

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

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

* * * * *

Wednesday & Thursday
October 23-24, 2019
Avila Lighthouse Suites

Point San Luis Conference Room
First & 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>.

Morning Session - 10/23/2019 – 9:00 A.M.

I CALL TO ORDER - ROLL CALL

II INTRODUCTIONS

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 established by the Presiding Officer for each speaker. 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. (Please Note: (a) The Committee may consider at any time requests to change the order of a listed agenda item; (b) 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.)*

IV CONSENT AGENDA

Routine items which the Committee can approve with a single motion and vote. A member may request that any item be placed on the regular agenda for separate consideration.

A. Minutes of June 4-5, 2019, Meeting: Approve

V ACTION ITEMS

A.	DCISC 29 th Annual Report on Safety of Diablo Canyon Operations; July 1, 2018 – June 30, 2019	Discussion/Approval
B.	Update on Financial Matters and Committee Activities during 2019-2020	Discussion/Action
C.	Discussion of Open Items List	Discussion/Action

VI COMMITTEE MEMBER REPORTS AND DISCUSSION

A. Public Outreach, Site Visits and Other
Committee Activities; Scheduling and Confirmation
of Future Fact-findings and Public Meetings

B. Documents Provided to the Committee

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

- A Technical Consultant Richard D. McWhorter Jr.:
Fact-finding Topics; Report on and Approval of
July 16-17, 2019 Fact Finding Report
- B. Assistant Legal Counsel Robert W. Rathie
Administrative, Regulatory and Legal Matters

VIII ADJOURN MORNING MEETING

Afternoon Session – 10/23/2019 – 1:30 P.M.

IX RECONVENE FOR MORNING MEETING

X COMMITTEE MEMBER COMMENTS

XI PUBLIC COMMENTS AND COMMUNICATIONS

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XII INFORMATION ITEMS BEFORE THE COMMITTEE

- A. Informational Presentations Requested by the
Committee of PG&E Representatives
 - 1) Presentation on the State of the Plant including
Key Events, Highlights, Organizational Changes
and Station Activities since DCISC's June 2019 Public Meeting
 - 2) Plans for Future Staffing through the Cessation of Operations;
Including Current Staffing Numbers and Trends, Recruitment
of New Employees, Results of the Tranche 2 Retention Agreement
Enrollment, and Future Professional Development Opportunities

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

- C. Technical Consultant Ferman Wardell:
Fact-finding Topics; Reports on and Approval of
August 21-22, 2019 Fact Finding Report

XIV ADJOURN AFTERNOON MEETING

Evening Session - 10/23/2019 – 5:30 P.M.

XV RECONVENE FOR EVENING MEETING

XVI COMMITTEE MEMBER COMMENTS

XVII PUBLIC COMMENTS AND COMMUNICATIONS

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XVIII DISCUSSION BY COMMITTEE & THE PUBLIC

- 1) Committee Comments and Receive Comments from
Members of the Public Regarding a Potential Role for
the DCISC to Review Nuclear Fuel-Related Issues
After Expiration of the DCPD Operating Licenses
Discussion/Direction

XXIX ADJOURN EVENING MEETING

Morning Session - 10/24/2019 - 9:30 A.M.

XX RECONVENE FOR MORNING MEETING

XXI COMMITTEE MEMBER COMMENTS

XXII 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 established by the Presiding Officer for each speaker. 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.*

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

- B. Informational Presentations Requested by the
Committee of PG&E Representatives.
- 3) Update on the Status of NRC Performance Indicators,
Licensee Event Reports, NRC Inspection Reports and
Notices of Violation, Issues Raised by NRC Resident
Inspectors, and Major Regulatory Issues
(Open Compliance Issues and License Action Requests).
- 4) Decommissioning Planning Update

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

- D. Technical Consultant Richard D. McWhorter Jr.:
Fact-finding Topics; Report on and Approval of
September 11-12, 2019 Fact Finding Report

XXV ADJOURN MORNING MEETING

Afternoon Session - 10/24/2019 - 1:00 P.M.

XXVI RECONVENE FOR AFTERNOON MEETING

XXVII COMMITTEE MEMBER COMMENTS

XXVIII PUBLIC COMMENTS AND COMMUNICATIONS

Anyone wishing to address the Committee on matters not appearing on the Agenda may do so now. The public may comment on any matter listed on the Agenda at the time the matter is being considered by the Committee. *There will be a time limit established by the Presiding Officer for each speaker. 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.*

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

- C. Informational Presentations Requested by the
Committee of PG&E Representatives
- 5) Current Status of Programs that Monitor Human Performance
and Trends in Human Performance
- 6) Update on Plans for Relicensing of the Independent
Spent Fuel Storage Facility

XXX 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

XXXI ADJOURNMENT OF NINETY-FOURTH PUBLIC MEETING

The DCISC's policy is to schedule its public meetings in locations that are accessible to people with disabilities. The Avila Lighthouse Suites Point San Luis Conference Facility is a wheelchair accessible facility. 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 23, 2019

AGENDA ITEM: IV-A

AGENDA TITLE: Minutes of June 4-5, 2019,
Public Meeting

CONSENT [X] ACTION [] INFORMATION []

Staff Summary: Attached are the Minutes which have been prepared from the Committee's ninety-second public meeting held on June 4-5, 2019 in Avila Beach, CA.

(Each session was 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

MINUTES
of the
DIABLO CANYON INDEPENDENT SAFETY COMMITTEE'S
JUNE 4-5, 2019 PUBLIC MEETING
[For approval at the October 23, 2019 Public Meeting]

Wednesday & Thursday
June 4-5, 2019
Avila Beach, California

Notice of Meeting

A legal notice of the plant tour and 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. Information on the public tour and a copy of the entire meeting agenda packet were also posted on the Committee's website at www.dcisc.org.

Agenda

I CALL TO ORDER - ROLL CALL

The June 4, 2019, public meeting of the Diablo Canyon Independent Safety Committee, the ninety-third meeting of the DCISC, was called to order by Committee Chair Dr. Robert J. Budnitz at 8:00 A.M. at the Point San Luis Conference Room at the Avila Lighthouse Suites in Avila Beach, California.

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

II INTRODUCTIONS

Dr. Budnitz welcomed those present in the meeting room, introduced himself and briefly reviewed the appointment to the DCISC by officials of the State of California and the professional backgrounds of each of his fellow Members, Dr. Per F. Peterson, the appointee of the Governor of California, and Dr. Peter Lam, the appointee of the Chair of the California Energy Commission (CEC). Dr. Budnitz serves on the Committee as the appointee of the California Attorney General. The Chair then introduced and briefly described the professional background of each the Committee's Technical Consultants, Mr. R. Ferman Wardell, P.E. and Mr. Richard D. McWhorter Jr. and introduced Assistant Legal Counsel Robert W. Rathie. Dr. Budnitz then introduced and recognized DCPD Director of Nuclear Site Services Mr. Tom Baldwin and Chief Nuclear Officer Support Manager Mr. Hector Garcia present to act as meeting facilitators. Dr. Budnitz reported Mr. Garcia also ably serves as the principal liaison and point of contact for the Committee with PG&E and within the DCPD organization.

III PUBLIC COMMENTS AND COMMUNICATIONS

The Chair reviewed the procedures and advice from the agenda for the meeting concerning receipt of comments from members of the public wishing to address remarks to the Committee on matters on and not on the agenda for a public meeting and invited anyone who wished to address remarks to the Committee Members concerning matters not on the agenda for this public meeting to do so now. There was no response to the Chair's invitation.

IV ACTION ITEMS

A. Update on Financial Matters and Committee Activities. The Chair requested Assistant Legal Counsel Rathie to provide this report. Mr. Rathie reported the Committee has received two payments for calendar year 2019 provided by PG&E's ratepayers in accordance with a California Public Utilities Commission (CPUC) decision and that continued funding for the DCISC's operations has not been affected by the recent PG&E bankruptcy filing. Mr. Rathie stated that Senior Advising Nuclear Procurement Specialist at DCPD Mr. Brian DeCaires has provided valuable assistance to the Committee's accountants and Legal Counsel's office in securing uninterrupted funding for 2019. Mr. Rathie reported the Committee completed calendar year 2018 within the amount of funding provided for the Committee's operations and following its normal practice any funds unspent at the end of 2018 should now be returned by the Committee to PG&E for credit to its ratepayers. He commented it appears that DCISC expenditures for 2019 may be somewhat greater than for 2018 but at this point in time it appears the Committee will also complete 2019 within the amount of its operational funding grant.

On a motion made by Dr. Budnitz, seconded by Dr. Peterson, the Committee unanimously approved return of unspent grant funds from its calendar year 2018 operations to PG&E for credit to its ratepayers.

Mr. Rathie directed the Members attention to the list of planned activities for the remainder of 2019 and for 2020 prepared by Mr. Wardell that was included in the agenda packet for the meeting.

B. Discussion of Issues on Open Items List: Dr. Budnitz asked Consultant Wardell to lead a review of items on the Open Items List which Dr. Budnitz described as a very important tool used by the Committee to establish priorities and to track and follow issues, concerns, and information identified as requested or to be provided on a periodic basis and for subsequent action during fact-finding or public meetings. Items captured on the Open Items List which represent changes from the February 2019 version of the list were shown in bold red text on the version of the Open Items List provided with the agenda packet for this meeting. Items concerning which action was taken included the following¹:

¹ Key to abbreviations used: Dr. Robert J. Budnitz (RJB), Dr. Peter Lam (PL), Dr. Per F. Peterson (PFP), Mr. Rick D. McWhorter (RDM), and Mr. R. Ferman Wardell (RFW), Fact-Finding Meeting (FF), Quarter(Q), Public Meeting (PM), Review (Rev).

Open Items List

<u>Item</u>	<u>Re:</u>	<u>Action Taken/Next Action</u>
CO-10	Mispositioning Errors	Next Action 12/19 FF
CO-11	Operator Concerns & Issues	Next Action 12/19 FF
CM-13	Maint. Dept. Performance Measures	Next Action 12/19 FF
EN-20	Observe Plant Health Committee Mags.	Next Action 8/19 or 11/19 FF
EP-3	Emergency Preparedness During Decomm. (Meet with new OES Manager PFP: clarify re post-cessation of Ops changing ERO response capabilities)	Next Action 7/19 or 8/19 FF Invite for 10/19 PM
RA-5	Non Seismic PRA Program	Next Action 9/19 FF
RA-6	Seismic Fragility Analysis	Next Action 2Q20 FF
NS-5	Monitor NSOC Mtgs.	Next Action 11/19 FF
NS-9	Monitor INPO AFIs	Next Action 11/19 FF
RP-3	Review Outage RP Performance	Next Action 12/19 FF
RP-12	Review Radioactivity Release Reports	Next Action 7/19 FF
NF-9	Nuclear Fuel Performance	Next Action 12/19 FF
SE-39	Concrete Intake Structures	Next Action 12/19 FF
SE-42	Safety System Function Failure	Next Action 2Q20 FF
SE-52	Fuel Handling Equipment	Next Action 12/19 FF & Close
SG-1	Steam Generators	Next Action 12/19 FF
OM-3	Outage Coordination Center	Next Action 11/19 FF
OM-4	Outage Safety Plan	Next Action 9/19 FF
OM-5	Foreign Material Exclusion Training	Next Action 7/19 FF
SF-1	ISFSI Operations	Next Action 2Q20
SF-2	Cask/Pool Storage Relative Risk	Next Action 2Q20
SF-3	Seismic Adequacy of ISFSI	Next Action 2Q20
LD-3	Non Licensed Training Programs	Next Action 7/19 FF
BDB-6	FLEX Status - Training & Implementation	Next Action 9/19 or 11/19 FF
2/16 PM-10	4kV Solid-state Relays	Next Action 12/19 FF
10/18 PM-7	Employee Retention Program - Tranche 2	Next Action 9/19 FF & 10/19 PM
10/18 PM-8	Spent Fuel Movement Timing Study	Move to DEC-1
2/19 PM-1	RCP Turning Vanes Bolts	Next Action 7/19 FF
2/19 PM-2	Expenditures re Fuel Removal Study Moved/Merged -	Next Action Close
2/19 PM-3	Nos. of Assemblies in SFPs per B.5.b	Next Action 8/19 FF
2/19 PM-4	Engineering Excellence Plan	Move to EN Category
2/19 PM-9	Meeting with County OES Manager	Next Action 7/19 FF & 10/19 PM
2/19 PM-11	Performance Indicators re Internally Initiated vs. Externally Initiated Scrams	Move to Grid Reliability & Close
2/19 PM-13	Post-Shutdown Restated Charter	Move to 10/18 PM-15 & Close

DCPP Systems/Components Periodic Review

Residual Heat Removal System	Schedule for 12/19 FF
Trending Analysis	Schedule for 12/19 FF

During review of the Open Items List Mr. Baldwin was recognized and reported in response to Item 2/19 PM-8 that the new DCPD Fire Station was seismically designed to the criteria required by the analyses of the Hosgri Fault, an offshore seismic fault zone, plus an additional 25% margin and he characterized the Fire Station as a very robust and substantial structure. Dr. Peterson observed during review of the Open Items List on his last visit to DCPD the Vehicle Inspection Station had been removed and the process used to inspect vehicles has been simplified and changed, however, access remains quick for firefighting equipment.

C. Nomination and Election of Chair and Vice Chair for the July 1, 2019 - June 30, 2020 Term. On a motion made by Dr. Budnitz, seconded by Dr. Peterson, the Committee elected Dr. Lam 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, 2019 through June 30, 2020.

In response to an inquiry from Dr. Gene Nelson, a representative for Californians for Green Nuclear Power, Dr. Budnitz stated that the next appointment of a Committee member by the California Attorney General was pending and there were two other candidates, beside Dr. Budnitz, recommended as qualified following the CPUC nomination process and receipt of public comment therefore it would be inappropriate for Dr. Budnitz to accept nomination for the position of DCISC Chair or Vice-Chair while this matter is pending before the Attorney General.

VI COMMITTEE MEMBER REPORTS AND DISCUSSION

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

Dr. Lam reported that with Consultant McWhorter and Mr. Rathie he conducted an open house event in Avila Beach, California on April 17, 2019 to receive comments and communications from the public concerning the possible revision of the Committee's Restated Charter to provide for a post-shutdown role for the Committee. The open house was attended by five members of the public including the facilitator and three members of the Diablo Canyon Decommissioning Engagement Panel (DCDEP) a community group formed by PG&E to foster an open and transparent dialogue between members of the local community and PG&E on topics regarding the decommissioning of DCPD. **Mr. McWhorter remarked the open house provided a productive opportunity for the public to have at times an intense discussion with a member of the DCISC and to understand and assist in defining the future relationship between the DCISC and the DCDEP which remains an important issue for both bodies. Dr. Peterson agreed that these issues merit further discussion by the DCISC as part of the DCISC's broader obligation to conduct public outreach in the local community. Dr. Peterson commented that, given the low public turnout he suggested that the Committee should at this time defer conducting any more open houses.**

Dr. Budnitz reported that in response to an invitation extended by the DCDEP he attended and made an informational presentation during the DCDEP's regularly scheduled meeting held on March 13, 2019. His remarks concerned the role of the DCISC and issues regarding the management and storage of spent nuclear fuel. Dr. Budnitz stated he believed the meeting was an effective session and the meeting was well attended by the public. Dr. Budnitz further reported that on May 15, 2019 he participated in a telephone conversation with Mr. Greg

Haas, District Representative for U.S. Representative Hon. Salud Carbajal, and Mr. Haas also attended the March 13, 2019 meeting of the DCDEP and was following up on some questions from the Congressman concerning the recent refueling outage and the interaction between the DCISC and the DCDEP including the matter of a possible continuing post-shutdown role for the DCISC. Finally, Dr. Budnitz reported that during the past week he received a telephone call from Deputy Attorney General Megan Hey inquiring about the DCISC's current activities and future plans.

The Members turned to the matter of confirming and scheduling public meetings of the DCISC. Public meetings are now scheduled for October 23-24, 2019, February 12-13 and June 16-17, 2020 (subsequently, after this public meeting, the date was changed to June 24-25, 2020). The Members and Consultants then scheduled a future public meeting of the Committee for September 30-October 1, 2020. Due to a refueling outage scheduled for October 4 through November 13, 2019, the Committee determined not to conduct a tour with members of the public in conjunction with its October 2019 public meeting.

Fact-finding visits were confirmed and scheduled as follows²:

[2019] July 22-23 PFP/RDM; August 21-22 PL/RFW; September 11-12 RJB/RDM; November 6-7 RJB/RFW; December 10-11 PFP/RDM; and

[2020] January 29-30 PL/RFW; March 17-18 RJB/RDM; April 15-16 PL/RFW; May 12-13 PFP/RDM; July -td- PFP/RDM; August 19-20 PL/RDM; September 22-23 RJB/RFW.

The Members and Consultants observed that the fact-finding schedule is subject to change based on scheduled or emergent activities at DCP and Mr. Garcia stated he would provide confirmation of the scheduled dates.

B. Documents Provided to the Committee: Mr. Rathie directed the Committee's attention to the list of documents received since its last public meeting in February 2019. A copy of the list was included with the public agenda packet for this meeting.

VI INFORMATION ITEMS BEFORE THE COMMITTEE

The Chair requested Mr. Tom Baldwin, Director of Nuclear Site Services to introduce the first of the informational presentations requested by the Committee for this public meeting. Mr. Baldwin introduced DCP Director of Nuclear Work Management Mr. Dennis Petersen. Mr. Baldwin reported Mr. Petersen is a licensed Senior Reactor Operator with more than 35 years' experience at DCP where he has held a number of leadership positions in the Operations, Quality Verification, Training, and Work Management organizations.

² Abbreviations used: Robert J. Budnitz (RJB); Peter Lam (PL); Richard D. McWhorter (RDM); Per F. Peterson (PFP); R. Ferman Wardell (RFW)

Performance During the 21st Refueling Outage for Unit 1 (1R21) Including Key Activities, Performance Indicators, Results Achieved, Fuel and Steam Generator Inspection Results, Unexpected Equipment Issues and Open Items.

Mr. Petersen stated refueling outage 1R21 commenced on February 10, 2019 at midnight and concluded on March 18, 2019 at 10:50 a.m. Mr. Petersen described the key activities during the outage including:

- Containment Integrated Leak Rate Test
- Residual Heat Removal line weld overlay
- Reactor Coolant Pump 1-1 rotor and stator replacement
- Reactor Coolant Pump 1-2 seal replacement
- Main Feedwater Pump 1-1 overhaul
- Main Feedwater Pump 1-2 turbine overhaul
- Service Cooling Water inlet piping liner installation
- 480V ventilation seismic gap modification
- Vital 480V bus G breaker replacement

Concerning outage safety and defense-in-depth strategies Mr. Petersen reported defense-in-depth levels were maintained to ensure key safety functions were satisfied. High-risk and infrequently performed tests and evolutions included:

- Initial drain to 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 over the reactor core
- Integrated Leak Rate Test

In response to Consultant Wardell's inquiry Mr. Peterson reported the vital bus transfer and integrated safeguards testing as well as the initial drain down were reviewed prior to the outage in of the Simulator Facility (a full-scale mock-up of the Unit 1 Control Room). In response to Consultant Wardell's further inquiry Mr. Petersen reported that initial criticality is tested by the operating crew during normal training some weeks prior to an outage and he observed differences are very small in the reactor core from one refueling outage to the next.

