observation of a meeting by the DCISC during a fact-finding visit.	6/21 PM	Close to OE-2
13	F	Dr. Budnitz made a request that an item be included on the October 19-20, 2021 public meeting agenda to again review the Station Excellence Plan and its potential to affect overall safety culture.	6/21 PM	10/21PM then Close

DCPP Systems/Components Reviewed Periodically [Yellow = Upcoming FF]

4 kV – Jan 2020
 230 kV & 500 kV – Dec 2019 12/21FF
 Aux Feedwater – Sep 2021
 Aux Saltwater – Mar 2020
 Aux Bldg Ventilation – Apr 2021
 Chemical & Volume Control System and High Pressure Injection – Jan 2021
 Component Cooling Water – Apr 2020
 Compressed Air – Jul 2020
 Condensate & Feedwater – Sep 2019 11/21FF
 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 2021
 Fire Protection & Detection Systems – Aug 2020
 Nuclear Instrumentation & In-core Instrumentation – Sep 2020
 Plant Protection System – Mar 2021
 Radiation Monitoring – Apr 2021
 Radwaste Processing – Nov 2020

Reactor Coolant System & Pumps – Aug 2021
 RCS Process Control System – May 2020
 Refueling Equipment – Dec 2018 1/22FF
 RHR – Jan 2021
 Rod Control & Indication – Sep 2020
 Safety Injection Pumps – Jan 2021
 Spent Fuel Pool Cooling & HVAC – July 2021
 Steam Generators – Aug 2020
 Special Protection System – Mar 2020
 Turbine-Generator – Dec 2020

DCPP Programs Reviewed Periodically [Yellow = Upcoming FF]

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
 Cranes – Sep 2019
 Configuration Management – May 2019 11/21FF
 Corrective Action – CARB – Apr 2021
 Emergency Preparedness Exercises – Sep 2021

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Employee Concerns Program – Aug 2020
 Equipment Environmental Qualification – Mar 2020
 Equipment Reliability – **Sep 2021**
 Fire Doors & Door Life Cycle Mgm't. Plan – Mar 2019
 Fire Protection Program (NFPA-805) – May 2021
 FLEX Program – 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 **12/21FF**
 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 **1/22FF**
 Operational Decision Making – Sep 2020
 PRA 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 PRA – 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

October 19-20, 2021 Public Meeting
 Second Draft 10/7/21

FF = Fact-finding Meeting

PM = Public Meeting

Q = Quarter

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	October 19, 2021
AGENDA ITEM:	VI-B
AGENDA TITLE:	Documents Provided to the Committee

CONSENT ☐ ACTION ☐ INFORMATION ☒

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 June 2021.

RECOMMENDED COMMITTEE ACTION: None, information item only.

June
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
7/7/2021	DCL-21-046	Emergency License Amendment Request 21-05 Revision to Technical Specification 3.7.8, "Auxiliary Saltwater System "Emergency LAR for Multiple Grounds on ASW Pump 1-1 issue
7/8/2021	DCL-21-048	Response to Request for Additional Information on Emergency License Amendment Request 21-05, "Revision to Technical Specification 3.7.8, 'Auxiliary Saltwater (ASW) System'"

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
7/1/2021	DIABLO CANYON POWER PLANT, UNITS 1 AND 2 – SECURITY BASELINE INSPECTION REPORT 05000275/2021401 AND 05000323/2021401
7/8/2021	DIABLO CANYON NUCLEAR POWER PLANT, UNIT 1 - ISSUANCE OF AMENDMENT NO. 238 RE: REVISION TO TECHNICAL SPECIFICATION 3.7.8, "AUXILIARY SALTWATER (ASW) SYSTEM" (EMERGENCY CIRCUMSTANCES) (EPID L-2021-LLA-0123)

D. PSRC Documents (PSRC Minutes)

Date	Doc. No.	Title
PSRC Minutes	2021-009	Revision to Procedure OM4.ID2, "Plant Staff Review Committee (PSRC)"

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

Type	Doc. No.	Title
CE	SAPN 51116798	DA-TI1090R SCCW Temp Reads 10 Deg F High
CE	SAPN 51108157	DA-PCV-456 exceeded limiting stroke time
1 WGE	SAPN 51099522	DA-Unit 2 Gen/SCCW elevated H2 leakage
2 WGE	SAPN 51111286	DA-Security Loss of Pivotal Cameras
2 WGE	SAPN 51114373	DA-TQ2.ID8 not met during training
2 WGE	SAPN	DA-QAAF: Placekeeping in Coating Packag

June
List of Documents Transmitted Electronically

	51119123	
2 WGE	SAPN 51105018	DA-U1 Sys 39B NSR Rad Monitors Goal Sett
2 WGE	SAPN 51115329	DA-STP V-5A2 Step Inadvertently Performe
2 WGE	SAPN 51104433	DA-U-2 TG Bearing #10 Cardox alarm
Eff. Eval		There are no effectiveness evaluations for this month.
6/30/2021		DN Priority 5.1 and 5.2 Created 6-1-21 – 6-30-21
6/30/2021		DCPP 1 WGE and 2 WGE Notifications Completed 6/1/2021 – 6/30/2021
6/28/2021		DCPP CAP Station Index
5/27/2021		CAP Summary
6/23/2021		Open LTCA DA Notifs Station Significance 1 & 2 as of 6/23/21
6/23/2021		Open LTCA DA Notifications Station Significance 3 as of 6/23/21
6/28/2021		20 Oldest Non-LTCA DA Notifications as of 6/28/2021
6/28/2021		Open RCEs As of 6/28/2021
6/14/2021		June 2021 PI Status Summary
6/28/2021		June 2021 PI Status Summary
		Diablo Canyon Top 5 Significance Level 1 an 2 Non-LTCA DAs
5/31/2021		DN DA Initiation
5/27/2021		High and Medium CAP Items – Five Oldest
6/3/2021		High and Medium CAP Items – Five Oldest
6/10/2021		High and Medium CAP Items – Five Oldest
6/17/2021		High and Medium CAP Items – Five Oldest
6/24/2021		High and Medium CAP Items – Five Oldest

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

Date	Doc. No.	Title
6/1/2021		Quality Digest – June Edition 2021
6/2/2021	#2021-IA-06	2021 Special Processes and ISI/IST Audit

G. Nuclear Safety Culture Monitoring Panel Reports

Date	Doc. No.	Title
7/9/2021		Nuclear Safety Culture Review Report 2 nd Period 2021; SCLT Meeting: June 24, 2021

June
List of Documents Transmitted Electronically

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

Date	Doc. No.	Title
6/8/2021	SAPN 51222076	QHSA: OM15.ID6 Station Programs
7/13/2021	SAPN 51106757	71111.11 Objective 3 quick hit SA
3/4/2021	SAPN 51088415	Perform 2021 Part 37 Assessment
6/29/2021	SAPN 51119018	BM-Manual Material Handling Guidance
5/26/2021	SAPN 51025489	Records Program Informal Benchmarking

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

Date	Doc. No.	Title
1/11/2021		Generation Operating Plan 2021 – 2025, No new updates this month.
6/28/2021	PIIR	Diablo Canyon Power Plant; Plant Performance Improvement Report; Data: May 2021
6/14/2021		June 2021 PI Status Summary
6/28/2021		June 2021 PI Status Summary
6/8/2021		June 2021 Security & Emergency Services Performance Improvement Dashboard
6/10/2021		June 2021 Maintenance PI Dashboard
6/15/2021		June 2021 Operations Services Performance Improvement Dashboard
6/15/2021		June 2021 Engineering Services Performance Improvement Dashboard
Station Initiative		There are no new Station Initiatives for this month.

J. INPO

Date	Doc. No.	Title
5/28/2021		Diablo Canyon IPSR
		2021Q1 PG&E Corporate IPSR

K. Operational Documents (ODM Minutes, POAs)

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

June
List of Documents Transmitted Electronically

POA		There are no new POAs for this month.
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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
3/16/2020	Our Path Forward 2021; DCPD Station Excellence Plan.
6/3/2021	Station Oversight Committee Agenda

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 202122	T+1 Performance Critique
	Week 202123	T+1 Performance Critique
	Week 202124	T+1 Performance Critique
	Week 202125	T+1 Performance Critique
	Week 202126	T+1 Performance Critique
		T+1 Monthly Performance Critique 2122-2125