Mr. Petersen reviewed performance metrics during 1R21 as follows:

<u>Performance Metric</u>	<u>Goal</u>	<u>Actual</u>
Serious Near Hit events	0	0
Nuclear Safety Events	0	0
Site Clock resets	0	0

<u>Performance Metric Cont.d)</u>	<u>Goal</u>	<u>Actual</u>
Outage duration (Days)	40	36.5
ALARA – (As Low As Reasonably Achievable (Person Rem))	27	30.2
Power Ascension (Days)	5	4.75

In response to inquiries from the Committee concerning DCPD not having met the ALARA goal Mr. Petersen reported the 30.2 person rem dose was accumulated through thousands of very low doses spread amongst perhaps five hundred to one thousand individuals working on the site during the outage. Dr. Budnitz observed that flying in an aircraft on a round trip across the country a person accumulates about a 5 millirem dose and Dr. Peterson observed that aviation workers are not monitored in the way workers at a nuclear power plant are monitored. Dr. Budnitz observed that on his visits to the plant he has observed that great care is taken when personnel are required to enter radiologically controlled areas. Mr. Petersen reported that some of the total dose was accumulated due to emergent work performed during 1R21. **In response to Consultant Wardell's inquiry Mr. Petersen stated he would need to check and report back as to the highest dose received by any individual and the spectra of the dose received by workers during 1R21.**

Dr. Peterson remarked the metric for achieving 30 days of post outage online operation is no longer as relevant as it once was due in part to the use of digital feedwater control. Mr. Petersen reported Unit 1 has been reliably at full power following the end of 1R21. **Dr. Peterson stated that the topic of the types of tasks that generate the highest dose would be an appropriate topic for the DCISC during a future fact-finding.** Mr. Peterson observed those activities would likely include reactor disassembly and reassembly, fuel handling, work on reactor coolant pumps and some corrective maintenance tasks such as leak repair and boric acid cleanup and valve maintenance. Mr. Petersen, in response to Dr. Budnitz' inquiry, reported that power ascension following 1R21 was somewhat faster than expected due to time intentionally allowed in the schedule for emergent scope work for saltwater leakage in the condensers and during 1R21 there was no significant scope expansion or emergent work due to condenser leakage.

Mr. Petersen reviewed the results achieved during 1R21 as follows:

- Integrated Leak Rate Test (ILRT)
- Residual Heat Removal (RHR) suction line Structural Weld Overlay
- Zero significant Human Performance Events
- Improved Outage Scope Review Team
- Line ownership of ALARA continues to be a strength
- Safely completed emergent scope on Main Feedwater Pump 1-1

In response to Consultant McWhorter's inquiry concerning when a foreign material exclusion (FME) issue becomes a human performance issue Mr. Petersen reported that not all FME events are human performance-related but he remarked he would have to review plant procedures to provide a response to Mr. McWhorter's query, however, he remarked that human-related FME events are very rare and the Station-level threshold for same is quite

high and generally involves significant damage. Mr. Petersen confirmed that the work on the reactor coolant pump (RCP) seals was planned during 1R21 and was not therefore considered emergent work or work performed as part of a preventive maintenance interval. In response to Dr. Peterson's inquiry as to whether RCP seal maintenance is included on the outage critical path Mr. Petersen stated the work was not on the critical path. In response to Consultant McWhorter's query Mr. Petersen reported Department-level events during refueling outages have been declining in number and DCPD uses the same threshold for such events as other nuclear power plants. Department-level events during 1R21 were on par with past outages with approximately two such events per outage.

Mr. Petersen reviewed fuel and steam generator inspection results as follows:

- No fuel defects
- No significant fuel findings
- No Steam Generator inspections were scheduled, nor were they required

Mr. Petersen reported that during 1R21 DCPD brought in 959 temporary workers to assist in outage related work activities. He then identified follow-up items from 1R21 as including:

- Fuel handling equipment reliability
- Timely and accurate schedule updates
- Translating procedures into schedule logic
- Injury prevention

Concerning the item on translating procedures into schedule logic, Mr. Petersen reported this item stems from a difference of opinion during 1R21 between the Outage and Operations Departments as to performing activities on the outage schedule in parallel or in sequence. Mr. Petersen commented that operators in the Control Room remain in command of the unit and have the absolute discretion concerning such matters. He stated that Operations has lost some veteran operators and operator experience levels are somewhat less than in past years and this lower comfort level, together with some concern about the RCP seals was part of the reason for the issue with procedure scheduling. Mr. Petersen reported all of the above items are documented using SAP software to track corrective actions within the Corrective Action Program.

Dr. Gene Nelson of the group Californians for Green Nuclear Power was recognized. Dr. Nelson contrasted the experience of DCPD's replacement of its steam generators with that of the San Onofre Nuclear Generating Station (SONGS) in southern California in replacing the SONGS' steam generators. He remarked the DCPD replacement steam generators used materials containing corrosion resistant alloys and this resulted in DCPD not having to inspect the Unit 1 steam generators during 1R21. Dr. Peterson remarked that there is little concern that DCPD's steam generators will not be able to give good service during the remainder of the plant's operating life.

Ms. Sherry Lewis of the group San Luis Obispo Mothers for Peace was recognized. Ms. Lewis inquired concerning the dose received by workers during 1R21 and stated she would be interested in learning the highest dose received by any individual during 1R21. Dr. Budnitz replied the NRC has an individual dose limit which if it were to be exceeded or even approached would have been reported and such a report would have significant consequences for PG&E as

the DCPD licensee. Dr. Budnitz discussed with Ms. Lewis the incidence of dose during flight in an aircraft and remarked that it is important to monitor both individual and cumulative exposures. In response to Ms. Lewis' comment Dr. Budnitz confirmed that in accordance with NRC regulations a preoperational baseline study of radio-nuclides around the site of DCPD was performed several years prior to the plant commencing operation so these data could be used during and following nuclear operations at the site. Ms. Lewis stated her understanding that concerning the accident in 2011 to the Fukushima Dai-ichi Nuclear Power Plant in Japan, doctors are not allowed to equate illness with radiation.

A short break followed Mr. Petersen's presentation.

Mr. Baldwin introduced Mr. Hossein Hamzehee DCPD Manager of Regulatory and reported Mr. Hamzehee has more than 30 years' experience in the nuclear industry and holds Master of Science Degrees in Nuclear and Mechanical Engineering and Mr. Hamzehee brings extensive experience as an NRC staff member to his role at DCPD including at the level of an NRC Branch Chief.

Update on the Status of NRC Performance Indicators, Licensee Event Reports, NRC Notices of Violation and Issues Raised by NRC Resident Inspectors and Major Regulatory Issues (Open Compliance Issues and License Action Requests).

Mr. Hamzehee reported DCPD is rigorously inspected by the NRC and remains committed to the highest standard of safety. In response to Dr. Peterson's remark, Mr. Hamzehee confirmed that DCPD is also inspected by the DCISC, the Institute of Nuclear Power Operators (INPO), as well as by its internal Nuclear Safety Oversight Committee (NSOC) and Plant Staff Review Committee (PSRC). Mr. Hamzehee commented that the NRC focuses principally upon regulatory requirements. He confirmed, in response to Dr. Peterson's observation, the plant is also periodically inspected by representatives of American Nuclear Insurers. Mr. Hamzehee remarked that it was important in the nuclear context to have independent and redundant oversight and inspection activities to improve safety and bring differing perspectives to performance and this oversight has made the nuclear industry one of the safest of all U.S. industries. He also cited the role of the Electric Power Research Institute in ensuring reliability and availability.

Mr. Hamzehee stated in his presentation he would provide an overview of DCPD performance, based on NRC's Performance Indicators, since the last meeting of the DCISC for the period February 2019 through May 2019. He remarked his presentation would cover approximately four months of NRC inspections involving ~1,800 hours of inspection time. During this DCPD met Green performance expectations for all NRC performance indicators. Three violations of very low safety significance were issued by the NRC since the last DCISC meeting in February 2019. Mr. Hamzehee reviewed and briefly discussed some of the 16 performance indicators reviewed by the NRC, concerning which data is collected daily and all of which are presently within Green health status as follows.

- Unplanned Scrams per 7000 Critical Hrs.
- Unplanned Power Changes per 7000 Critical Hrs.
- Unplanned Scrams with Complications
- Safety System Functional Failures
- Mitigating Systems Performance Index, Emergency AC Power System

- Mitigating Systems Performance Index, High Pressure Injection System
- Mitigating Systems Performance Index, Heat Removal System
- Mitigating Systems Performance Index, Residual Heat Removal System
- Mitigating Systems Performance Index, Cooling Water Systems
- Reactor Coolant System Activity
- Reactor Coolant System Leakage
- Drill/Exercise Performance
- ERO Drill Participation
- Alert & Notification System
- Occupational Exposure Control Effectiveness
- Radiological Effluent Occurrence

In response to Consultant McWhorter's inquiry Mr. Hamzehee stated that a significant percentage of all U.S. nuclear power plants also report meeting all NRC Performance Indicators and failure to do results in augmented and enhanced inspection activity by the NRC.

Mr. Hamzehee reported one Licensee Event Report (LER) was issued during February 2019 through May 2019. This LER was Supplement 1 to LER 2018-001 and was issued in April 2019 regarding the Unit 2 automatic reactor trip with Auxiliary Feedwater System (AFW) actuation that occurred on December 1, 2018 due to load rejection from a 500kV line. As discussed by Mr. Hamzehee at the previous DCISC public meeting in February 2019, the reactor trip occurred due to the automatic operation of offsite electrical grid equipment designed to ensure grid reliability. The supplement to the initial LER, which was issued in January 2019 within 60 days of the event, was issued in April 2019 to document the final cause and corrective action information associated with the event. This information was still considered preliminary when the original LER was issued.

Mr. Hamzehee described the safety significance characterizations used for the performance indicators as either Green (very low), White (low to moderate) Yellow (substantial) or Red (high). Green non cited violations (NCVs) indicate very low safety significance, with no impact to public health and safety.

Mr. Hamzehee report on NRC Violations February 2019– May 2019 and stated there were three violations, two were NCVs and one was as Finding issued as follows:

- Non Cited Violation (Green) - Corrective actions associated with a 2013 refueling outage reactor coolant pump seal back-filling issues which were not adequately applied to procedures for online control of drain tank level that could lead to seal damage. The same event occurred in January 2018 as a result of a pressure imbalance interaction between the Pressurizer Relief Tank and the Reactor Coolant Drain Tank. No cross-cutting aspect was assigned. Mr. Hamzehee reported the NRC assigns cross-cutting aspects when the deficient performance is reflective of current performance.

- Non Cited Violation (Green) - in March 2019 for inadvertent Spray Additive Tank leak with sodium peroxide caused by incorrect maintenance performed on a level transmitter. This event caused the Department-level clock to reset and station-wide communication was issued for this human performance event. (Cross-cutting aspect H.12 –Avoid Complacency.)
- Finding (Green) - associated with an issue with the Unit 1 Polar Crane variable frequency drive motor which was not promptly corrected. The Polar Crane is used during refueling to lift, remove, and replace the reactor vessel head. In response to Dr. Lam's inquiry Mr. Hamzehee stated the failure of the variable drive motor resulted in the Polar Crane remaining in place for approximately six hours with the vessel head suspended while a cause evaluation was performed but Mr. Hamzehee reported the vessel head was not in danger of being dropped as a result of the failure of the variable frequency drive motor. He reported this Finding represented a failure to apply lessons learned previously. Mr. Baldwin stated the identified vulnerability was not formalized into operating instructions for the cranes and he confirmed that this particular control system could not fail in such a way that the vessel head would drop. **Dr. Peterson observed the variable frequency drive motor is within the design basis for the crane and was most likely a modification made at some point and this would be a potential topic for DCISC review during fact-finding.** Cross-cutting aspect assigned as P.3 -Resolution.

Mr. Hamzehee stated DCP's overall performance is Green with respect to NRC Performance Indicators. He reviewed inspection activities since the last meeting of the DCISC in February as follows:

- 2018 Annual Assessment Letter (2018-006, 3/4/2019)
- 1st Quarter 2019 Integrated Inspection Report (2019-001, 05/13/2019)

In response to Consultant McWhorter's observation concerning the five NCVs received by DCP in the past six months Mr. Hamzehee replied that this was not an unusually high number of NCVs or outside the distribution received by other nuclear plants and until 2018, DCP was one of the lowest plants in terms of its receipt of NCVs in NRC Region IV.

Mr. Hamzehee stated any time a nuclear power plant seeks to deviate from its licensing basis documentation, the NRC's prior approval is required. One mechanism used to obtain that approval is by submitting a license amendment request (LAR). He then provided a high-level review concerning the status of pending LARs submitted in the last three months for DCP as follows:

- 90-Minute ERO Staff Augmentation: a LAR was submitted to NRC in September 2018. Responses to NRC requests for additional information were completed in May 2019. NRC approval of LAR is expected by September 2019. If approved this would increase the staff augmentation time from 60 to 90 minutes and thereby increase the number of responders available to the Emergency Response Organization by allowing employees living farther from DCP to serve as qualified responders. Dr. Peterson stated this LAR required a thorough

assessment of workforce availability and he stated he hoped the NRC would approve this LAR. Dr. Lam observed that rather than relaxing regulatory requirements this LAR would effectively increase the number of qualified emergency response personnel and Dr. Lam observed this is important as DCPD is a unique site in that it occupies a very expansive site.

➤ Intake Reclassification: a LAR was submitted to NRC in February 2019. NRC approval of LAR is expected by February 2020. The reason for submitting this LAR is based upon the size of the plant site including the Owner Controlled Area and the Protected Area and the goal is to make the most effective use of plant security personnel. As this is a security-related matter, Mr. Hamzehee stated he could not explore with the DCISC many of the details of the LAR but he confirmed that access to the Intake Structure would continue to be monitored. Dr. Peterson reported the DCISC confines its review of security-related issues to ensuring that physical security measures do not result in a degradation of safety and he stated this LAR appears not to have such an effect. Mr. Hamzehee agreed and reported the interface between security and safety is also reviewed by the plant to ensure there are no unintended consequences of proposed changes. In response to Consultant Wardell's inquiry, Mr. Hamzehee stated that in connection with this LAR no direct credit was taken for the FLEX initiative.

➤ Full Spectrum Loss of Coolant Accident (LOCA): a LAR was submitted to NRC in December 2018. NRC approval of the LAR is expected by February 2020. Mr. Hamzehee stated the NRC previously identified generic issues with thermal conductivity degradation of nuclear fuel under accident conditions and Westinghouse has developed a methodology in response for a full spectrum LOCA which has been endorsed by the NRC. He reported if approved this would provide a more up to date methodology for LOCAs of all sizes and would assist DCPD in addressing the generic issue regarding thermal conductivity degradation. If this LAR is approved DCPD would be one of the first plants in the nation to apply the new methodology.

Mr. Hamzehee reviewed other notable regulatory items as follows:

➤ Open-Phase Condition: based on a 2012 open-phase occurrence at the Byron Nuclear Generating Station in Illinois. U.S. nuclear plants have installed instrumentation which monitors, detects and protects against an open-phase condition in switchyard/offsite power. The NRC and the industry are evaluating the use of risk insights to allow instrumentation in monitoring only mode rather than enabling the trip function. DCPD has installed a monitoring device for both units but Mr. Hamzehee stated the technology is not mature enough to enable the trip function, as to do so could place the plant in an unnecessary condition in the event an open-phase condition did not exist. He reported DCPD is continuing to work with the industry to develop and apply a risk-informed approach while retaining the monitoring function which would allow the operators to manually trip the reactor in the event of a true open-phase condition.

➤ Tornado Missile Risk Evaluator: Mr. Hamzehee reported the industry is developing a methodology that allows a risk-informed approach to evaluate tornado missile hazards and effects on plant structures and equipment. The nuclear industry is also discussing a simplified approach for adopting the use of 10 CFR 50.59 rather than preparing a LAR. He remarked that there may be a significant number of power plants in the U.S. that are outside their licensing basis for tornado missile risk with plants located in the southern part of the U.S. being at the most risk. Dr. Budnitz observed the tornado risk within the first ten or twenty kilometers inland from the coast is very low. Mr. Hamzehee agreed and stated the probability of having a safety-related system impacted by a tornado is approximately 10^{-7} and he described this issue for DCPD as being mainly a compliance issue and not a safety issue. Dr. Budnitz stated there is an American National Standard (ANS) and American Society of Mechanical Engineers (ASME) standard for performing a probabilistic risk assessment (PRA) of tornadoes to produce a risk-informed analysis. Dr. Budnitz observed the ANS/ASME standard is in the process now of being substantially upgraded through the work of a committee which Dr. Budnitz chairs. The new standard should be issued in the next six to nine months and is expected to put into place a standard methodology for doing the analysis. Dr. Budnitz stated that while the risks are low, they are not zero.

In response to Consultant Wardell's request, Mr. Hamzehee briefly discussed the triennial Force-on-Force NRC Inspection and remarked this inspection is very resource intensive and generally results in a number of minor violations. The last such inspection at DCPD did not identify any violations and the NRC concluded the DCPD Security organization and the force-on-force response inspection team are very strong and effective.

Ms. Sherry Lewis of Mothers for Peace was recognized. Ms. Lewis stated she was concerned about Mr. Hamzehee's description of the reactor head being suspended for six hours while the Polar Crane was inspected and the possibility of a seismic event during that time. Dr. Budnitz replied that the ground motion from an earthquake would propagate upward and as there is considerable seismic activity in the region of DCPD this seismic motion has been monitored and analyzed for in-structure response including the motion affecting the reactor head to assist in understanding and calibrating how that motion amplifies or its frequency changes. Dr. Budnitz stated he has reviewed that analysis. Dr. Peterson confirmed that the Polar and Spent Fuel Pool Cranes are analyzed for seismic response and to assure that a substantial margin is available, including for those times when they are carrying a load, to ensure that the load will not fall. Drs. Budnitz and Peterson replied that the six hours when the head was suspended was a relatively brief period. Dr. Lam agreed but remarked that he also shared Ms. Lewis' concern.

The Chair thanked Mr. Hamzehee for his presentation.

Mr. Baldwin introduced DCPD Corrective Action Supervisor Mr. Shawn LaForce and reported Mr. La Force is an Electrical Engineer with more than 25 years' experience at DCPD including in the Fire Protection, Engineering, Regulatory Compliance, and Telecommunication organizations.

Update on the Status of the Performance Improvement Program, the Corrective Action Program and the Results Being Achieved.