July
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
7/19/2021	DCL-21-055	Owner's Activity Report for Unit 2 Twenty-Second Refueling Outage

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
07/01/2021	DIABLO CANYON POWER PLANT, UNITS 1 AND 2 – SECURITY BASELINE INSPECTION REPORT 05000275/2021401 AND 05000323/2021401
7/28/2021	DIABLO CANYON POWER PLANT, UNITS 1 AND 2 – TEMPORARY INSTRUCTION 2515/194 REPORT 05000275/2021012 AND 05000323/2021012
7/29/2021	DIABLO CANYON NUCLEAR POWER PLANT, UNITS 1 AND 2 – CLOSEOUT OF GENERIC LETTER 2004-02, "POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON EMERGENCY RECIRCULATION DURING DESIGN BASIS ACCIDENTS AT PRESSURIZED-WATER REACTORS (EPID L-2017-LRC-0000)

D. PSRC Documents (PSRC Minutes)

Date	Doc. No.	Title
PSRC Memo	07/14/2021	Plant Staff Review Committee Members/Alternates

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

Type	Doc. No.	Title
2 WGE	SAPN 51113367	DA-QAAF: Fire Protection Pre-Plans
2 WGE	SAPN 51112607	DA-2021 TFPI: Cardox Valve Sequencing
2 WGE	SAPN 51106026	DA-QARMA: Equipment Reliability
2 WGE	SAPN 51110933	DA-U1 TDAFWP Gov Vlv FCV-15 Interference
2 WGE	SAPN 51116864	DA-QAAF Fire Brigade Procurement Practi
2 WGE	SAPN 51105175	DA-TREND - Late Records
Eff. Eval		
7/14/2021	SAPN	IER L2-15-29 Weaknesses in Reactivity Control

July
List of Documents Transmitted Electronically

	50798540 / 51103869	
7/01/2021		High and Medium CAP Items - Five Oldest as of 07/01/2021
06/30/2021		Significance Level 1 and 2 Work Group Evaluations Created 05/28/2021 - 06/30/2021
7/31/2021		List of DN 5.1 and 5.2 Created 7-1-2021 – 7-31-2021
7/31/2021		DCPP 1 WGE and 2 WGE Notifications Completed 7/31/2021
7/22/2021		Open LTCA DA Notifications Station Significance 3 as of 7/22/21
		DN DA Initiation as of 7-1-2021
07/22/2021		20 Oldest Non-LTCA DA Notifications as of 07/02/2021
07/26/2021		DCPP CAP Station Index
07/26/2021		Open RCEs as of 07/26/2021
07/22/2021		Open LTCA DA Notifications Station Significance 1 & 2
07/21/2021		Performance Improvement Status Summary
07/01/2021		CAP Summary

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

Date	Doc. No.	Title
07/06/2021		Quality Digest, July 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
7/29/2021	SAPN 51114124	QHSA REMP Against NRC IP 71124.07
7/20/2021	SAPN 51057867	Weld Program QHSA
06/30/2021	SAPN 51122063	Quick Hit SA of DCPD Rigging Performance
07/19/2021	SAPN 51123560	INPO OE-Startup Events & Ops Fundamental
07/20/2021	SAPN 51068534	Corporate Evaluation FSA
05/27/2021	SAPN 51099263	Power-Operated Valve Program SA

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

Date	Doc. No.	Title
1/11/2021		Generation Operating Plan 2021 – 2025, No new updates

July
List of Documents Transmitted Electronically

		this month.
7/22/2021	PPIR	Diablo Canyon Power Plant; Plant Performance Improvement Report; Data: June 2021
07/08/2021		July 2021 PI Status Summary
07/14/2021		July 2021 Operations Services Performance Improvement Dashboard
07/08/2021		July 2021 Maintenance PI Dashboard
07/12/2021		July 2021 Engineering Services Performance Improvement Dashboard
07/12/2021		July 2021 Security & Emergency Services Performance Improvement Dashboard
07/21/2021		July 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
7/26/2021	ODM	Operational Decision-Making (ODM) Held on EI on Unit 1 Due to Main Turbine Governor Valve 1 (FCV-142) Servo Positioner Controller (SPC1) Failing
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
08/02/2021	SDP21-04 Rev. 0	Unit 1 ASW Pump Motor 1-1 Ground Alarm

N. Miscellaneous

Date	Title
	There are no miscellaneous documents for this month.

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 202127	T+1 Performance Critique

July
List of Documents Transmitted Electronically

	Week 202128	T+1 Performance Critique
	Week 202129	T+1 Performance Critique
	Week 202130	T+1 Performance Critique
	July	T+1 Monthly Performance Critique 2126-2130

August
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
8/31/2021	DCL-21-056, DIL-21-006, HBL-21-015, HIL-21-003	Proposed Revision to the Pacific Gas and Electric Company Quality Assurance Program Approval Form for Radioactive Material Packages No. 0202

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
8/2/2021	DIABLO CANYON POWER PLANT, UNITS 1 AND 2 – INTEGRATED INSPECTION REPORT 05000275/2021002 AND 05000323/2021002
8/3/2021	DIABLO CANYON NUCLEAR POWER PLANT – SECURITY BASELINE INSPECTION REPORT 07200026/2021401
8/4/2021	DIABLO CANYON POWER PLANT, UNITS 1 AND 2 – SECURITY BASELINE INSPECTION REPORT 05000275/2021405 AND 05000323/2021405
8/12/2021	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)
8/17/2021	DIABLO CANYON POWER PLANT, UNITS 1 AND 2 - NOTIFICATION OF NRC TRIENNIAL HEAT EXCHANGER/HEAT SINK PERFORMANCE INSPECTION (05000275/2021004 AND 05000323/2021004) AND REQUEST FOR INFORMATION

D. PSRC Documents (PSRC Minutes)

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

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

Type	Doc. No.	Title
08/18/2021	SAPN 51124262	DA-D/G 2-3 fuel leak
08/12/2021	SAPN 51117571	LTCA - DA-TCV-23 abnormal response
07/28/2021	SAPN 51110278	Effectiveness Evaluation -SAPN 51091733
08/17/2021	SAPN 51103892	IER L2-15-20 Effectiveness Review
08/09/2021	SAPN	RCE – U2 Main Generator Forced Outages Rev 0

August
List of Documents Transmitted Electronically

	51092854	
08/30/2021		Significance Level 1 & 2 Work Group Evaluations created 07/01/2021 – 07/31/2021
08/25/2021		Open LTCA DA Notifications Station Significance 3
08/31/2021		List of DN 5.1 and 5.2 Created 08-1-2021 – 08-31-2021
08/31/2021		No DCPD 1 WGE and 2 WGE Notifications Completed 08/01/2021 – 08/31/2021
08/30/2021		DCPD CAP Station Index
08/25/2021		Open LTCA DA Notifs Station Significance 1 & 2 as of 08/25/2021
08/25/2021		20 Oldest Non-LTCA DA Notifications as of 08/25/2021
08/30/2021		Open RCEs as of 08/30/2021
08/23/2021		Performance Improvement Status Summary

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

Date	Doc. No.	Title
08/01/2021		Quality Digest August Edition 2021
08/16/2021		Quality Digest August Second Edition 2021
08/04/2021	#2021-IA-07	2021 Cyber and Physical Security Audit
08/31/2021	#2021-AS-8	2021-AS-8 IC Performance
08/31/2021	#2021-EL-01	Escalation Letter - I&C Maintenance Performance

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
07/27/2021	51069450	Quick Hit SA ER Program INPO AP-913
08/09/2021	51114123	QHSA Rad Effluents against IP 71124.06
08/05/2021	51053265	2021 EP Exercise & PI Inspection
08/26/2021	51125127	2021 DC Security AA / AC Inspection

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

Date	Doc. No.	Title
1/11/2020		Generation Operating Plan 2021 – 2025, No new updates this month.
	PIIR	Diablo Canyon Power Plant; Plant Performance Improvement Report; Achieving Results; Data: July 2021
08/23/2021		August 2021 PI Status Summary
08/09/2021		August 2021 PI Status Summary

August
List of Documents Transmitted Electronically

08/12/2021		August 2021 Security & Emergency Services PI Dashboard
08/16/2021		August 2021 Operations Services PI Dashboard
07/08/2021		August 2021 Maintenance PI Dashboard
08/12/2021		August 2021 Engineering Services PI Dashboard
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
ODMs		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
08/02/2021	SDP21-04 Rev. 0	Unit 1 ASW Pump Motor 1-1 Ground Alarm

N. Miscellaneous

Date	Title
	There are no miscellaneous documents for this month.