Mr. La Force described the performance improvement model as consisting of monitoring performance monitoring and finding problems in the field, review of condition reports which are documented as Notifications, use of the Corrective Action Program to identify, plan and identify solutions followed by implementation of the solution and continuance of performance monitoring. He described the elements of the Performance Improvement Program as consisting of:

- Corrective Action Program (CAP)
- Self-Assessment
- Benchmarking
- Use of Operating Experience –incoming and outgoing
- Performance Monitoring and Trending
- Use of Human Performance Tools
- Field Engagement and Coaching (Observations)

Mr. La Force stated the CAP is directed at finding and fixing problems and to improving the plant's safety culture. He reported DCPD is among the most prolific writers of Notifications in the industry with 22,000 to 25,000 Notifications written each year. Once in the CAP, issues are assessed for risk and evaluated and the resulting corrective and preventive actions are tracked to completion with a goal of having completion achieved within 180 days. Notification writers are notified when actions are complete and the plant has implemented a satisfaction survey. Mr. La Force reported some issues for which a closure notice was issued have been subsequently reopened for additional investigation based on the response of the person who initiated the Notification. He stated industry efforts at simplification have been implemented in the effort to reduce the program's burden. After an issue is submitted to the CAP it is screened by a panel including representatives of Engineering, Operations, Maintenance and Performance Improvement organizations and a significance level and an analysis type, as well as an issue owner, are assigned. Senior plant leadership independently review issues adverse to quality on a weekly basis to ensure the appropriate assignment of significance levels and cause evaluation. The Quality Verification organization and the NRC resident inspectors also review condition reports. Mr. La Force confirmed that as part of the process the work control shift foreman reviews Notifications shortly before they are entered into the CAP for operability, safety-related and extent of condition issues to determine whether the Notification may have application to the other DCPD unit.

Mr. La Force described the cause evaluation determination levels assigned by the Performance Improvement Program in accordance with the significance level of each issue, with the most frequent cause evaluation for approximately 80% of problem resolution being by a Work Group Evaluation process. Approximately 20-30 issues each year are reviewed at the level of Cause Evaluation, and between one and three issues every year receive the highest level of evaluation through a Root Cause Evaluation.

Mr. La Force described the purpose of self-assessments as intended to provide a structured methodology for revealing the activities and performance of an organization and to identify performance gaps against internal and external standards. Self-assessments strategically target known or potential performance issues for further investigation. During 2018 DCPD performed 59 formal self-assessments but Mr. La Force reported that many other self-assessment activities take place each year on an informal basis. He described Benchmarking as a tool to provide self-awareness of performance when measured against the performance and best practices of others in and outside of the nuclear industry. Mr. La Force reported DCPD benchmarks against other nuclear facilities, PG&E's internal lines of business, and within comparable industries such as the petroleum and aviation industries. There were 54 formal benchmarking activities by DCPD during 2018. To date, for 2019 Mr. La Force reported there are 142 conditional reports written that are tracking self-assessments and benchmarking.

Mr. La Force briefly described the Operating Experience Program as a system established by INPO to track events, issues and lessons learned from other stations. The Performance Improvement organization has one person working full-time on reviewing and evaluating operating experience reports and, when appropriate, documenting operating experience in the Corrective Action Program. For 2018 there were 882 operating experience events reviewed and determined to be potentially applicable to DCPD.

Mr. La Force reported performance monitoring and trending involves the review and use of CAP data, observations, safety and human performance events, self-assessments, benchmarking and use of safety culture data as well as feedback received from the DCISC, the Nuclear Safety Oversight Committee (NSOC) a safety review committee internal to DCPD, INPO, and the NRC and the observations of the behaviors of workers by leadership. Performance Improvement Coordinators are assigned to review these data to identify trends. Mr. La Force stated recently DCPD has begun performing rapid trend identification and issue response during refueling outages.

Mr. La Force displayed a photo and he described the use of human performance tools by personnel working in the plant. Dr. Peterson remarked that the use of electronic tablets which could photograph, capture and record work in the field offers significant opportunities to reduce the potential for human error and improve cause evaluation and he observed the use of electronic tools with those capabilities is much more prevalent in other industries than in the nuclear industry. Mr. La Force agreed with Dr. Peterson and he reported DCPD began five years ago to increase its use of electronic work packages but has not progressed to the levels described by Dr. Peterson.

Mr. La Force discussed field engagement and coaching efforts which he reported involve getting station leaders into the workplace in a positive effort to provide immediate coaching, feedback and reinforcement. Plant leadership attend the pre-job morning briefings, known as tail boards, and make observations in the field when trends are identified to evaluate whether or not a systemic problem exists. Observation review meetings are conducted with department managers,

supervisors and plant staff and data is collected and reviewed by the Performance Improvement organization.

During 2018 DCPD conducted 59 formal self-assessments, 54 formal benchmarks, 882 operating experience reviews and shared 85 issues within the industry and with INPO through the Performance Improvement organization's efforts. Mr. La Force displayed a graph showing the decline in the number of conditions adverse to quality which has been reduced from 400 items as of May 17, 2017 to approximately 260 items as of March 2019 and he reported this downward trend continues. He confirmed Dr. Peterson's observation that there was some correlation of these data with scheduled refueling outages.

Mr. La Force reported human performance events have declined from approximately 90 in 2012, to six in 2017, three in 2018 and two to date in 2019 and he commented that while the industry is experiencing a decline in human performance events DCPD continues to do better than the industry in this metric which he attributed to DCPD's early and consistent use of human performance tools. In response to Consultant McWhorter's inquiry Mr. La Force stated the definition of a Station-level event has not changed and DCPD has gone 1,754 days to date since recording its last Station-level event. In response to Consultant Wardell's query Mr. LaForce stated that the decline in Notifications from approximately 25,000 over the last few years to 22,000 forecasted for 2019 was the result of some large scale projects either completing or being cancelled such as the License Basis Verification Project which was completed and the License Renewal Project which was cancelled. He reported the DCPD Nuclear Safety Culture Monitoring Panel reviewed this issue and did not find that a chilled environment existed at DCPD for reporting problems. In response to Dr. Budnitz' comment Mr. La Force confirmed that DCPD remains today in the top quartile within the nuclear industry for human performance in accordance with INPO's ranking.

In concluding his presentation Mr. La Force summarized and observed the Performance Improvement Program at Diablo Canyon is effective as demonstrated by the following:

- Corrective Action Program inventory is decreasing
- The Performance Improvement Program's effectiveness
- Corrective Action Program inventory is decreasing
- Process simplification aligns with industry efforts
- Self-assessments ensure alignment with established guidance
- Benchmarking ensures performance is seen in relation to others
- Human performance tools effectively reduce errors
- Number of events continues to improve
- Operating experience is reviewed, incorporated and shared, thus improving safety
- Trend analyses enable early identification of changes in performance
- Field engagement ensures leaders are aware of performance and promotes real-time feedback

The Committee Members thanked Mr. La Force for a very informative presentation.

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

The Chair requested Consultant Wardell to report on a fact-finding visit to DCP. Mr. Wardell reported on the March 18-19, 2019 fact-finding visit to DCP with Dr. Budnitz. Mr. Wardell stated activities conducted and topics reviewed with PG&E during that visit included the following:

- Meeting with NRC Senior Resident Inspector - Mr. Wardell reported the topics discussed were topics both the DCISC and the NRC resident inspection team were currently investigating.
- Meeting with DCP Officer - the DCISC fact-finding team met with PG&E Senior Vice President, Generation, and Chief Nuclear Officer Mr. Jim Welsch. Mr. Welsch reported that as of March 2019 he has joined the Diablo Canyon Decommissioning Engagement Panel (DCDEP) and the next two public meetings of the DCDEP will take up the matter of a risk analysis of using trucks as compared to barges for moving spent fuel when the opportunity to transport spent fuel offsite is available. The DCISC representatives also discussed with Mr. Welsch plans for issuing a request for proposals for a new dry cask storage system which may be solicited later in 2019. The meeting discussion also covered the December 1, 2018, Unit 2 reactor trip which will be the topic of a presentation later during this public meeting.
- FLEX³ Equipment Safety-Related Documents - Mr. Wardell reported the Corrective Action Review Board (CARB) studied whether FLEX equipment should be considered safety-related and the result of that study was that FLEX is not considered officially safety-related because FLEX is not subject to the normal NRC design basis requirements. However, Mr. Wardell reported that although not safety-related, FLEX equipment is high quality commercial grade equipment and is generally seismically designed and FLEX equipment is stored so as to be able to provide capable components in an emergency situation.
- Long Term Seismic Program Update - Dr. Budnitz reported since receipt of its license for operations from the NRC, as part of that license, DCP has been required to have a Long Term Seismic Program (LTSP). Dr. Budnitz observed DCP is unique among U.S. nuclear plants in this regard. The LTSP is an ongoing effort to continue to understand the seismic environment at the site which is the highest seismic environment for any nuclear power plant in the U.S. To meet this licensing commitment PG&E has deployed instruments in the area and, as required by the NRC, created a group which continues to analyze earthquakes and this group has included

³ FLEX is not an acronym but describes a strategy developed by the nuclear industry to provide diverse and flexible coping strategies to address the loss of safety-related systems due to beyond design basis events.

what Dr. Budnitz described as some of the top experts in the world in this field including Drs. Lloyd Cluff and Norman Abrahamson, both members of the National Academy of Engineering. Dr. Budnitz reported that he has reviewed the work of the LTSP as well as that of the Independent Peer Review Panel, established by the California Public Utilities Commission (CPUC) to review seismic studies of the plant site. He remarked these studies involve developing an understanding of the energy propagation from an earthquake to the plant site and then into the plant structures, systems, and components to understand how the plant as a whole may be expected to respond in the event of a large seismic event. These efforts require an understanding of accident sequences in context of overall seismic risk. Dr. Budnitz reported the fact-finding team found the LTSP continues to be an excellent program which is benchmarked by many other nuclear plants both in the nation and internationally. Dr. Budnitz reported the DCISC has learned PG&E is committed to funding the LTSP for so long as there are any hazardous activities at the site and to provide funding levels in excess of what is required by the NRC.

- Review 1R21 Performance - Mr. Wardell reported this topic was covered earlier during this public meeting by Mr. Petersen.
- Equipment Reliability Process Update - Mr. Wardell reported this program reviews and assesses the reliability of safety-related equipment or equipment important to generation. He described the Equipment Reliability Process as employing excellent and comprehensive procedures including an Equipment Reliability Index for which all but two measures are in Green, or good standing, and two are in Yellow status, indicating work continues toward meeting expectations.
- Door Life Management Program Update - Consultant Wardell reported this program has focused on impaired fire doors and the program continues to be strong and has made good progress. The Fix It Now (FIN) response teams are now repairing more doors than the teams are replacing which means the doors can be restored to full function in less time than required for replacement and for less cost. Mr. Wardell reported the DCISC team found the Door Life Management Program to be healthy and efficient.
- Cyber Security for Digital Control Systems - Mr. Wardell reported that the cyber threat environment has increased since this program was completed and implemented in 2017 to meet NRC requirements. The DCISC's fact-finding team concentrated its review upon protection for digital control systems as those controls are part of critical digital assets. He reported DCPD is considered to be an "island" with reference to cyber connectivity as there are no direct outside electronic connections for any of the plant's safety-related systems including digital control systems. Protections have also been implemented to protect digital assets from internal threats. Dr. Budnitz remarked the ANS/ASME standards committee he chairs has established a working group of experts, including representatives from DCPD and three other nuclear sites, to develop a guidance document to perform advanced analysis of digital control systems and their vulnerabilities to cyber attack and he confirmed Mr. Wardell's observation about the threat

environment for such systems having significantly increased over time.

Upon a motion by Dr. Budnitz, seconded by Dr. Lam the March 18-19, 2019 Fact Finding Report was approved and its transmittal to PG&E authorized.

Once the Committee's fact finding reports are approved at a public meeting they are no longer considered to be in draft form and are made available in a binder for inspection by members of the public, together with information concerning the professional backgrounds of the Committee's technical consultants involved with preparation of its fact finding reports. Fact finding reports become part of DCISC's Annual Reports.

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

Mr. Rathie reported that with Dr. Budnitz and the Committee's Special Counsel for Regulatory Affairs Mr. Martin Mattes he attended a meeting held at the CPUC's San Francisco headquarters with representatives of the CPUC's Energy and Legal Affairs Divisions concerning a possible post-shutdown role for the Committee. He also reported that an Amended Scoping Memo was issued on March 7, 2019 in the 2018 Nuclear Decommissioning Cost Triennial Proceeding (NDCTP) in which issues were addressed regarding matters raised in that proceeding by the San Luis Obispo Mothers for Peace concerning examination of the Unit 1 reactor vessel during refueling and by Mr. Alex S. Karlin, a PG&E ratepayer, resident of San Luis Obispo and former NRC Administrative Law Judge concerning the Committee's review of and actions it has taken in context of a possible post-shutdown role for the DCISC. Mr. Rathie reported the DCISC has file a Motion seeking status as a party in the NDCTP principally to address the issues raised by Mr. Karlin and is presently awaiting a ruling. He reported that should the DCISC's motion be granted written testimony is scheduled to be filed with the CPUC by July 15, 2019.

Mr. Rathie reported the plant tour with members of the public scheduled later in this public meeting will also include screening of the DCISC informational video and the Committee office is now posting the complete agenda packet online at www.dcisc.org before every public meeting to give interested members of the public access to materials to be discussed at the meeting. He reported that over the last five months the Committee's website has averaged 724 unique visitors each month, that is, individual visits to the site regardless of how many pages are viewed or downloaded. These visits, in order of the number of visitors, were from the United States, France, Saudi Arabia, the Russian Federation, Britain and Japan. Activity during public meetings from persons accessing the meetings through livestreaming video is reported in each annual report.

VIII ADJOURN MORNING MEETING

The Chair adjourned the morning meeting of the DCISC at Noon.

IX RECONVENE FOR AFTERNOON MEETING

Dr. Budnitz convened the afternoon meeting of the DCISC at 1:30 P.M. and welcomed those present.

X COMMITTEE MEMBER COMMENTS

There were no comments by members at this time.

XI PUBLIC COMMENTS AND COMMUNICATIONS

Dr. Budnitz invited any member of the public who wished to address remarks to the Committee to do so at this time. Mr. Klaus Schumann of Paso Robles, California was recognized.

Mr. Schumann began his remarks with a request that the DCISC stay involved with the safety of DCPD after expiration of its operating licenses, at least until all spent fuel assemblies are removed from the spent fuel pools and placed in dry cask storage. He stated the community would benefit if the Committee were to stay in place to address safety-related issues until that time.

Mr. Schumann thanked Dr. Budnitz for the remarks Dr. Budnitz delivered at the March 13, 2019 public meeting of the DCDEP. He stated he appreciated Dr. Budnitz' acknowledgement of the dangers of nuclear waste and cesium 137 in particular. Mr. Schumann stated he agreed with Dr. Budnitz' characterization of the dangers of nuclear waste and he stated he has been involved with issues related to nuclear waste since 1995. Mr. Schumann opined it is universally accepted that dry cask storage of nuclear waste is somewhat safer than storing it in spent fuel pools although he remarked he understood Dr. Budnitz to have said that storage in spent fuel pools was also very safe. Mr. Schumann stated it was his opinion that 'all eggs in two baskets' was less safe than 'all eggs in 138 individually protected baskets.' He remarked that PG&E had previously begun the process of lowering the density of the two spent fuel pools at DCPD and since the opening of the ISFSI the density of the fuel loading in the pools has decreased by approximately 47%. Mr. Schumann urged the DCISC to take a position on the issue of spent fuel transfer as he stated the community is very much concerned by the magnitude of the density which would result from accumulating spent fuel remaining in the spent fuel pools as opposed to continuing to store fuel in dry cask. He questioned whether the DCISC would support the safest alternative or the financial interest of PG&E. He reported PG&E has proposed to stop its program of accelerated transfer and to retain spent fuel assemblies in the pools such that they will be at their full capacities by 2025 and remain at that capacity for another ten years. Mr. Schumann stated he finds this to be a dangerous proposal with potentially catastrophic consequences which would be much greater than if fuel was moved to dry cask on an expedited basis. Mr. Schumann provided a copy of the written remarks he submitted to the DCDEP on March 13, 2019 for the record of the DCISC and he directed the DCISC's particular attention to PG&E's report to the DCDEP, figure 6-2 on page 69, which shows the difference in the respective inventories in the pools with accelerated transfer compared to retaining spent fuel

in the pools through cessation of operation which, Mr. Schumann reported, would result in 94% more spent fuel assemblies in the pools than would be the case if accelerated transfer were to continue. He inquired as to the position of the DCISC on this issue and observed that in his remarks on March 13, 2019, Dr. Budnitz, speaking on his own behalf, commented that there would not be much difference whether the fuel stayed in the pools or not. Mr. Schumann inquired concerning the possibility of PG&E possibly acquiring different casks which may be able to accommodate more fuel assemblies.

Dr. Budnitz confirmed that when he spoke during the March 13, 2019 meeting of the DCDEP he was expressing his personal opinions and he could not on that occasion speak for the DCISC. He remarked that at that time the Committee had just been made aware of the proposal to divert from accelerated transfer to a system whereby spent fuel assemblies would be retained in the spent fuel pools for a longer duration than would be the case under an accelerated transfer regime. Dr. Peterson stated the DCISC is looking very carefully at the questions and issues posed by Mr. Schumann. Dr. Peterson reported that the hazards associated with the fuel assemblies in the spent fuel pools change remarkably rapidly once the reactor is shut down because those hazards are associated principally with fuel that has been freshly off-loaded from a reactor that has high decay heat generation rates, but after a period of eighteen months the hazards associated with loss of water drop off significantly as the heat generation is reduced. Drs. Peterson and Budnitz observed that due to the federal government having defaulted in commitments made in the Nuclear Waste Policy Act the responsibility for the cost for spent fuel storage reimbursed to nuclear utilities lies with federal taxpayers and not with PG&E or its ratepayers. Mr. Schumann noted those costs are estimated at \$54.7 for each spent fuel pool at DCCP. Dr. Budnitz observed in this context that part of the consideration of a schedule for fuel transfer is related to financial cost and implications of the transfer on other decommissioning-related activities. Dr. Peterson stated that providing a mix of older and younger fuel is a necessary and appropriate consideration when conducting a dry cask storage loading campaign and there are scenarios where delaying the initial filling of dry cask canisters results in all of the fuel being transferred sooner from the spent fuel pools.

Dr. Lam stated he shared Mr. Schumann's major concerns regarding accelerated transfer from wet to dry storage. Mr. Rathie remarked that were the Committee to take a position on this issue that matter would need to be on the agenda for a public meeting. Dr. Budnitz remarked the DCISC's interest is not primarily with cost but with the safety implications of the various proposed scenarios and the Committee is in the process of considering these issues and would perhaps do so at its next public meeting.