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 202131	T+1 Performance Critique
	Week 202132	T+1 Performance Critique
	Week 202133	T+1 Performance Critique
	Week 202134	T+1 Performance Critique
	August	T+1 Monthly Performance Critique 2131-2134

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	October 19-20, 2021
AGENDA ITEMS:	VII-A & B and XIII C & XXV 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 June 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 July 14-15, August 18-19 and September 13-14, 2021.

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:

October 19, 2021

AGENDA ITEM:

XIX -A

AGENDA TITLE:

Address, Remarks and Discussion In
Recognition of the 100th Meeting of the
DCISC and Discussion on Its Future Role.

CONSENT []

ACTION []

INFORMATION [X]

Staff Summary: Dr. William E. Kastenberg, founding member of the Diablo Canyon Independent Safety Committee, and Robert R. Wellington, Esq, Legal Council to the Committee from its earliest days, will present remarks on the Committee's organization and the evolution of its review of operational safety at DCPD and engage in a discussion with the current Members of the DCISC concerning the Committee's future role.

RECOMMENDED COMMITTEE ACTION: Information item with direction as appropriate.

Dr. William E. Kastenberg

On December 31, 2007, Dr. Kastenberg retired as the Daniel M. Tellep Distinguished Professor of Engineering, Emeritus, from the University of California, Berkeley. Professor Kastenberg was elected to the National Academy of Engineering in 1997 for his contributions to nuclear reactor safety and risk. He was elected a Fellow of the American Association for the Advancement of Science in 1990 and of the American Nuclear Society in 1978. Kastenberg has won distinguished teaching awards from the American Nuclear Society (Arthur Holly Compton Award in 2000), the American Society for Engineering Education (1973), and the Engineering Graduate Students' Association at UCLA, (1971).

Dr. Kastenberg was appointed by the Governor of California to the Independent Safety Committee for the Diablo Canyon Nuclear Power Plant, and served for 10 years (1990-2000). He was the first appointee and the first chairman of the Committee. During that time, he became intimately knowledgeable regarding all aspects of Diablo Canyon plant design, operations, operator training, licensing and safety. He also instituted many of the Committee's processes and procedures that are still in effect today.

Dr. Kastenberg was appointed as a part-time Administrative Law Judge—Technical on the Atomic Safety and Licensing Board for the U.S. Nuclear Regulatory Commission (2007-present). He has been involved in the adjudication process regarding safety and environmental issues associated with plant license extension for two nuclear power plants, and one proposed new nuclear power plant.

UC President Atkinson appointed Dr. Kastenberg chairman of the Scientific Panel of the Advisory Group on Low-Level Radioactive Waste, reporting to Governor Davis of California (1999-2000). The panel held public meetings and worked very closely with public interest groups on social and technical issues. Kastenberg was also a founder and the Director of the UC Berkeley, Center for Nuclear and Toxic Waste Management. The Center focused on both institutional and technical issues and included graduate students and faculty from Engineering, Public Policy, Political Science and Energy and Resources at UCB.

Dr. Kastenberg has also been a member of the Advisory Committee on Nuclear Facility Safety, U.S. Department of Energy (DOE, 1988-1991) and served as the Sub-committee Chairman for safety and risk analysis. In this capacity, he was involved in reviewing the safety of DOE's research and production reactors, and other nuclear process facilities. He has served on external safety review committees for Los Alamos National Laboratory, Lawrence Livermore National Laboratory, Argonne National Laboratory and Brookhaven National Laboratory. Kastenberg chaired the Peer Review Committee for the Draft Reactor Risk Reference Document, NUREG-1150 (1987-1988). The committee reviewed the results of advancements in risk assessment methodology with application to five U.S. Nuclear Power Plants. Subsequently, the committees' recommendations were incorporated into the final draft and became the basis for risk informed regulation.

Dr. Kastenbergr spent a sabbatical year as a Senior Fellow with the Advisory Committee on Reactor Safeguards, USNRC (1979-1980) working on TMI "Lessons Learned," and the development of Quantitative Safety Goals. Many of the recommendations based on his work were implemented at a number of nuclear power plants in the United States. He spent a sabbatical year at the Nuclear Research Center in Karlsruhe, Germany, (1972-1973), where he worked on safety issues related to a liquid metal cooled fast breeder reactor (SNR-300).