Mr. Schumann stated that as a member of the San Luis Obispo County Nuclear Waste Management Committee from 1996 and 2002 he has been involved in many of these same issues over that time. He reported local residents are specifically concerned about the 192 assemblies that at the time of the decommissioning of a unit will be placed into the spent fuel pool in an extremely hot condition where they must stay for at least seven years. Mr. Schumann opined that an accelerated transfer campaign whereby 300-450 assemblies would be resident in the pool at the time of final core discharge is the safer option as opposed to 1,100 assemblies which

would be resident in the pool in the absence of continuance of an accelerated spent fuel loading campaign. Dr. Budnitz remarked that the safety concern in either scenario described by Mr. Schumann is much greater in the first two years after core offload. Dr. Peterson commented that after the eighteen-month interval between scheduled refueling outages the decay heat generated by all the assemblies in the pool prior to full core offload is lower than the heat generated by the freshly offloaded fuel. Dr. Peterson reported PG&E is required by NRC regulation to have a minimum number of older assemblies in the pools as this increases the safety of the fuel in the pools for their present racking configuration due to the thermal inertia of the very low heat generation of the fuel assemblies in the cells adjacent to freshly offloaded fuel and this substantially changes the risk and hazard associated with loss of water from the pool. Mr. Schumann reiterated his belief that having 1,100 assemblies as opposed to 300 makes a difference in terms of safety to which Dr. Peterson replied that remarkably this is not the case. Dr. Peterson observed that as the plant performs a full core offload during every refueling outage the hazard is essentially the same.

Dr. Lam stated his belief that, as PG&E's proposal is contingent upon the assumption that PG&E can issue and receive responses to a request for proposal and successfully obtain a new license from the NRC for the new casks and contract with a selected vendor and procure the new casks within a two-year period in his opinion these are very optimistic assumptions. Dr. Budnitz commented any such proposal could only be implemented with the approval of the CPUC.

Ms. Sherry Lewis of Mothers for Peace was recognized. Ms. Lewis requested that the Committee place the matters raised in the discussion with Mr. Schumann on an agenda for a future public meeting. Ms. Lewis observed that all the fuel assemblies within a spent fuel pool are hot but some are just not as hot as others. She stated her opinion that if the space occupied by assemblies which are not as hot as others were replaced by water, that would assist in cooling the assemblies remaining in the pool which helps make a case for accelerated transfer. Dr. Budnitz observed that assemblies that have been in a spent fuel pool for at least five years do not require water for cooling and can be placed in dry cask storage and cooled by air.

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

Dr. Budnitz requested Mr. Baldwin to continue with the informational presentations requested of PG&E by the Committee for the public meeting. Mr. Baldwin introduced the Director of the DCPD Operations Department Mr. Adam Peck. Mr. Baldwin reported Mr. Peck is a graduate of the U.S. Naval Academy and a former naval officer with U.S. Navy nuclear experience. Mr. Peck holds a Senior Reactor Operator License and has led the Control Room staff as Director of Operations in safely operating both units as well as previously serving as DCPD Director of Engineering.

December 1, 2018, Unit 2 Reactor Trip -
Results of the Final Root Cause Evaluation and Corrective Actions.

Mr. Peck reported he would discuss the results of the Root Cause Evaluation of the Unit 2 Special Protection System (SPS) actuation and resulting reactor trip. Mr. Peck stated he served as the root cause sponsor which involves leadership oversight and support to understand the causal methods and the follow-on corrective actions. On December 1, 2018 Mr. Peck reported the SPS, a PG&E Electric Operations organization grid protection feature for DCP, had an undesired actuation which resulted in a Unit 2 trip.

Mr. Peck confirmed a root cause evaluation was conducted to address this event. A root cause evaluation is defined as a formal investigation that uses industry-accepted analysis methods to determine the root cause(s) of a problem. The root cause evaluation is conducted by eight to ten individuals and generally occupies six to ten weeks.

Mr. Peck stated the SPS is designed to protect the grid; it prevents a DCP dual unit trip by tripping one unit when certain grid conditions exist whereby a dual unit trip could result in widespread blackouts and further challenges to the grid. He reported the SPS was installed in 2006 based on grid conditions at that time and this was the first instance of SPS actuation since it was installed.

Mr. Peck reported on December 1, 2018, at approximately 10 A.M., Unit 2 tripped from 100% power due to the SPS actuation which opened the 500kV output breakers and resulted in the unit trip. There were no nuclear safety, equipment, or other challenges. He reported all equipment, personnel and procedures responded as designed and ensured a safe shutdown of Unit 2. Mr. Peck remarked that while operators routinely train to respond to a trip this was the first trip for Unit 2 since 2014. Unit 1 has not experienced a trip since 2002.

Mr. Peck reported that Unit 2 tripped due to the low amperage on the 500kV lines when the SPS remote outage detection logic, located offsite at the Gates and Midway Transmission Substations, incorrectly determined that two of DCP's three 500 kV lines were out of service. To prevent a dual unit trip the SPS logic selected Unit 2 to trip. As an immediate response the SPS remote outage detection logic was disabled and risk mitigation measures were developed which include ramping a single unit down to below the actuation set point of the SPS scheme any time a 500 kV line is out of service for either planned or unexpected maintenance. The mitigation measures will remain in place until the logic can be redesigned and installed during the 2R21 refueling outage scheduled for December 2019. In response to Consultant Wardell's query, Mr. Peck confirmed that the SPS logic has the capability of selecting which unit will be tripped based upon a number of inputs. **Mr. Peck stated DCP does not 'own' the special expertise required to redesign the SPS logic and he offered to review with the DCISC during a future fact-finding the method of how the SPS logic functions to select the unit it will trip.**

Mr. Peck stated DCPD is essentially a customer of the PG&E Electric Operations organization in terms of emergency offsite power for both units for the 500kV and the 230kV power supplies. A joint root cause evaluation was performed, led by DCPD with the PG&E Electric Operations organization and this effort included DCPD Operations, Electrical Systems Engineering, Performance Improvement, PG&E Electric Operations and Engineering, Transmission Planning, System Protection, the Transmission Grid Control Center and the Remedial Action Scheme (RAS) Operations organizations. Mr. Peck reported a number of opportunities for improvement were identified in this effort.

Mr. Peck reviewed the results of the root cause investigation and the mitigating actions taken or to be taken. Root Cause 1a was a latent design vulnerability which represented a legacy issue, having existed from the original installation of the SPS. The SPS remote outage detection logic had a latent design vulnerability in that the SPS looked at amperage on the 500kV lines but did not have an indication of actual breaker position at the remote substations and this vulnerability was exposed when power path flows on the grid changed, combined with DCPD Unit 1 having ramped to 50% prior to the Unit 2 trip. Mr. Peck reported the grid flow at the time of actuation was unusual and was based on conditions outside of DCPD or PG&E's control. This resulted in the SPS logic, sensing low flows on two of DCPD's three 500kV lines and therefore justified the trip signal. In response to Consultant McWhorter's inquiry Mr. Peck replied DCPD was not involved in the 2006 installation of the SPS with the rigor that would be expected today. He described the corrective actions taken and planned to prevent recurrence as including redesign and implementation of SPS remote outage detection logic to make the SPS scheme secure and to mitigate logic vulnerabilities due to changing grid conditions including power path flows and generation changes. Mr. Peck reported DCPD is in the process of completing modeling of conditions on the grid and he reported that installation of new SPS logic can only be done during a refueling outage.

Mr. Peck commented that the SPS design process was not adequate in that the initial design vulnerability was not recognized or mitigated in the original Electric Operations design process. The process did not identify vulnerabilities for this one-of-a-kind design and did not ensure they were mitigated. In response the Electric Operations organization has agreed to ensure DCPD and Electric Operations are both involved in identification of design vulnerabilities.

Mr. Peck described the second root cause identified as being that required evaluations by the Electric Operations organization of changing conditions on the electrical grid were not fully completed as required every five-years as conditions on the grid continued to change. This represented what Mr. Peck described as a missed opportunity to identify vulnerabilities in the SPS and to recommend corrective actions. Procedures have been revised to prevent recurrence and to specify periodicity, roles, responsibilities and accountability for completion of evaluations of grid conditions including an independent review of the evaluations by DCPD as a customer of the grid protection scheme.

In response to Consultant Wardell's question, Mr. Peck reported that while some corrective actions have been completed implementation of the new SPS logic design is tied to the

next Unit 2 refueling outage which is scheduled to commence in September and finish in December 2019. In response to Dr. Budnitz' inquiry Mr. Peck confirmed the Electric Operations organization is in many instances responsible for preparation and execution of the new SPS design but he confirmed that DCPD is now very involved and vested in the oversight of these efforts by Electric Operations and contact between the two organizations is ongoing every week at the senior vice president level. Dr. Budnitz commented that while nuclear power plants are designed for trips such as Unit 2 experienced in December 2018, such events challenge plant systems and in the case of the December 2018 event the trip was not necessary.

Dr. Budnitz inquired whether Mr. Peck or any of his colleagues had calculated the contingent core damage probability of the plant experiencing additional challenges from the December 2018 initiating event. Mr. Peck replied that from a root cause perspective the team did not look at changes to the probabilistic risk analysis. Dr. Budnitz opined that the core damage probability would be approximately 10^{-5} due to a loss of offsite power initiating event. He commented and Mr. Peck agreed that the Probabilistic Risk Assessment group at DCPD is well positioned to perform this calculation which would assist in putting the December 2018 trip in context. In response to Consultant McWhorter's inquiry, Mr. Peck stated the SPS has a number of different logic inputs and only the remote outage detection logic input was disabled in response to the December 2018 Unit 2 trip. Mr. Peck remarked the root cause evaluation for the December trip DCPD identified that in July 2018 the two 500kV lines going south from the plant (one of the three 500kV lines goes north) saw low amperage which met two of the three coincidence for SPS activation and in that same year grid flow resulted in low in the northern single line which met one of the three SPS indications in the grid control center. Mr. Peck stated these events represented missed opportunities to understand the SPS' vulnerability.

Dr. Lam remarked that thirty years ago a nuclear power plant tripped on average of ten times each year and the effort and resources DCPD has applied to this single trip is indicative of how much progress DCPD and the industry have made in terms of reliability.

In response to Consultant Wardell's question earlier in Mr. Peck's presentation, Mr. Garcia observed the SPS logic resulting in the trip of Unit 2 in December 2018 included evaluation of SPS data that Unit 1 was at that time due to enter a refueling outage in approximately two months and the need for adequate power to be able to restart Unit 1 should it be tripped by the SPS.

Ms. Sherry Lewis of Mothers for Peace was recognized. In response to Ms. Lewis' question as to what the SPS activation was intended to protect, Dr. Budnitz and Mr. Wardell replied the SPS is intended to protect from a dual unit trip in the event of a 'sag' in the grid and to prevent the resulting disruption to or collapse of the grid with resulting blackouts in the event of a dual unit trip. Mr. Peck confirmed Dr. Budnitz and Mr. Wardell's observation and stated the DCPD 500kV lines form the backbone of the Western Electric Grid System and disruption of the grid can affect the power supply to California, Oregon, Washington and all the way out to Mississippi. The SPS performs this protective function by removing megawatts (MW) being pushed out to the grid by DCPD to stabilize it from any challenges. When the SPS senses that two of the three 500kV lines are blocked, SPS logic assesses that the plant must be producing too much power for the single remaining 500kV line and it removes some of that power from the

grid by tripping one unit.

Dr. Gene Nelson of Californians for Green Nuclear Power was recognized. In response to Dr. Nelson's inquiry Mr. Peck replied that with both units operating there is approximately 1,000 amps spread across the lines, dependent on the flow of power going north to south or vice versa and upon many other variables such as the time of day, the weather conditions, and grid demand. The actuation set point for the SPS is set at approximately 180 amps on the line, so if the current falls below 180 amps the SPS determines that this reading indicates only the loading on an open end of the 90-mile long transmission lines and the SPS logic actuates a single unit trip. In response to Dr. Nelson's second inquiry Mr. Peck stated the five-year reviews of grid conditions are intended to understand changes that evolve concerning the grid and to identify any changes that may be required to remedial action schemes.

The Chair recognized Mr. Greg Haas, District Representative for U.S. Representative Hon. Salud Carbajal who was present in the audience.

Mr. Peck made the next informational presentation to the Committee.

Presentation on the State of the Plant including Key Events, Highlights and Station Activities since the DCISC's February 2019 Public Meeting.

Mr. Peck stated he would be reviewing plant operation and performance since the last public meeting of the DCISC in February 2019. He reported both units are now operating safely at 100 percent power with a probabilistic risk assessment (PRA) of "Green." All NRC Performance Indicators are "Green." He reported Unit 1 successfully completed its twenty-first refueling outage (1R21) and is approaching 90 days of reliable operation since 1R21 concluded. Unit 2 was curtailed to 50% power in April 2019 shortly after 1R21 to conduct tunnel and condenser cleaning due to marine growth. Mr. Peck reported the NRC conducted a Force-on-Force Inspection at DCPD in May 2019 and Mr. Peck reported a great deal of effort goes into these Force-on-Force Inspections.

Mr. Peck reviewed the daily load profile for the past four months including the outage duration for 1R21 from mid-February to mid-March 2019 and the Unit 2 tunnel cleaning shortly thereafter. He then reviewed the daily load profile for the last twelve months which included the Unit 2 automatic trip in December 2018 and curtailment due to Pacific Ocean storm surge activity and the curtailment of Unit 1 in December 2018 to address a bearing vibration problem with a main feedpump which resulted in Unit 1 being at 50% power when the automatic trip of Unit 2 occurred. In response to Consultant Wardell's inquiry concerning a notation as to reduced generation due to warm ocean temperatures, Mr. Peck stated that DCPD's megawatt output can be affected by the efficiency of the Pacific Ocean which serves as the plant's heat sink. August and September generally see the warmest ocean temperatures along the California coast and during these months the plant produces on average 10 to 20 megawatts less power and he confirmed Mr. Wardell's observation that this was not a regulatory limit but is the result of the effect of warmer ocean temperatures on generation efficiency.

Mr. Peck reported on and briefly discussed upcoming station activities including:

- INPO Fire and Emergency Planning Inspection - June 17, 2019.
- INPO Operations Crew Performance Evaluation - July 15, 2019
- World Association of Nuclear Operators (WANO) Peer Review - August 12, 2019
- Unit 2 Refueling Outage 2R21 including Main Generator Stator Upgrade Project - Commencing Scepter 22, 2019 and scheduled for 85 days duration

Dr. Gene Nelson of Californians for Green Nuclear Power was recognized. In response to Dr. Nelson inquiry concerning whether there was flexibility in scheduling refueling outages based upon grid conditions Mr. Peck replied that there was minimal flexibility, as typically the design of the core and the time between refueling outages will be determined so as to use as much fuel as possible and accordingly there would generally be only one to two weeks available for postponement of a scheduled refueling outage.

A short break followed.

The Committee Members then took up the only item on the Consent Agenda, scheduled for later in the meeting. This item was approval of the Minutes of the Committee's February 27-28, 2019 public meeting held in Pismo Beach, California. The Members and Technical Consultants reviewed the draft of the February 2019 Minutes provided with the agenda packet for this meeting. Items were discussed and reviewed for follow up or for future action and clarification was provided to the Assistant Legal Counsel concerning certain references in the draft Minutes and regarding typographical or editorial corrections, as well as concerning substantive changes and corrections to be made to the final version of the February 2019 Minutes. The Minutes as revised and corrected will be part of the final version of the Committee's 29th Annual Report on the Safety of Diablo Canyon Power Plant Operations (Annual Report) for the period July 1, 2018 to June 30, 2019.

There were no public comments on February 2019 Minutes and on a motion by Dr. Budnitz, seconded by Dr. Peterson, the Minutes of the Committee's February 2019 public meeting were accepted as amended subject to inclusion of the corrections, revisions and changes discussed which Members and Consultants provided to Mr. Rathie.

XIII INFORMATIONAL DISCUSSION BY COMMITTEE MEMBERS, CONSULTANTS & COUNSEL

Following discussion and approval of the February 2019 Minutes, the Members and Consultants discussed the invitation received from the Diablo Canyon Decommissioning Engagement Panel (DCDEP) for a representative of the DCISC to attend the DCDEP's regularly scheduled meeting on June 12, 2019, to provide remarks on the strengths, weaknesses and opportunities for improvement in the DCDEP's charter from PG&E. Mr. Rathie remarked the DCDEP's discussion in June 2019 will take place in context of the receipt of a letter by the CPUC President and by the DCISC from Mr. Karlin, a member of the DCDEP, seeking a change in the composition of the DCDEP and suggesting opportunities for changing the role of the

DCDEP. After discussing the question of whether this request fell within the DCISC’s mandate to conduct public outreach in the local community, and recognizing that the DCISC’s interaction with the DCDEP is not dependent upon the DCDEP’s organizational structure or its mission together with recognition that the DCISC Members and Consultants possess no particular expertise and lack specific information on how a local San Luis Obispo community engagement panel should be organized, a consensus was reached for the DCISC Legal Counsel’s office to respond on behalf of the DCISC and respectfully decline the DCDEP’s invitation to attend its June 12, 2019 public meeting but in that response to confirm that the DCISC remains available to the DCDEP in the future as a resource for technical issues.

Committee Discussion of Options and a Potential Role for the DCISC After Expiration of the Operating Licenses for DCP, Review of Revised Charter(s) for the DCISC, and Discussion of Participation in the 2018 Nuclear Decommissioning Cost Triennial Proceedings.

The Chair reported that Martin Mattes, Esq., DCISC Special Counsel for Regulatory Affairs, would be participating in the discussion of this item via Skype. Dr. Budnitz asked Mr. Rathie to provide background information on the topic.

Mr. Rathie reported that at the time of the February 2019 DCISC public meeting the Committee’s Legal Counsel’s office received direction from the Members concerning scheduling a meeting with the CPUC Energy Division staff to discuss what, in view of the scheduled closure of DCP by 2025, appears to be an ambiguity in the DCISC’s Restated Charter concerning the scope of the Committee’s review in light of the lack of a definition in the Committee’s Restated Charter of what constitutes “operations.” Mr. Rathie reported that on March 7, 2019, an Amended Scoping Memo was issued in the 2018 Nuclear Decommissioning Cost Triennial Proceeding (NDCTP) which addressed issues raised by Mothers for Peace concerning reactor vessel embrittlement and issues raised by Mr. Karlin concerning the scope and propriety of the DCISC review of issues relating to decommissioning of DCP. Mr. Rathie reported that on March 15, 2019, the DCISC filed a Motion for party status in the NDCTP which, at the time of this public meeting remains pending before the assigned Administrative Law Judge (ALJ). If granted, Mr. Rathie stated the venue to determine the status and role of DCISC after the plant ceases to generate electricity was most likely to be in the NDCTP. Mr. Rathie further reported that with Dr. Budnitz and Mr. Mattes on April 10, 2019 he attended a meeting with CPUC Public Utilities Regulatory Analyst David Zizmor, Esq. and CPUC Assistant General Counsel Jason Reiger, Esq. to discuss obtaining clarification of what the CPUC representatives agreed was an ambiguity in the Committee’s Restated Charter.

Mr. Rathie reported the original Charter for the DCISC was granted by the CPUC in 1988 and the CPUC subsequently granted the DCISC a Restated Charter in 2007 to address certain changes made to the Committee’s operation since its inception. Since the issuance of the Joint Proposal 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 (Joint Proposal) in June 2016 to retire DCP at the expiration of the current operating licenses for each unit, the Committee has heard from several members of the public concerning continuing the DCISC after the plant shuts down and also from the DCDEP. He

reported the DCDEP included a recommendation in its recent Vision Statement that the DCISC stay in operation after cessation of generation operations. Working with the Committee's Technical Consultants, Mr. Rathie reported three alternative versions of a possible Second Restatement of a Charter for the DCISC were developed for review during this meeting and copies of all three were available for public review in the meeting room.

In summary the three alternate versions of a second restatement provide as follows:

- Version 1 - provides for the DCISC to terminate its safety review upon the date of successful completion of the transfer of all nuclear fuel from both DCPD spent fuel pools to the ISFSI.
- Version 2 - provides for the DCISC to terminate its safety review upon the date when permanent cessation of power operations has occurred.
- Version 3 - provides for the DCISC to terminate its safety review upon the latter of eighteen months of the date of permanent cessation of power operations or the date an analysis has been completed that demonstrates that the decay heat produced by the nuclear fuel in both spent fuel pools has diminished such that there are no possible design-basis events that could result in a radiological release exceeding the limits established by the U.S. Environmental Protection Agency early-phase Protective Action Guidelines at the exclusion area boundary.

Mr. Rathie observed that the interests of the PG&E ratepayers who provide funding for the Committee operations should play an important part in the Committee's consideration of this matter. While DCPD continues to operate and to generate electricity the DCISC has previously considered and concluded that its present mandate under the 2007 Restated Charter from the CPUC provides for the DCISC to continue to review matters that are resulting from or are related to decommissioning activities. He remarked should the DCISC's motion for party status in the NDCTP not be granted, another avenue is open to the DCISC to seek clarification of the ambiguity in the Restated Charter through filing an Application in a separate proceeding seeking a second restatement of the Restated Charter from the CPUC. Finally, Mr. Rathie stated that one of the principle issues before the Committee at this public meeting is to decide whether to make a recommendation concerning this matter to the CPUC and even if the Committee's Motion is not granted the discussion of the matter can serve to inform a subsequent Application by the Committee.

Dr. Budnitz stated the Committee could select among the three versions or could rank them in order of preference or the Committee could decide to take no position on any of the three or to reject all three and direct that new versions be prepared. He observed that it is still not known whether the DCISC will be allowed to participate in the NDCTP.⁴

⁴ On June 6, 2019, ALJ Houck issued her Ruling denying the DCISC's Motion for party status in the 2018 NDCTP.

Mr. Mattes reported the Amended Scoping Memo in the NDCTP, issued by the Assigned Commissioner on March 7, 2019, included reference to Mr. Karlin's challenge to the authority of the DCISC to undertake any expenditures related to decommissioning and this issue is therefore within the scope of the NDCTP. He reported the deadline for the Committee to submit prepared written testimony addressing the issues raised by Mr. Karlin and to make a recommendation for a second restatement of the Charter in the NDCTP is on or before July 15, 2019 and the DCISC would need to be prepared at that time to have a Member attend as a witness and be subject to cross-examination on those topics at the evidentiary hearings which are scheduled for the week of September 23-27, 2019, with opening and reply briefs due during October and November 2019, with a proposed decision due 90 days thereafter, likely by late February 2020.

Dr. Budnitz observed and Mr. Mattes agreed that it would be important to now discuss which of the three versions of a second restatement the Committee may wish to recommend and direct counsel to prepare testimony for review in accordance with Committee procedures.

Dr. Peterson stated the Committee has already reviewed and issued a table summarizing the items from the Open Items List which the Members believe would be appropriate for their continued review if the Committee were to continue activities after cessation of generation and this is useful as it assists in communicating to the CPUC and to any interested parties how the scope of the DCISC's review and accordingly the cost of that review would be reduced.

Dr. Budnitz moved that the Committee recommend to the CPUC Version 1 as the appropriate second restatement of its Charter and to explain to the CPUC why the Committee reached this conclusion and why Version 2 or Version 3 were not selected. Dr. Lam stated he was inclined to support Dr. Budnitz proposal as it is his belief that the most critical mission of the Committee is safety review of the storage and movement of spent fuel as well as review of generation related activities at the plant. He stated it was his belief that it would be a major failure by the Committee if it were to walk away from safety review of spent fuel storage.

Dr. Peterson questioned whether it is within the Committee's authority to offer a recommendation to the CPUC concerning continuance of the Committee and he opined that the issue of continuance of the Committee after cessation of generation is a policy decision which requires weighing a set of factors that are beyond the competence or capability of the Committee. Dr. Peterson suggested presenting a set of options along with their implications and the cost of each and recommending that the CPUC choose between them. Dr. Lam stated that before issuance of the Amended Scoping Memo he was fully in support of Dr. Peterson's position but with issuance of the Amended Scoping Memo he believes a response including an endorsement of a single version of an alternate second restatement may be appropriate.

Dr. Budnitz stated the CPUC's decision to form the DCISC was related to the added value it provides. He observed the risk is greater when the units are operating than when they are not but even when both units cease operations there is a substantial risk in the initial post-operational period related to loss of cooling to the spent fuel pools which could produce a significant release. He observed that after the last operational core from Unit 2 is off-loaded there will be two young, full cores in the spent fuel pools which has never before happened at DCCP. At that point he remarked the danger of a zirconium fire which would produce a large

release is greater than the prior risk of any potential release from either of the spent fuel pools. Dr. Budnitz stated his belief that the public's concern about a large release extends until at least eighteen months have passed since the second unit ceases operation, when the potential for a zirconium fire is reduced or almost eliminated and to terminate the DCISC's review any earlier, such as proposed by Version 2, would result in short-changing the public. Dr. Budnitz remarked that the post generation risk of a large release is less than if the reactors were operating but the consequences would be great and it is the consequences rather than the probability that concern many members of the public. He affirmed his belief that the Committee should offer to the CPUC its recommended preference between Versions 1 and 3 and explain the risks associated with all three versions.

Dr. Lam observed the three versions of a second restatement essentially offer different definitions of what constitutes operations and Dr. Peterson's concern might be addressed by the Committee expressing no preference as to those definitions. Mr. Rathie stated that with respect to risk he believes the CPUC would be looking to the DCISC for an assessment.

Mr. Mattes observed Versions 2 would terminate the DCISC upon cessation of generation operations while Versions 1 and 3 define operations as extending through the post-generation storage of nuclear fuel but have differing termination clauses and the Committee may wish to propose that the CPUC define the concept of operations in a way that limits or expands the Committee. Dr. Budnitz remarked he viewed the process of defining operations as emerging from the Committee's recommendation and he suggested that the Committee on the basis of the risk he described continue at least through the period provided by Version 3 and explain in its testimony the distinctions and options available between Version 3 and Version 1 and why the Committee was not recommending Version 2. Dr. Budnitz also recommended explaining to the CPUC the Committee's perception of the local community's impression of the value provided by the DCISC.

Dr. Peterson observed that much of what Dr. Budnitz described consists of policy determinations which are not within the Committee's purview. He remarked that the Committee exists because it was created by the CPUC and provided with a Charter. Dr. Peterson stated that while the hazards associated with DCCP do not disappear upon cessation of generation they are lessened substantially and eighteen months following cessation of generation there is a further substantial reduction in risk. He further noted that when all fuel is within the ISFSI there is again a large reduction in risk and the question of where it makes sense to continue to expect the ratepayers to pay for the DCISC is a policy decision. Dr. Budnitz reiterated his view that the Committee ought to make a recommendation concerning a possible post-shutdown role and express a preference and base that preference on a risk assessment. Dr. Lam expressed his concern that making a recommendation might be seen by some as self-promotion on the part of the Committee. Dr. Budnitz and Dr. Peterson discussed the value added by the DCISC and Dr. Budnitz remarked in his discussion with members of the public in other communities people often express a desire for a committee similar to the DCISC in their communities even if only to provide access to otherwise unavailable information.

The Committee Members then discussed the process for collectively developing written testimony in the event the Committee is granted party status in the NDCTP and Mr. Mattes

confirmed the ability to subsequently supplement written testimony in a CPUC proceeding is very limited. Mr. Mattes observed that in its written testimony it would be logical that any recommendation by the Committee as to a post-shutdown role would flow from a discussion of the Committee's assessment of risk and the duration of the risk. Dr. Peterson observed the spent fuel pools do not factor into the probabilistic risk assessments as a significant source of risk. Dr. Budnitz agreed but he stated his opinion was not based upon a concern about probabilities of the risk but rather about his belief that the public bases its concerns on the consequences of the risk of a release. Dr. Peterson stated his opinion that the DCISC's role is to provide is objective assessment of the safety of the plant and this should not be weighted by the public's perception. Dr. Budnitz agreed with Dr. Peterson's observation that there is no probability of a large release once two or three years have passed after cessation of generation but until that time there is a small, but not zero, probability of a large release and Dr. Budnitz again expressed his view that the risk together with the potential consequences should be explained by the Committee. Dr. Lam proposed a compromise, suggesting the Committee dismiss Version 2 and propose Versions 1 and 3 to the CPUC without expressing a preference for either of the two versions. Dr. Budnitz stated he could subscribe to Dr. Lam's suggestion provided an explanation of the distinctions between Version 1 and Version 3 were incorporated in the Committee's testimony. Consultant McWhorter observed one of the principle differences between Version 1 and Version 3 lies in the ability of a release to go offsite and the changes which occur to emergency planning once that risk is eliminated. Consultant Wardell remarked that in his opinion the DCISC should express its view to the CPUC, as the policy maker, on the nuclear safety issues raised in connection with spent fuel accidents for the periods under discussion. Mr. Wardell stated the Committee should dismiss a recommendation based on Version 2 and explain its rationale for doing so and select either Version 1 or Version 3, explaining its rationale for doing so and the resulting diminution of the Committee's scope of review and activities as its recommendation in its testimony in the NDCTP. Mr. Wardell further expressed his opinion that Version 1 should be the basis for any recommendation to the CPUC.

Dr. Peterson stated the Committee should consider bringing forward Version 1 as its recommendation and provide discussion in its testimony in the NDCTP concerning alternative points in time when the Committee's activities might be terminated and acknowledging that after cessation of generation the Committee's role and scope would be substantially reduced. Mr. Mattes stated that Dr. Peterson's suggestion provided a clear path to proceed to draft testimony in the NDCTP, which would be in a question and answer format, to convey the DCISC's recommendation and its rationale for choosing among alternatives based upon the corresponding risk in terms of their probabilities and consequences and the corresponding diminution of the Committee's role after generation ceases. Mr. Mattes stated he believed this course of action would avoid confusion or an erroneous interpretation of the DCISC's position by the CPUC.

Dr. Gene Nelson of Californians for Green Nuclear Power was recognized. Dr. Nelson suggested the Committee should develop a table to summarize the risk and consequences of each of the identified alternatives. Drs. Budnitz and Peterson and Mr. McWhorter briefly discussed revising the Committee's Draft Post-Shutdown Summary, which describes the anticipated scope of the Committee's review during four phases following cessation of generation, to include the probabilities and the consequences of the risk in each category. Dr. Nelson confirmed Mr.

Mattes' advice that the CPUC does not freely allow written testimony in its proceedings to be subsequently supplemented and he encouraged the DCISC to express its recommendation in full in its written testimony.

Mr. Sherry Lewis of Mothers for Peace was recognized. Ms. Lewis stated her view that the DCISC represents a valuable resource for the local community although as an anti-nuclear person she is often frustrated by some of the discussion at DCISC public meetings. She observed the DCISC provides a forum where the public can come and raise issues and have them addressed by the Committee. Ms. Lewis observed that the principal reason the Committee was created and exists today was due to the involvement of the California activist community. Dr. Peterson remarked that technologies that have both intrinsic hazards and potential for benefits and which cross different disciplines are dependent upon effective regulation but a committee such as the DCISC which has oversight but not regulatory authority provides valuable flexibility in serving as a conduit for the public.

Upon a motion by Dr. Peterson, with a second by Dr. Lam, the Committee unanimously approved presenting written testimony to the CPUC in the NDCTP, should party status be granted in that proceeding, regarding its recommendation of Version 1 as a proposed Second Restated Charter for the DCISC and directing and delegating to Legal Counsel and the Committee's Technical Consultants development of the necessary supporting materials to be submitted to explain the other alternatives considered by the Committee and the rationale for its recommendation that Version 1 be adopted by the CPUC. On a motion by Dr. Lam, seconded by Dr. Budnitz, the Committee then unanimously approved designating Dr. Budnitz to work with the Committee's Legal Counsel and Technical Consultants to develop the Committee's testimony in the NDCTP. Finally, upon a motion made by Dr. Lam, seconded by Dr. Peterson, the Committee unanimously approved the supervision of the testimony in the NDCTP by Dr. Peterson in accordance with the Committee's procedures and for Dr. Peterson to be designated as the DCISC's witness for the CPUC hearings on the NDCTP during the week of September 23-27, 2019.

XIV ADJOURN AFTERNOON MEETING

The Chair adjourned the afternoon meeting of the Committee at 5:40 P.M.

XV RECONVENE FOR EVENING MEETING

The June 4, 2019, evening session of this public meeting of the Diablo Canyon Independent Safety Committee was called to order by its Chair at 5:45 P.M. Dr. Budnitz welcomed those present.

XVI COMMITTEE MEMBER COMMENTS

There were no comments by any Member at this time.

XVII PUBLIC COMMENTS AND COMMUNICATIONS

Dr. Gene Nelson of Californians for Green Nuclear Power was recognized. Dr. Nelson reported that Californians for Green Nuclear Power remains very much engaged in efforts to

keep DCPD operating beyond 2025 and have been developing novel and new legal strategies to support its continued safe operation.

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

The Chair introduced Mr. Jearl Strickland, Executive Consultant to the Holtec International firm and remarked that Mr. Strickland was employed at DCPD for a very long time and during that period Mr. Strickland held a number of important responsibilities including serving in the area of spent fuel management and storage issue.

Informational Presentation by Holtec International on Nuclear Fuel Management and Storage at DCPD.

Mr. Strickland stated his presentation would include discussion of nuclear fuel and how it is stored, the Holtec HI-STORM 100 storage system, transportation of spent nuclear fuel, licensing issues and cask availability for eventually transportation of spent fuel offsite, and the plans for Holtec's consolidated interim storage facility being developed in New Mexico. He reported that Holtec is a privately owned company that has been in business since 1986 and the firm is known for its innovation, self-financed research and development efforts, and for holding dozens of patents on product lines and materials. Mr. Strickland stated Holtec exhibits a strong nuclear safety culture and provides a good quality assurance program. He reported Holtec initially developed high density racking systems for spent fuel pools and subsequently developed dry storage systems and equipment. Holtec has also been involved in development of a 160MW small modular reactor for use overseas with work on that design taking place at Holtec's facility in Camden, New Jersey. Holtec also contracts with or purchases retired nuclear power plants to perform decommissioning. Mr. Strickland reported 116 nuclear power plants around the world use Holtec systems and more than 1,280 dry spent fuel storage systems have been loaded by Holtec personnel to date.

Mr. Strickland reported the fuel assemblies used in a nuclear reactor to produce heat are typically used for that purpose for up to five years and then placed in a spent fuel pool for cooling for five to seven years before being moved to dry cask storage. He reported that much work has gone into licensing efforts to shorten the duration fuel must remain in a spent fuel pool to as short as one to two years after final removal of the fuel from the reactor thereby enabling plants to move fuel from wet to dry storage sooner so as to proceed with fully decommissioning a power plant.

Mr. Strickland displayed photos of the multipurpose canister (MPC) and the steel and concrete overpack used for dry storage and he described the functions of the MPC's various component parts. He reported for DCPD a site-specific license for the Holtec system was granted by the NRC which, due to high seismic activity in the vicinity and unique to DCPD, requires the overpack to be anchored to the pad. In response to Consultant Wardell's question, Mr. Strickland replied the function of the 9-inch thick lid which seals the otherwise ½-inch thick MPC is to provide radiation shielding for workers who must work on top of the MPC when welding the lid after drying of the fuel has taken place. In response to Consultant McWhorter's question, Mr. Strickland stated the MPCs used at DCPD are standard cylinders and provide both

physical and radiation shielding for the fuel inside with the only difference from the MPC used at other plants being that at DCPD the MPCs are somewhat shorter due to a constraint with height of the door from the Fuel Handling Building and accordingly the decision was made to shorten the MPCs so as not to have to manipulate the MPCs more than necessary.

He reported a completely loaded HI-STORM storage system weighs approximately 170 tons and therefore it cannot be transported by truck on a public highway. The HI-STORM system is based upon a passive heat removal technique and requires only minimal maintenance. The design basis requirements for DCPD require that the HI-STORM be designed to resist damage from missiles, tornadoes and seismic events and he described the various threats to the integrity of the HI-STORM system that were analyzed as a part of the NRC licensing process and included of the Final Safety Analysis Report (FSAR). Mr. Strickland reported that many of these same considerations were also analyzed and assessed in the NRC's licensing process for the DCPD Independent Spent Fuel Storage Installation (ISFSI). He remarked that the Electric Power Research Institute (EPRI) has also done studies confirming the robust nature of the MPCs when stored within the HI-STORM overpack. Mr. Strickland reported that at the ISFSI site boundary the dose is approximately 5 millirem per year while a person receives on average 620 millirem from natural background radiation alone each year and would receive a 5 millirem dose during a round trip airline flight across the U.S.

Mr. Strickland observed that the reference to "multi-purpose" in the designation "Multi-Purpose Canister" is to recognize that the MPC is able to be transferred from the storage overpack to a transportation overpack and transported offsite to a federal repository or to a consolidated interim storage facility. He reported Holtec has licensed the HI-STAR 190 and the HI-STAR 100 transportation casks for this purpose and transportation of spent nuclear fuel is highly regulated by the NRC and the U.S. Department of Transportation (DOT), with the NRC overseeing design, manufacture and use of the MPCs and the transportation casks and the DOT coordinating with the NRC to establish rules for packaging and regulating various carriers and to set standards for routes. The HI-STAR 100 is licensed under 10 CFR Part 71 for use to transport MPC's from PG&E's Humboldt Bay Nuclear Power Plant and from DCPD. Mr. Strickland displayed a video showing the robustness of the transportation canisters which must be designed to survive four successive accidents including accidents as a result of fire, being dropping, being punctured, and being submerged in water. He displayed a map of the U.S. showing the sites of nuclear power facilities with stored fuel onsite and the location of the two planned consolidated interim storage facilities planned to be located in New Mexico and Texas.

Mr. Strickland reported Holtec is in the process of developing its planned consolidated interim storage facility to be located at a remote site in New Mexico and the facility is intended to utilize the Holtec UMAX system to store fuel below grade and to accommodate fuel assemblies including those stored in Holtec MPCs as well as for spent fuel assemblies stored in the Orano and Trans-Nuclear firms' dry cask storage systems. Mr. Strickland stated the consolidated interim storage facility is based on the premise that it will provide safe, secure, retrievable and temporary storage to withstand both natural and man-made events without a release. Mr. Strickland stated these facilities are not intended as a replacement for a federal repository, such as was planned at Yucca Mountain, Nevada, but rather for interim storage for a

period of at least 100 years until such a facility or facilities are available. Holtec is planning now for construction of its New Mexico facility starting in 2021 and for being able to accept shipments starting in 2023 and Mr. Strickland briefly reviewed with the Committee the licensing process with the NRC involving both the design basis and environmental aspects of the facility. He reported that Holtec expects the NRC staff will complete its review and make its decision by July 2020. In response to Dr. Lam's query Mr. Strickland stated the requests for additional information made in the process were extensive but Holtec was able to be very responsive to the NRC. He confirmed Dr. Peterson's observation that in order for the U.S. Department of Energy (DOE) to avail itself of consolidated interim storage opportunities legislation will be required and he stated such legislation is presently under consideration.