Dr. Kastenbergr has developed and taught graduate courses on reactor safety and risk for over 30 years. He was among the first faculty nationwide to develop academic courses on Fast Reactor Safety (1970s), Light Water Reactor Safety (1980s) and Nuclear Reactor Risk Analysis (1990s). In addition to teaching basic theories of safety and risk, Kastenbergr used the PSARs and FSARs of existing nuclear power plants (including Diablo Canyon) as a basis for lectures, homework and term-projects. Former graduate students that have completed their research under his direction have taken leadership positions in academia, government, and industry.

Professor Kastenbergr has authored or co-authored over 150 published papers in peer-reviewed journals and conference proceedings related to nuclear reactor safety, nuclear reactor risk assessment, risk management, public health and environmental risk assessment, and multi-stakeholder decision making.

Robert R. Wellington

Rob graduated from Stanford University in 1963, receiving a Bachelor of Arts degree, majoring in both Political Science and History. He then attended the University of California's Hastings College of the Law in San Francisco, and in 1966 received an LL.B (now Juris Doctor) degree, with a class standing of 34th in a class of 312 graduates. He received the American Jurisprudence Award in Municipal Law (highest grade) and served for two years as Associate Editor of the Hastings Law Journal (top 10% of class).

Rob has been the legal counsel for the Diablo Canyon Independent Safety Committee since its organization in 1989.

Rob came to the Monterey Peninsula in 1966 and entered into private practice with a large Monterey firm. He has had his own office since 1971. His wife, Joanie, is a physical therapist who worked for the Visiting Nurses' Association for over 30 years. They have two children, now graduated from college.

In 1972 Rob became legal counsel to the Monterey Regional Water Pollution Control Agency, a 12-member entity joint powers agency providing wastewater treatment and disposal services to all communities in the northern part of Monterey County. Since that time, Rob's legal work has almost entirely involved public entities and municipalities. He has been the City Attorney City for the City of Marina since its incorporation in 1975, and was City Attorney for Del Rey Oaks from 1974 to 2010. He has been legal counsel to the Monterey Regional Waste Management District - comprised of nine public agencies - since 1973, the Carmel Area Wastewater District since 1984, the Pebble Beach Community Services District since 1989, and the Santa Lucia Community Services District since January 2010. The firm also provides legal services on an as-needed basis to Community Human Services Project (a 9-member joint powers agency) since 1975 (and still at 1975 rates). The firm has also provided services as City Attorney to the City of San Juan Bautista since 2006.

From years of specialized practice, Rob is very familiar and has a working experience with almost all aspects of government agency laws, including but not limited to personnel matters and labor relations, drafting of ordinances, resolutions, contracts, construction and public works bidding laws, land use, zoning, general and specific plans, inverse condemnation, CEQA and NEPA, the Brown Act and the Public Records Act, conflict of interest codes and the Fair Political Practices Act, ADA, EEOC and FEHA, eminent domain (condemnation) proceedings, election laws, initiative and referendum, annexations, basic redevelopment law, the Clean Water Act, taxes and bonds, rate setting and lien proceedings, and code enforcement. He has represented public agency clients before numerous administrative and regulatory agencies, including the Regional Water Quality Control Board, the State Water Resources Control Board, the California Coastal Commission, the Public Utilities Commission and the Environmental Protection Agency.

Rob is a member of the State Bar of California (and its sections on Public Law, Litigation and Technology), the Monterey County Bar Association and the National Institute of Municipal Law Officers, as well as the Attorney's Departments of both the League of California Cities and the California Association of Sanitation Agencies. In civic activities, he is a past president of the Monterey Peninsula Jaycees (1975) and the Boys' and Girls' Club in Seaside (1976 & 1977). His activities in later years were youth-oriented, serving as a YMCA and Monterey Magic basketball coach (8 years), Pony League baseball coach (4 years), Cub Scout Pack Leader (3 years) and Boy Scout Area Committee Chairman. Presently Rob tries to find time to run (15 marathons), swim and chase after his grandchildren .