In response to Dr. Peterson's inquiry about parallel activity by Orano to license a similar interim consolidated storage facility, Mr. Strickland reported Orano suspended its NRC licensing application but it is his understanding Orano's licensing efforts have now been resumed. In response to Consultant McWhorter's inquiry Mr. Strickland stated his understanding that the request for proposals issued by PG&E for DCPD is not proposing to use different casks but rather to afford PG&E the opportunity to understand what options are available and to allow PG&E to make its decision whether to continue with the same Holtec systems. He remarked Holtec intends to provide a number of options in that process for PG&E including moving from a 32-assembly capacity MPC to a 37-assembly capacity MPC which would require a new transfer cask but would remain in compliance with DCPD seismic restraint conditions. Mr. Strickland stated licensing changes would also be required to shorten the duration of time the fuel is in the spent fuel pools from five to seven years to approximately two years. In response to Dr. Budnitz' inquiry concerning if a revised or more advanced system were to be implemented, Mr. Strickland replied that as long as the vendor met the licensing basis that includes the seismic design basis for DCPD, PG&E should have the option of either loading under a general license for the remainder of the fuel or being able to include the vendor's license revision into its site-specific license. In response to Dr. Budnitz' comment about the effects of the marine environment at DCPD on the MPCs, Mr. Strickland stated that materials used for the MPC have continued to evolve and today consist of 8316L steel as its predominant material. Mr. Strickland stated when his current assignment for Holtec at the San Onofre Nuclear Generating Station (SONGS) is concluded, he intends to become actively involved with assisting the State of California to develop a solution to be able to move spent nuclear fuel out of high seismic zones and coastal environments to an interim storage facility if a federal repository is still unavailable. In response to Consultant McWhorter's inquiry about inspection techniques, Mr. Strickland reported Holtec and the fuel storage industry are working on that issue and the General Electric company has developed a robotic camera system that is magnetic and can be placed on the MPC within the overpack to perform a detailed inspection but additional advancements in inspection techniques are being developed. He commented as a part of the license renewal for its ISFSI DCPD must develop a detailed inspection program.

Dr. Gene Nelson of Californians for Green Nuclear Power was recognized. Dr. Nelson inquired concerning what is being done proactively at DCPD to prevent misposition errors in connection with spent fuel loading activities such as occurred at SONGS. Mr. Strickland stated DCPD and SONGS use different systems with the UMAX system used at SONGS being a below

grade system. He stated the UMAX system alignment tolerances are very different from the alignment tolerances required at the DCPD Cask Transfer Facility which, due to its design and level surface, are very stable, predictable and repeatable with the transfer cask transporter being anchored to the ground in a seismically stable configuration during the transfer operation.

Ms. Jill ZamEk of Mothers for Peace was recognized. In response to Ms. ZamEx's inquiry concerning storage of high burn-up fuel Mr. Strickland replied the MPCs now in use at DCPD are designed to store high burn-up fuel. He reported the initial license application for the ISFSI specifically excluded high burn-up fuel because at that time DCPD did not want to address high burn-up fuel in context of obtaining its site-specific license, as there was an immediate need to transport fuel that was not high burn-up from wet to dry storage. He reported the initial license amendments processed for the ISFSI addressed moving high burn-up fuel using the same MPCs and accordingly high burn-up fuel is currently stored at the ISFSI. He stated Holtec's proposal to PG&E to move to a 37-assembly MPC which includes high burn-up fuel will also include a thermal analysis to allow higher heat loads in each MPC and reduce the time the spent fuel spends in the pools. He remarked that Holtec's proposal will likely recommend that DCPD not wait until operations cease to start moving spent fuel and that in some three to four years the transition to the new MPCs should begin to reduce the spent fuel pool inventories and thereby shorten the overall duration to go from cessation of operations to having all fuel stored within the ISFSI, thereby smoothing the transition into full decommissioning. Mr. Strickland confirmed Dr. Peterson's observation that the issue of the storage of high burn-up fuel also turns on how the MPCs are dried, with vacuum drying having never been used at DCPD. Dr. Peterson observed vacuum drying exposes fuel to conditions beyond what it experiences in service in the reactor and has resulted in hydriding and other issues with storage of high burn-up fuel. Dr. Peterson reported and Mr. Strickland confirmed the only method used to dry spent fuel within the MPCs at DCPD has been helium drying which maintains the fuel below its previous maximum in-service temperature.

Ms. Jane Swanson of Mothers for Peace was recognized. Ms. Swanson inquired regarding which agency was responsible to ensure the local roads and bridges would be capable of supporting vehicles transporting spent fuel; what Mr. Strickland meant when he referred to license renewal; and concerning Mr. Strickland's reference to fuel being removed from the pools within three or four years. In response, Mr. Strickland reiterated that he does not speak for PG&E and his reference to fuel being removed from the spent fuel pools in three to four years was a part of the proposal Holtec expects to make to PG&E. He replied his reference to license renewal was to the license renewal required for the ISFSI not for the power plant for which the request to the NRC for license renewal has been withdrawn. Dr. Budnitz and Mr. Strickland replied that the U.S. Department of Transportation and Cal Trans would be the agencies the NRC would rely upon for an assessment of local roadways and infrastructure.

Dr. Nancy O'Malley, a member of the DCDEP, was recognized. Dr. O'Malley stated she was making this inquiry on her own behalf as to whether she was correct in her understanding that a new cask system might allow fuel to be removed from the spent fuel pools as soon as two years after its was initially stored in the pool. Dr. Budnitz responded that while Dr. O'Malley's statement was technically feasible that does not mean such a cask system would be approved by

the NRC and there are differences in fuel from one site to another. Mr. Strickland agreed but he observed that a limiting condition for DCPD is related to the ventilation provided for the HI-STORM while it is in the Cask Transfer Facility but he commented that one of the license submittals Holtec has now pending with the NRC would bring the duration for spent fuel storage down to just over one year and other spent fuel storage firms are working on similar proposals. In response to Dr. O'Malley's inquiry about ownership of fuel that has been transferred to a consolidated interim storage facility Dr. Peterson responded, in accordance with the Nuclear Waste Policy Act, the U.S. Department of Energy formally holds ownership of spent fuel upon its removal from a plant site and could then contract with a firm operating a consolidated interim storage facility for storage services.

Ms. Sherry Lewis of Mothers for Peace was recognized. In response to Ms. Lewis query as to whether Holtec or another consolidated interim storage operator could decide to reprocess spent fuel Dr. Peterson stated that would not be possible as it would require changing a federal policy decision. In response to Ms. Lewis question as to the need for a 9-inch lid on the MPC Drs. Peterson and Budnitz responded the purpose of the thickness of the lid is to provide shielding for workers when the lid is being welded shut or inspected and the MPCs are otherwise designed to provide only minimal shielding from radiation as it one of the principal functions of the overpack is to provide protection from radiation. In response to Ms. Lewis question concerning responsibility for payment of road and infrastructure inspection and improvements Dr. Budnitz commented fuel cannot be transported unless the routes are found to be capable of accepting the loads.

Dr. Gene Nelson of Californians for Green Nuclear Power was recognized. Dr. Nelson and Mr. Strickland confirmed that when an MPC is transported it is removed from its storage overpack and placed in a transport cask designed for use on roads and railroads and its weight is reduced substantially from 170 tons to 125 tons. Dr. Peterson stated the transport cask provides equivalent shielding to the storage overpack though the use of more steel and lead and less concrete.

In response to Ms. Lewis question about storage of spent nuclear fuel beyond a period of 100 years to 300, 5000 or 1,000 years in the future, Dr. Budnitz replied that no one in the federal government or otherwise has yet planned for what is to become of spent fuel during the periods reference by Ms. Lewis and this is an open question. Dr. Peterson remarked assessments have shown the MPCs will likely have a service life of well over 100 years in terms of corrosion and service but they will require continued monitoring and possibly repackaging of the fuel and Dr. Peterson stated it was his hope that future generations will be more rationale than current and past generations have been in dealing with spent fuel.

The Chair introduced Mr. Chris Newport the Senior resident Inspector for DCPD to make the next presentation.

Remarks by the NRC Senior Resident Inspector for DCPD.

Mr. Newport thanked the Committee for the opportunity to address remarks to the DCISC and to provide information to the public on the role of the NRC and that of its Resident

Inspector Program in connection with operating nuclear reactors and the NRC reactor oversight process and he stated his remarks were intended in furtherance of the public outreach portion of the mission of the NRC. He reported as Senior Resident Inspector for DCPD he is assisted by NRC Resident Inspector Mr. John Reynoso. Mr. Newport reviewed the NRC's Mission Statement which provides "the NRC licenses and regulates 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." Mr. Newport stated those words were very carefully chosen and he pointed out that the DOE and the U.S. Navy each have separate regulatory schemes for their oversight of government reactors and nuclear weapons.

Mr. Newport stated the NRC consists of five commissioners and answers directly to the U.S. Congress. The commissioners are political appointees not nuclear professionals and no more than three commissioners can be affiliated with one political party which he observed operates to provide stability within the organization when there is a change of administration in Washington D.C. Mr. Newport reported the NRC's headquarters are located just outside of Washington D.C. and the U.S. is divided by the NRC into four regions, with DCPD being within Region IV which has the largest land area of the four regions. Region IV's headquarters are located in Arlington, Texas.

Mr. Newport reported every operating nuclear reactor in the U.S. has at least two full-time resident inspectors assigned and both he and Mr. Reynoso are local residents and work full-time at DCPD to inspect and observe the actions of DCPD and PG&E to ensure the plant is operated in compliance with its license from the NRC. The NRC resident inspectors have unfettered access anywhere within DCPD and they tour the plant on a daily basis. In response to Dr. Peterson's inquiry Mr. Newport stated that in his and Mr. Reynoso's daily interactions with plant staff, management and leadership they have found that DCPD continues to demonstrate a strong nuclear safety culture with personnel being willing to report safety concerns and he reported there have been no indications that staff are cynical or bitter with respect to the current bankruptcy filing by PG&E or the impending closure of the plant by 2025 which he agreed are issues which have the capacity to affect the lives of many DCPD employees.

Mr. Newport stated resident inspectors are required to hold a bachelor's degree in a technical field and undergo a two-year formal training program and two to four weeks of additional training each year, together with quarterly and annual objectivity reviews. Resident inspectors are only allowed to remain assigned to one power plant for a maximum term of seven years. He briefly reviewed both his professional background and that of Mr. Reynoso.

In response to Consultant McWhorter's query Mr. Newport stated the role of a resident inspector includes emergency response as well as inspection responsibilities and one inspector always remains within the local area with the ability to be on site promptly and to then remain in contact from either the Emergency Operations Facility or the Control Room with the NRC Emergency Response Centers in Arlington, Texas and in Washington D.C. Mr. Newport reported DCPD has computer links whereby all plant information is sent to the NRC's facilities in Texas and Washington D.C. He reported, if necessary, the NRC inspectors have the authority to order PG&E and DCPD personnel to take action. Dr. Budnitz commented that he was on the

NRC staff at the time of the accident in 1979 at the Three Mile Island Nuclear Generating Station in Pennsylvania and at that time the NRC did not have a resident inspector program. Dr. Budnitz commented that had such a resource been available the response by the operators at Three Mile Island could have been very different.

Mr. Newport stated in their role as resident inspectors he and Mr. Reynoso must observe twenty surveillance inspections each year and generally will schedule time to observe any unusual or infrequently performed activities at the plant. He remarked this baseline inspection program provides an excellent sample of how DCPD is being operated. Each day Mr. Newport said he visits the Control Room to read the operations logs and review emails and the Notifications generated during the last 24 hours and attends daily plant management meetings. Each morning there is a phone call scheduled with the NRC regional office concerning activities at DCPD. In response to Dr. Peterson's inquiry concerning self-reported or self-revealing issues or issues which are initially discovered by the resident inspectors, Mr. Newport replied DCPD has not recently experienced a large number of self-revealing issues as the plant has operated well and has not received a large number of violations compared to other sites. Mr. Newport stated he and Mr. Reynoso continually assess the rigor of their inspection activities. In response to Dr. Lam's query Mr. Newport replied he would inform Region IV headquarters if a serious issue with high risk significance were discovered and additional NRC inspection teams would likely be dispatched to DCPD in that event, but for lower level issues Region IV management receives a briefing each quarter concerning violations pending documentation, to ensure that enforcement protocols are consistent across all sites in the region. He commented that as resident inspectors he and Mr. Reynoso can seek assistance from the NRC's regional or national headquarters with regard to technical issues and he reported that he has never experienced direct intervention from any NRC headquarters with reference to technical inspection findings.

Mr. Newport reported annual funding for the NRC is provided in a total amount of approximately \$1 billion and this amount has been in a decline in recent years due to the size of the industry having been reduced. He reported approximately 80% of the NRC's funding is paid for by the licensees, such as PG&E, and he observed this was a very different case than for other regulated industries. In 2018 the NRC resident inspectors and regional inspection teams performed approximately 6,300 hours of total inspection activity, with 2,500 hours of that total representing direct inspection activity. Regional inspection teams perform inspections in specialized areas such as emergency preparedness, fire programs, radiation protection and certain in-service inspections. Mr. Newport reported all inspection reports with the exception of security or safeguards related information are publicly available including through the NRC website and he commented he tries very hard to create inspection reports that a reasonably informed member of the public can understand. He reviewed the NRC's Reactor Oversight Process (ROP) and the Action Matrix used in the ROP which he described as key to how the NRC performs its oversight of commercial nuclear reactors. Performance indicators and color-coded risk significance indicators are used as metrics in this process and contribute to determining what level of oversight a plant will receive from the NRC, with poor performing plants demonstrating performance with a higher level of risk-significance receiving greatly enhanced levels of NRC inspection activity including more public meetings and press releases. Mr. Newport reported the majority of U.S. commercial nuclear power plants including DCPD are

now within Licensee Response Column 1 on the ROP Action Matrix indicating their performance meets or exceeds the NRC's performance metrics. In describing the colors used by the NRC to indicate findings of risk significance Mr. Newport stated Green indicates very low risk, White indicates an elevated risk but still a low risk, while Yellow or Red represent safety-significant issues and, although extremely rare, if a plant were to receive a Yellow or a Red finding that would have a major impact.

Dr. Peterson thanked Mr. Newport for his presentation and for meeting with the DCISC during its frequent fact-finding visits to the plant to discuss insights and review issues being followed by the NRC and by the DCISC.

Dr. Gene Nelson of Californians for Green Nuclear Power was recognized. In response to Dr. Nelson inquiry about Mr. Newport's actions following the December 1, 2018 Unit 2 trip due to grid conditions (discussed earlier at this meeting), Mr. Newport reported he was offsite at the time of the trip but was immediately contacted by the plant and promptly reported the trip to Region IV headquarters. He stated his first job once arriving on site was to assess the condition of the plant and to make sure the plant was stable. He then gathered the impressions of the operators as to what had caused the unit to trip and he provided that information to Region IV. Mr. Newport then spent the rest of the weekend reviewing plant data and plant alarm response recorders to ensure the plant responded in accordance with his assessment and as designed. When it was determined that the issue was due to grid conditions, Mr. Newport then reviewed the causation determination to ensure it was correct and sat in on management and leadership meetings concerning the plans to restart Unit 2. Mr. Newport reported that over that period of time he worked 12 to 15 hours each day and he remarked this was for an uncomplicated plant trip with no issues.

XIX ADJOURN EVENING MEETING

The Chair adjourned the afternoon meeting of the Committee at 7:30 P.M.

PUBLIC TOUR OF DIABLO CANYON POWER PLANT

On the morning of Wednesday, June 5, 2019, DCISC Members Drs. Budnitz and Lam, together with Committee Technical Consultants Mr. McWhorter and Mr. Wardell and Assistant Legal Counsel Mr. Rathie, accompanied by 21 members of the public participated in a tour of Diablo Canyon Power Plant (DCPP). The members of the public responded to the advertisement concerning the public tour placed in a local area newspaper and on the DCISC's website. The group assembled in the PG&E Energy Center auditorium for a safety message and a brief introduction of the DCISC and its Members and Technical Consultants and a discussion of the appointment of its members and the operations of the Committee and to view an informational video on the history, role and responsibilities of the Committee. Afterward, DCPP Marketing & Communications Representative Mr. Diana Turk, who also served as the group's escort during the tour, gave informational presentations about the plant and the operation of DCPP as a nuclear power plant. An opportunity was provided for questions.

The group then boarded a bus for the ride to the plant. The bus entered the plant site through the Avila Gate and the group received security badges and a briefing from PG&E

representatives on the various external features and buildings and was taken on a narrated drive-by of the Independent Spent Fuel Storage Installation (ISFSI), also known as the dry cask spent fuel storage facility.

The bus then arrived at the parking area. The members of the public and the DCISC Members, Consultants and Counsel visited the Simulator Observation Room and observed an Emergency Response Exercise which was in progress during the visit. The group then had the opportunity to view the Intake and Outfall Facilities where the plant pulls in and discharges cooling water from and to the Pacific Ocean and to receive information from Mr. Bryan Cunningham, the System Engineer for the plant's cooling systems.

The group then departed DCPD for return to the Energy Education Center and had the opportunity to discuss the plant with individual DCISC members and consultants.

XX RECONVENE FOR AFTERNOON MEETING

Dr. Budnitz convened the afternoon meeting of the DCISC at 1:00 P.M. and welcomed those present. He remarked the Committee conducted a very successful plant tour with members of the public earlier in the day and recommended members of the public who wish to tour the plant with the DCISC watch for public notice of the next tour. Due to a scheduled refueling outage, the Committee is not conducting a public tour in conjunction with its October 23-24, 2019 public meeting.

XI COMMITTEE MEMBER COMMENTS

There were no comments by Members at this time.

XII PUBLIC COMMENTS AND COMMUNICATIONS

There were no comments from members of the public at this time.

XXIII CONSENT AGENDA

The Chair reported the only item on the Consent Agenda was taken up during the afternoon of June 4, 2019 (see above) when the Minutes of the Committee's February 27-28, 2019 public meeting held in Pismo Beach, California were unanimously approved as revised.

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

The Chair requested Consultant McWhorter to report on a fact-finding visit to DCPD on April 16-17, 2019 with Dr. Lam. Mr. McWhorter stated topics reviewed with PG&E during that visit included the following:

➤ Meeting with NRC Senior Resident Inspector - Mr. McWhorter stated the DCISC representatives met with NRC Resident Inspector Mr. John Reynoso and discussed the NRC initiative to conduct public meetings in locales with ongoing decommissioning-related activities and that a request is pending concerning such a meeting to be held in the local San Luis Obispo area. The fact-finding team also discussed results of the NRC first quarter inspection which were

at that time in draft form and the generally positive results of the 1R21 refueling outage.

➤ Future Movement of Spent Fuel - the fact-finding team reviewed the technical specification limits for the minimum amount of time spent fuel must remain in a spent fuel pool after its final removal from the reactor core. Mr. McWhorter stated this is a complex topic but the short answer to the question, at this time, is a minimum of five years. He displayed a table which was created as part of Section 10.2 of the Updated Final Safety Analysis Report (UFSAR) for the ISFSI which sets forth the default maximum heat loads for high burn-up fuel assemblies considered for placement within the 32-assembly capacity MPC currently in use at DCPD and what the maximum burn-up must be for the different assemblies to be assigned a location within defined regions within a MPC. He reported there are both inner and outer regions within a MPC and each has different heat limits. In order to meet these limits high burn-up fuel can require more than ten years in a spent fuel pool before it can be loaded in a certain region within a MPC. Following Mr. Wardell's report on the May 8-9, 2019 fact-finding, Mr. McWhorter reported that per the UFSAR for the ISFSI Region 1 of the MPC consists of 12 assemblies and is located in the center of the MPC and high burn-up fuel is allowed to be loaded in Region 1 while assemblies with a lesser heat load are loaded in the 20 areas available in Region 2, on the outside circumference of the MPC, to balance the heat load and radiation shielding requirements and to set up large scale circulation of helium within the MPC, up the center and down the outside of the MPC. Dr. Budnitz observed that apart from using the default tables, DCPD could perform a separate analysis and apply for a configuration exemption if it believes the overall performance of a proposed loading plan meets the higher level criteria but the only reason to do so would likely be due to a decision to rearrange certain spent fuel pool configurations or fuel loading parameters but the method defined in the UFSAR would still need to be used for any exemption. Dr. Lam observed he believes the seven to nine-year duration PG&E used in its recent submittal to the CPUC may be an accurate estimate of DCPD spent fuel pool duration and for high burn-up fuel the duration is now more than five years using the current tables and approved methodology.

Mr. McWhorter reported the fact-finding team also inquired concerning PG&E's issuance of a request for proposals for spent fuel storage systems and he confirmed Mr. Strickland's statement earlier in this public meeting that PG&E hopes to take advantage of advances in knowledge and technology since the ISFSI was licensed, including in the use of advanced materials. He commented on the importance of the materials used for a MPC to have higher thermal conductivity to enable the heat from the assemblies to be conducted to the outer shell of the MPC and then to the outside. The present MPC design limits each fuel assembly to approximately 28kW but there are studies that show the use of different materials could possibly raise that level to as high as 50kW which would allow earlier loading of assemblies while keeping the temperature of the fuel below the point where zirconium hydriding of the cladding might take place. Mr. McWhorter remarked that advances in modeling for thermal properties have also improved which provides a greater understanding of the thermal properties of a MPC and what happens inside the MPC. The DOE has done heat transfer studies at the North Anna Nuclear Generating Station in Virginia using instrumentation placed inside a MPC with high burn-up fuel and these advances and studies seem indicate that there is perhaps considerable margin included in previous analyses that could possibly be recouped to allow hotter assemblies to be loaded.

Mr. McWhorter stated PG&E hopes to receive information on these options through the responses to the request for proposals and to learn how the time required for DCPD spent fuel to remain in the spent fuel pools might be reduced in order to minimize the overall inventory in the pools, which is of considerable concern in the local community based upon a current proposal by PG&E to the CPUC to retain existing fuel inventories in the pools for seven years. Mr. McWhorter reported there are currently no MPCs on order for DCPD and the plant's goal is to complete the process to apply for an amendment to the ISFSI license by 2021 and to complete licensing approval and procurement of the MPCs in time to support use of new MPCs or new technology by 2025 which he described as a very challenging schedule.

➤ Reactor Vessel In-Service Inspection and Relief Requests - Mr. McWhorter remarked this item was included in the agenda for the fact-finding due to comments received from members of the public. He explained a relief request was submitted by DCPD in late 2018 concerned visual examination of the Unit 1 reactor vessel's four hot leg nozzles to ensure there was no foreign materials on the nozzles and the relief request permits this examination to be done by a lower resolution camera at a different calibration with differing verification requirements than would be otherwise required by the ASME Code. Mr. McWhorter reported this exemption issue is part of an industry effort coordinated by the Electric Power Research Institute.

Concerning vessel weld inspections, Mr. McWhorter reported Unit 1 had 100% of its vessel welds robotically inspected in 2005 and during the 2013 ten-year inspection there were problems experienced with the robot used for the inspection and only 84% of the vessel welds were inspected at that time. Subsequent to the 2013 inspection, PG&E sought and received an exemption from the NRC to extend the ten-year inspection interval for the Unit 1 vessel welds from ten to twenty years. Had approval not been granted the next inspection would have taken place in 2015 but now that inspection would take place in 2025 if the plant were not closing by that date. Accordingly, Mr. McWhorter reported there are no plans to do further inspections of the Unit 1 vessel welds. Dr. Budnitz observed that because the ASME Code allows exemptions, with PG&E's relief request granted DCPD remains in compliance with the ASME Code. Dr. Budnitz reported the defined basis for granting such relief requests is set forth in the ASME Code and requires specific evidence and detailed analysis of the specific welds as well as the fluids and conditions to which they are exposed. Mr. McWhorter reported that in the 2005 and 2013 inspections of the vessel welds there were no indications found that exceeded established thresholds and no indications of growth and most of the indications were original construction indications. He reported Unit 2 had 100% of its vessel welds inspected in 2016 and were the plant not scheduled to close by 2025, Unit 2 would be due for its next inspection in 2026.

➤ Performance Improvement Program - the DCISC fact-finding team reviewed the assessment done by the Performance Improvement Program of the decline in the numbers of Notifications generated during the past few years. The assessment determined there is no single reason for the decline and there was no reluctance found on the part of employees to generate a Notification nor have there been any changes to the numbers of Notifications generated anonymously. The causes for the decline in Notifications were determined to be improved human performance, the reduction in the number of capital projects being undertaken and the

reduction in preventive maintenance activities as the plant approaches closure. Mr. McWhorter reported there have been some personnel changes in the management of the Performance Improvement Program. In response to the DCISC representatives' inquiry, the Performance Improvement Program representatives responded there have been no effects on performance of the DCPD workforce due to the PG&E bankruptcy filing. He reported a self-assessment was performed during 1R21 for human performance event rates and no changes were found. There were no Department-level events during 1R21. Mr. McWhorter reported the department most closely watched by the Performance Improvement Program for any decline in performance is the Maintenance Department as it generally has the higher turnover rates and the highest numbers of temporary workers.

➤ Foreign Material Exclusion (FME) Program - Mr. McWhorter reported the DCISC reviews this program following each refueling outage and the DCISC team found it to be generally healthy. Three threats were experienced during 1R21: first, when a D-ring was found in the reactor cavity after the cavity had been found to be cleared; second, when workers on the reactor head allowed a tool to come loose from its lanyard and drop into the mechanism and the magnet used to retrieve the parts broke, and third, when a contractor in the condenser water box dropped a piece of inspection equipment into the circulating water inlet which was submerged at the time and required a scuba diver to retrieve. DCPD has concluded from these three events, an increase from one event during 2R20, that there needs to be improved awareness of FME requirements and several FME awareness bulletins were issued during 1R21. **Mr. McWhorter recommended that while the FME Program is effective, the DCISC should follow up concerning FME training for temporary workers during a future fact-finding.** During 2R21 a large project is scheduled for the main generator which will result in creation of a large FME area and DCPD has engaged a firm which previously performed work on a turbine at the plant to perform the generator and the associated FME work during 2R21 as in the past this contractor has demonstrated its ability to successfully do this type of work.

➤ Observe Plant Health Committee (PHC) - Mr. McWhorter reported the PHC conducted a tactical meeting focusing on Operations which the DCISC representatives observed. The PHC reviewed the lists maintained of issues identified by operators and the role of the PHC was to assess the plans developed to address and resolve those issues. Mr. McWhorter reported the discussion by the PHC was detailed and focused on operational safety and additional follow up was initiated where required.

➤ Management Observation Program - Mr. McWhorter reported the fact-finding team reviewed the change in focus of this program which is now intended to get first-line supervisors into the plant with their workers and to document their observations in quarterly Operations Review Meetings (ORM) facilitated by a departmental performance improvement coordinator and to develop corrective actions if needed. The role of DCPD managers and directors is now to define how often the first-line supervisors go out into the plant and to participate in the ORMs and be responsible to review the results of the ORMs and determine if a focus area exists across departments.

- Flow Accelerated Corrosion (FAC) Program - Mr. McWhorter stated flow accelerated corrosion of piping can occur where high temperature mixed fluid flow results in the fluid with the highest concentration of steam and water causing carbon steel pipe to corrode. He reported DCPD has replaced a great deal of piping which was subject to FAC with alloy piping which is not susceptible to FAC. DCPD is currently replacing the polisher piping to eliminate FAC and generally the inspection activity for FAC during refueling outages is declining. Mr. McWhorter reported there were no unsatisfactory results from the 27 inspections performed for FAC during 1R21.
- Direct Current (DC) Power Systems - Mr. McWhorter stated the DC Power System consists of batteries, chargers and inverters and all were found to be in satisfactory condition. He reported that it is unclear at present how long DCPD will be required to maintain the DC Power System following cessation of operations as the system is required to support spent fuel pool operations and other station equipment and instrumentation, as the DC Power System provides power in the event offsite power or power from the emergency diesel generators is lost. Mr. McWhorter reported DCPD is presently assessing which systems will be required after cessation of generation operations.
- Meet with DCPD Officer - Dr. Lam reported during his meeting with Senior Vice President and Chief Nuclear Officer Mr. Jim Welsch they discussed Mr. Welsch having recently joined the DCDEP and the effect of the PG&E bankruptcy filing on budget and employee morale at DCPD. Dr. Lam reported Mr. Welsch confirmed there has been no effect from the bankruptcy on the budget for DCPD's operations but future budgets may require review by the assigned bankruptcy judge. **Dr. Lam reported the information he received in this meeting indicated there has been no adverse effect to date on morale at DCPD as a result of the bankruptcy but he suggested the DCISC should continue to review this issue.**
- Control Room Observation - during Dr. Lam's meeting with Mr. Welsch, Consultant McWhorter stated he visited the Control Room and found it in neat and orderly condition and he observed that the communication that was taking place in the Control Room was conducted in a formal manner, employing three-way communication techniques.

Following Mr. McWhorter's presentation, Ms. Sherry Lewis of Mothers for Peace was recognized. Ms. Lewis asked several questions as follows. In response to Ms. Lewis' question on the table used by Mr. McWhorter to describe heat load limitations for high burn-up fuel assemblies, Mr. McWhorter stated these data are based upon how much of the fuel has been burned in the reactor and accordingly how long that assembly must remain in the spent fuel pool and the location it can occupy within a MPC in accordance with heat transfer requirements. In response to Ms. Lewis' question concerning Unit 1 vessel weld inspections in 2005 and 2013 Mr. McWhorter replied there was no growth observed for indications when 2005 results were compared to 2013 results and he confirmed in 2013 16% of the welds in certain locations, which locations were not reviewed by the DCISC fact-finding team, were not inspected due to problems with the robotic inspection device. Dr. Budnitz explained in response to Ms. Lewis query that for an exemption to be made to the ASME Code a broad community of experts must agree on the specific criteria including certain material properties to define the basis for that

exemption and each individual exemption requires a demonstration by both the licensee and the independent experts, metallurgists in the case of the vessel weld exemption, and review by the NRC that the defined basis is met. **Dr. Lam stated that the DCISC should schedule further review during fact-finding of the exemption request and the basis for its approval.** Mr. McWhorter observed that much of the applicable documentation is available within the NRC's system. In response to Ms. Lewis' observations about the FME results during 1R21 Dr. Budnitz observed having foreign material in a circulating water system is not a good thing but during 1R21 the FME Program worked such that foreign material was discovered and removed before it could be introduced into circulating water and he observed the three events described by Mr. McWhorter during his report were distinct occurrences in separate locations. In response to Ms. Lewis' concern about training, Mr. McWhorter replied the DCISC has plans to further review changes to supplemental worker training during outages and Dr. Budnitz observed some supplemental outage workers are nuclear professionals while others are engaged from local hiring halls and may have little or no nuclear experience but he observed no supplemental workers are allowed to go into the power plant without having received training on nuclear-related practices. Dr. Lam observed the bankruptcy filing by PG&E and PG&E's legal obligation to give notice before that filing raised some concerns in the contractor community on whether payment would be forthcoming and Dr. Lam speculated this may have had an adverse effect on the time available for temporary outage worker training. In response to Ms. Lewis' inquiry about MPC current available inventories at DCPD Dr. Budnitz replied that it is the DCISC's understanding that there are at present no MPCs available at DCPD to be loaded with spent fuel. Dr. Budnitz observed that should DCPD make its decision, following receipt of responses to its request for proposals to change the MPCs it has used in the past and thereby to take advantage of certain design changes including, but not limited to, MPCs with a higher capacity, NRC approval for such a licensing change will be required and obtaining that approval would not be a quick process. Dr. Lam stated that PG&E's estimate of two years to go through the licensing process for new MPCs was in his view exceptionally optimistic. Ms. Lewis stated it was her belief that PG&E may be purposefully postponing a decision.

Dr. Gene Nelson of Californians for Green Nuclear Power was recognized. Dr. Nelson reported that in the past he has been employed as a temporary outage worker at DCPD and he confirmed that he was provided training, which included information on avoiding events which would lead to foreign material being introduced into a system before there was any opportunity to do any work at the plant.

Upon a motion made by Dr. Budnitz, seconded by Dr. Peterson, the April 16-17, 2019 Fact Finding Report was accepted and its transmittal to PG&E authorized.

The Chair then requested Consultant Wardell to report on a fact-finding visit to DCPD on May 8-9, 2019 with Dr. Peterson. Mr. Wardell stated topics reviewed with PG&E during that visit included the following:

- Meeting with DCPD Officer - Senior Vice President and Chief Nuclear Officer Mr. Jim Welsch - Mr. Wardell reported the DCISC representatives discussed with Mr. Welsch some of the improvements in security including the elimination of the outer vehicle inspection

station, for which approval was received from the NRC, and the matter discussed earlier in the meeting by Mr. Hamzehee concerning the pending request to remove the Intake Structure and areas in proximity from the vital protected area. The DCISC fact-finding team reviewed the plant's impressive performance during the NRC's Force-on-Force Inspection. Mr. Welsch also discussed with the fact-finding team the bankruptcy filing which Mr. Welsch reported was principally motivated to facilitate protection of the company from the costs of recent wildfires but has not affected the budget for DCP. Mr. Wardell reported that the decision to terminate certain capital projects was made before the bankruptcy filing and those decisions were unrelated to the bankruptcy matter.

➤ Institute of Nuclear Power Operations (INPO) Observation of Operations - Mr. Wardell reported this observation by INPO of the Maintenance, Engineering and Operations organizations was conducted in advance of the August 2019 full evaluation by INPO and included observation of the actions of operators in the Control Room; review of clearance performance when components are taken out of service for maintenance; review of infrequently performed evolutions; review of a Containment spray pump event; and drain down and mode changes to startup during the latter stages of an outage. Mr. Wardell reported this INPO observation yielded very positive results with a few minor areas identified for improvement.

➤ Configuration Management Program - Mr. Wardell reported the Configuration Management Program ensures that the plant's components and configuration match the as-built drawings and the design requirements. He reported after a refueling outage there are modifications and projects performed in the plant on equipment and components and it takes some time for the as-built drawings to be integrated into the Configuration Management Program's database. Mr. Wardell reported the performance indicators for the Program were mostly in Green status with two currently in White status based on activities stemming from the 1R21 outage. He stated the DCISC fact-finding team found the Configuration Management Program to be satisfactory.

➤ Wireless Information Technology (IT) in the Powerblock - Mr. Wardell reported the Powerblock consists primarily of the Turbine and the Auxiliary Buildings and some years ago DCP began to implement a wireless policy to facilitate data collection and transmission within the Powerblock. However, these efforts were placed on hold after issuance of the Joint Proposal and following a scoping analysis the wireless technology project was found to be too complex and expensive. Mr. Wardell confirmed this item has been closed for DCISC review on the Open Items List.

➤ High Pressure Injection (Safety Injection) System - this system is also known at DCP as the Safety Injection System and the DCISC representatives met with the system engineer, reviewed the system and piping diagrams, and received an explanation of its operation as a part of the Emergency Core Cooling System used in the event of a LOCA to provide water to cool the core. Mr. Wardell reported the system has double redundancy and is seismically designed as required for a safety-related system. The DCISC team toured the Safety Injection System pump rooms with the system engineer and found them to be clean and orderly. He reported the system health is in Green status for both units.

- Professional Development of DCPD Employees - Mr. Wardell reported in recognition that many employees will lose employment at DCPD upon the planned cessation of operations, DCPD has opened its Employee Resource Center to assist employees to explore opportunities and options including retirement, continuation of their careers including what Mr. Wardell described as a generous tuition assistance plan, opportunities in the local area in government or the private sector, and for employment at other nuclear facilities or at DCPD during its decommissioning period. Mr. Wardell stated the fact-finding team found the Employee Resource Center to be very effective in providing assistance to DCPD employees.
- Meet with NRC Senior Resident Inspector - the DCISC representatives met with Mr. Chris Newport, the NRC's Senior Resident, and with the Director for the Division of Reactor Projects for NRC Region IV and discussed the history, organization and role of the DCISC and issues related to emergency preparedness.
- California Independent System Operator (CAISO) Load Reductions - Mr. Wardell reported the DCISC team reviewed the agreements and protocols in place between DCPD and the CAISO that establish communication channels for nonemergency power reduction by DCPD when required by the CAISO. Mr. Wardell stated such reductions do not constitute load following. He reported DCPD and the CAISO have agreed on a two-hour notice requirement for reductions of between 35 and 20MW and a twelve-hour notice requirement for power reductions by DCPD of 200MW or greater, with DCPD having the option to determine which unit to ramp to achieve the requested reduction. Mr. Wardell stated that most such requests are not expected to result in a reduction of $\geq 50\%$ of the power plant's generation capacity. He reported, to date, the CAISO has not made any requests for DCPD to curtail power production. Mr. Wardell stated the fact-finding team found the program and the communication protocol to be effective to accomplish load reduction on an occasional basis if necessary.
- Notification Review Team Meeting - the DCISC representatives observed a meeting of the Notification Review Team. Notifications are the electronic documents used by personnel to document problems in the plant. Approximately 22,000 Notifications are created each year with approximately 50-100 Notifications created daily during a non-outage period. Mr. Wardell reported all Notifications are dispositioned based upon their significance and significant issues are reviewed the same day they are received by work control personnel and by the Control Room shift manager. Other Notifications are processed the following day by the Notification Review Team using One Note, a collaborative computer program which Mr. Wardell described as an effective tool. The Corrective Action Review Board selects and reviews significant Notifications each week and performs a high level review for these Notifications. Mr. Wardell stated the fact-finding team concluded the Notification Review Team is an effective and efficient organization.
- Emergency Response Organization (ERO) Muster Meeting - the DCISC representatives met with and observed a muster meeting of one of the four ERO teams. Each ERO team consists of approximately 70 persons and one team is on call for response at all times and the four teams rotate the on-call status every two weeks. Each team is required to maintain proficiency training and this training is conducted during the beginning of each team's two-week on-call period during what are termed ERO muster meetings. During these meetings the teams receive

information on updates to procedures and technologies and information on operating experience from other nuclear stations. Each meeting also includes a dynamic learning activity. Mr. Wardell stated the muster meeting observed by the DCISC fact-finding team was effective and professional and included good discussion by the team members.

➤ Workplace Seismic Safety - Mr. Wardell reported workplace seismic safety includes ensuring items such as furniture are secured in the plant in a manner that they cannot fall, move or otherwise block passageways or injure personnel and thereby impede their ability to respond to events in the plant. He reported both PG&E's corporate offices and DCPD have standard requirements for bracing furniture and the DCISC has been tracking performance in this area for some time and has frequently found items which were unsecured or which were secured improperly. During this fact-finding visit two instances of unsecured furniture were found in the radiation control area equipment room and in the new Employee Resource Center. Mr. Wardell reported that Notifications were immediately created for both areas and the DCISC representatives concluded the Workplace Seismic Safety Program has been implemented with partial effectiveness and during the fact-finding they discussed the program with Mr. Tom Baldwin who serves as the program manager.

Dr. Gene Nelson of Californians for Green nuclear Power was recognized following Mr. Wardell's report. Dr. Nelson remarked that he has seen misleading statements that DCPD should be considered to operate in load following mode but he observed that if California had a rationally designed loading order, which he stated it does not, there would be no need for such consideration.

Ms. Sherry Lewis of Mothers for Peace was recognized. Ms. Lewis commented on the lack of mention of issues with the fire doors in Mr. Wardell's report and Mr. Wardell responded he reported on that matter in his previous fact-finding report during the meeting and that the efforts to repair the fire doors are proceeding in a satisfactory fashion.

Upon a motion by Dr. Lam, seconded by Dr. Peterson the May 8-9, 2019 Fact Finding Report was accepted and its transmittal to PG&E and inclusion in the Committee's 29th Annual Report were authorized.

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

Mr. Garcia reported he would review the proposed scheduling of Committee activities earlier in this meeting and confirm or, if necessary, propose changes in the dates selected by the Members.

Dr. Budnitz expressed the thanks of the Committee to the technicians of AGP Video who are responsible for audio and visual recording and livestreaming of the DCISC's meetings and to Mr. Rathie and Ms. Denise Righetti of the Committee's Legal Counsel's office for their efforts in support of the Committee's public meetings. The Chair also expressed the thanks and appreciation of the DCISC to the members of the public who attended and participated in this public meeting.

XXVI ADJOURNMENT OF NINETY-THIRD PUBLIC MEETING

There being no further business, the ninety-third public meeting of the Diablo Canyon Independent Safety Committee was adjourned by its Chair Dr. Robert J. Budnitz at 2:40 P.M.

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

MEETING DATE:	October 23, 2019
AGENDA ITEM:	V-A
AGENDA TITLE:	DCISC 29th Annual Report on Safety of Diablo Canyon Operations; July 1, 2018 - June 30, 2019

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 2018-2019 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 twenty-ninth 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 2018-2019 Twenty-Ninth 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

**TWENTY-NINTH ANNUAL REPORT ON THE SAFETY OF
DIABLO CANYON NUCLEAR POWER PLANT OPERATIONS**
OUTLINE

July 1, 2018 - June 30, 2019

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 - 3.3. Learning Services Department Performance
 - 3.4. National Fire Protection Association 805 Program
 - 3.5. DCISC Member Meet with DCPD Director
 - 3.6. Operating Experience Programs
 - 3.7. Meteorological Information and Dose Assessment System
 - 3.8. Chemistry Department Performance
 - 3.9. Reactor Coolant System Health
- 4.0 Conclusions
- 5.0 Recommendations
- 6.0 References

D.3 Report on Fact Finding Meeting at DCPD on September 5-6, 2018

- 1.0 Summary
- 2.0 Introduction
- 3.0 Discussion
 - 3.1. Observe Plant Health Committee Meeting
 - 3.2. Control Room Simulator Status
 - 3.3. Digital Control Systems Status

- 3.4. Vibration Monitoring Program
 - 3.5. Observe Corrective Action Review Board Meeting
 - 3.6. Observe Readiness Review Board Meeting
 - 3.7. Meet with NRC Senior Resident Inspector
 - 3.8. Fire PRA Upgrade and Status of the PRA Plant-Response Model
 - 3.9. Meet with Jan Nimick, Station Services Director
 - 3.10. Human Performance Update
 - 3.11. Meet with San Luis Obispo County Office of Emergency Services
 - 4.0 Conclusions
 - 5.0 Recommendations
 - 6.0 References
- D.4 Report on Fact-finding Meeting at DCPD November 7-8, 2018
- 1.0 Summary
 - 2.0 Introduction
 - 3.0 Discussion
 - 3.1. Meet with NRC Resident Inspector
 - 3.2. Meet with DCPD Officer
 - 3.3. Tracking and Resolution of INPO Areas for Improvement
 - 3.4. Health of Reactor Coolant Pumps and Seals
 - 3.5. Observation of Response to Fire Alarm in Administration Building
 - 3.6. Safety Injection System Health
 - 3.7. Maintenance Department Performance
 - 3.8. Seismic Qualifications of Switchgear Room Walls
 - 3.9. Decommissioning Planning
 - 3.10. Benchmarking Programs
 - 3.11. Preventative Maintenance Optimization Project
 - 3.12. Observation of Emergency Response Organization Muster Meeting
 - 3.13. Emergency Planning
 - 4.0 Conclusions
 - 5.0 Recommendations
 - 6.0 References
- D.5 Report on Fact-Finding Meeting at DCPD on December 4-5, 2018
- 1.0 Summary
 - 2.0 Introduction
 - 3.0 Discussion
 - 3.1. Transporting High-Level Spent Fuel
 - 3.2. QA Corrective Actions
 - 3.3. Operations Performance Indicators
 - 3.4. Engineering Excellence Plan
 - 3.5. Delivering the Nuclear Promise
 - 3.6. Spent Fuel Pool Bridge Crane
 - 3.7. Meet with NRC Senior Resident Inspector
 - 3.8. Meet with Senior Director Jan Nimick
 - 3.9. Component Health Monitoring for Preventive Maintenance Optimization

- 3.10. Refueling Outage 1R21 Plans
 - 3.11. Decommissioning Waste Disposal
- 4.0 Conclusions
- 5.0 Recommendations
- 6.0 References

- D.6 Report on Fact Finding Meeting at DCPD on January 23-24, 2019
 - 1.0 Summary
 - 2.0 Introduction
 - 3.0 Discussion
 - 3.1. Meet with Nuclear Regulatory Commission (NRC) Senior Resident Inspector
 - 3.2. Health of Large Motors
 - 3.3. NRC Triennial Fire Protection Inspection Results
 - 3.4. Refueling Outage 1R21 Safety Plan and Safety Schedule
 - 3.5. Observe Corrective Action Review Board
 - 3.6. Quality Verification 2018 Audits and 2019 Audit Plan
 - 3.7. Health of Emergency Diesel Generators
 - 3.8. Licensed Operator Staffing Update
 - 3.9. Cause and Corrective Actions for Unit 2 Trip
 - 3.10. Meet with DCPD Officer
 - 4.0 Conclusions
 - 5.0 Recommendations
 - 6.0 References

- D.7 Report on Fact Finding Meeting at DCPD on March 18-19, 2019
 - 1.0 Summary
 - 2.0 Introduction
 - 3.0 Discussion
 - 3.1. Meet with NRC Senior Resident Inspector
 - 3.2. Meet with DCPD Officer
 - 3.3. FLEX Equipment Safety Related Designation
 - 3.4. Long Term Seismic Program Update
 - 3.5. Review Outage 1R21 Performance
 - 3.6. Equipment Reliability Process Update
 - 3.7. Door Life Management Program Update
 - 3.8. Cyber Security for Digital Control Systems
 - 4.0 Conclusions
 - 5.0 Recommendations
 - 6.0 References

- D.8 Report on Fact Finding Meeting at DCPD on April 16-17, 2019
 - 1.0 Summary
 - 2.0 Introduction
 - 3.0 Discussion
 - 3.1. Meet with NRC Senior Resident Inspector
 - 3.2. Future Movement of Spent Fuel

- 3.3. DC Power Systems
 - 3.4. Performance Improvement
 - 3.5. Foreign Material Exclusion Programs
 - 3.6. Attend Plant Health Committee
 - 3.7. Management Observations
 - 3.8. Flow Accelerated Corrosion Program
 - 3.9. In-Service Inspection and Relief Requests
 - 3.10. Control Room Tour/Observations
 - 3.11. Meet with DCPD Officer Jim Welsch
 - 4.0 Conclusions
 - 5.0 Recommendations
 - 6.0 References
- D.9 Report on Fact Finding Meeting at DCPD on May 8-9, 2019
 - 1.0 Summary
 - 2.0 Introduction
 - 3.0 Discussion
 - 3.1. Meet with DCPD Officer, Jim Welsch
 - 3.2. INPO Operations Observations
 - 3.3. Professional Develop Opportunities for DCPD Employees
 - 3.4. Wireless IT in the Powerblock
 - 3.5. High Pressure Injection (Safety Injection) System
 - 3.6. Configuration Management
 - 3.7. Meet with NRC Senior Resident Inspector
 - 3.8. CAISO Load Following
 - 3.9. Notification Review Team Meeting
 - 3.10. Emergency Response Organization Muster Meeting
 - 3.11. Workplace Seismic Safety
 - 5.0 Recommendations
 - 6.0 References
- 6.0 References
- E. Record of DCISC Tours of DCPD
- F. DCISC Open Items List
- G. DCISC Public Contacts
 - G.1 DCISC Telephone/Correspondence Log
 - G.2 DCISC Correspondence
 - G.3 Comments Received at Public Meetings
- H. 2018 Nuclear Decommissioning Cost Triennial Proceeding – Related Documents

- I Past DCISC Recommendations and PG&E Responses
- J. DCISC Informational Brochure
- K. Glossary of Terms

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	October 23, 2019
AGENDA ITEM:	IV-B
AGENDA TITLE:	Update on Financial Matters and DCISC Activities During 2019-2020

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 remainder of 2019 and for 2020.

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 2019-2020

July 23-24, 2019 Fact-finding Meeting (PFP, RDM)

1. Refueling Outage 1R21 Issues
2. Annual Radiological Release Report and Annual Radiological Environmental Monitoring Report
3. Training Program for Temporary Outage Workers
4. Individual Radiation Exposures During Outages
5. Meet with DCPD Officer
6. Recent Modifications to Reactor Coolant Pump Vibration Monitoring Systems
7. Safety/Security Interface Program
8. Meet with Nuclear Regulatory Commission (NRC) Resident Inspector
9. Buried Tanks and Piping Program
10. Systems Engineering Department Update

August 21-22, 2019 Fact-finding Meeting (PL, RFW)

1. Meet with Nuclear Regulatory Commission (NRC) Senior Resident Inspector
2. Operational Decision Making
3. Quality Verification Assessment of Abnormal Operations Procedures
4. Spent Fuel Management
5. Containment Spray System
6. Safety Systems Functional Failures
7. Refueling Outage 2R21 Preview
8. Meet with DCPD Site Vice-President Paula Gerfen
9. Nuclear Safety Culture
10. 2019 World Association of Nuclear Operators Evaluation Results
11. Meet with San Luis Obispo County Director of Emergency Services

September 11-12, 2019 Fact-finding Meeting (RJB, RDM)

1. Operations Shift Turnover Briefing
2. As Low As Reasonably Achievable (ALARA) Review Committee Meeting
3. FLEX Program
4. Safety Fair Observation
5. Crane Program
6. Reactor Coolant Pump Turning Vane Bolt Cracking
7. Probabilistic Risk Assessment Programs
8. Condensate System
9. Meet with Nuclear Regulatory Commission (NRC) Senior Resident Inspector
10. Refueling Outage 2R21 Safety Plan
11. Single Point Vulnerabilities Program
12. Employee Retention Program
13. Meet with DCPD Officer

October 23-24, 2019 Public Meeting

1. State of the Plant including Key Events, Highlights, Organizational Changes and Station Activities since DCISC's June 2019 Public Meeting
2. Plans for Future Staffing through the Cessation of Operations; Including Current Staffing Numbers and Trends, Recruitment of New Employees, Results of the Tranche 2 Retention

- Agreement Enrollment, and Future Professional Development Opportunities
- 3. Committee Comments and Receive Comments from Members of the Public Regarding a Potential Role for the DCISC to Review Nuclear Fuel-Related Issues After Expiration of the DCPD Operating Licenses
- 4. Update on the Status of NRC Performance Indicators, Licensee Event Reports, NRC Inspection Reports and Notices of Violation, Issues Raised by NRC Resident Inspectors, and Major Regulatory Issues (Open Compliance Issues and License Action Requests).
- 5. Decommissioning Planning Update
- 6. Current Status of Programs that Monitor Human Performance and Trends in Human Performance
- 7. Update on Plans for Relicensing of the Independent Spent Fuel Storage Facility

November 6-7, 2019 Fact-finding Meeting (RJB, RFW) (Proposed Agenda)

- 1. Meet with NRC Senior Resident Inspector
- 2. Meet with DCPD Officer
- 3. Reactivity Management (last reviewed April 2018)
- 4. System Review: Containment Structure (last reviewed September 2016)
- 5. Plant Health Committee meeting
- 6. Engineering Excellence Plan (last reviewed December 2018)
- 7. August 2019 WANO evaluation report
- 8. Plant Tour: 2R21 outage activities and observe work in progress
- 9. View Recorded September 3, 2019 Listening and Learning with Jim Welsch, Paula Gerfen, and CEO Andy Vesey - perhaps during lunch.
- 10. Discuss the following for appropriateness:
DCPD experienced two significant avoidable issues during Refueling Outage 1R21 which were caused or exacerbated due to ineffective implementation of its Corrective Action Program. These issues were Reactor Coolant Pump seal leakage and Polar Crane Trip Reset. Although neither issue was a major safety concern, each increased the risk of an accident. The DCISC believes it prudent for DCPD to examine its Corrective Action Program, including corrective action effectiveness reviews, for ineffective implementation extent of condition.
- 11. Update on the results of the following:
QV Assessment 191420002, OP AP-34 Series Fire Protection Abnormal Operating Procedures - results of Operations Procedure Group review of the 91 P-34 Series fire protection procedures.

December 10-11, 2019 Fact-finding Meeting (PFP, RDM)

January 29-30, 2020 Fact-finding Meeting (PL, RFW)

February 12-13, 2020 Public Meeting

March 17-18, 2020 Fact-finding Meeting (RJB, RDM)

April 15-16, 2020 Fact-finding Meeting (PL, RFW)

May 12-13, 2020 Fact-finding Meeting (PFP, RDM)

June 24-25, 2020 Public Meeting

July 14-15, 2020 Fact-finding Meeting (PFP, RFW)

August 19-20, 2020 Fact-finding Meeting (PL, RDM)

September 22-23, 2020 Fact-finding Meeting (RJB, RFW)

September 30 – October 1, 2020 Public Meeting

DCPP 2019-2020 Key Dates

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

January 27, 2020

June 15, 2020

November 16, 2020

Refueling Outages

1R21 February 10 – March 15, 2019

2R21 September 29 – December 8, 2019

1R22 October 4 – November 13, 2020

Emergency Preparedness

TBD

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	October 23, 2019
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AGENDA ITEM:	IV-C
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AGENDA TITLE:	Consideration of Issues on the Open Items List
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CONSENT []	ACTION [X]	INFORMATION [X]
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Staff Summary: It is anticipated that the committee will hold discussion concerning the items appearing on its Open Items List prepared by Committee Consultant Ferman Wardell.

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

Diablo Canyon Independent Safety Committee Open Items List – 2019-2020

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.	4/15FF 5/17FF	As necessary
CO-8	M	Monitor all reactor trips – automatic and manual (review trip LERs at public meetings). [Reviewed Dec. 2, 2018 Unit Reactor 2 trip and root cause at 12/18FF, 1/19FF, 3/19FF, <i>and 6/19PM</i> – satisfactory.]	1/19FF 3/19FF <i>6/19PM</i>	Post-trip FFs & PMs
CO-9	F	Reactivity Management – review every 18 months. [Reviewed Reactivity Management 5/16FF and 4/18FF – satisfactory.]	List at end of OIL 4/18FF	Regularly <i>11/19FF</i>
CO-10	M	Mispositioning Errors (Equipment Status) – monitor the status of mispositioning errors and actions to resolve. [Reviewed at 1/15FF – satisfactory.] [Reviewed QV assessment of 2R20 outage. Some mispositioning issues. Follow up on resolution.] [Reviewed 7/18FF – satisfactory.]	11/15FF 4/18FF 7/18FF	<i>12/19FF</i>
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 Dept. performance in 12/18FF – satisfactory.]	8/16FF 12/17FF 12/18FF	<i>12/19FF</i>
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 Dec. 2017 FF. Review Annually.] [Reviewed at 5/19FF – satisfactory.]	6/16PM 3/16FF 12/17FF 5/19FF	<i>12/19FF PFP</i>
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.]	3/18FF 1/19FF <i>9/19FF</i>	<i>4Q20FF</i>
CM		Conduct of Maintenance (CM)		

CM-7	I	Review PG&E's progress in complying with (1) the amendment to 10CFR50.55a, which provides the requirements for ISI of containment structures (degradation) and (2) ASME Code requirements for steel liner weld inspections.	7/12FF 8/17FF	1R21 & 2R21 12/19FF
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 [Reviewed on-line maintenance risk 4/16FF and 4/18FF – satisfactory.]	See list at end of OIL	Regularly
CM-13	M	Review Maintenance Department performance measures, staffing, etc. approximately annually.	9/17FF 11/18FF	12/19FF
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 meetings. [Note: next action changed to "Regularly" and noted in table at the end of the OIL.] Ferman or Rick will check to see what other meetings would be of interest to the DCISC. {Are there other regular meetings the DCISC should attend?}	See list at end of OIL	Regularly 11/19FF
EN-31	F	The fact-finding team received an overview of the [Engineering Excellence] plan and should follow up in the future with a more detailed review of selected elements of the plan.	8/17FF 12/18FF	11/19FF
HP		Human Performance: Human Errors and Improving Safety & Efficiency of Plant Performance		
HP-1	M	Review human performance & human behavior items (including error reduction programs, HP PIs, aberrant behavior statistics, FFD, stress reduction programs, Personnel Accountability Policy, Human Performance Steering Committee & Subcomm, Centers of Excellence, Org. Development). [Review biennially operator aging, physical fitness, "no solo" issues, attention enhancement, stress management, & incentives for operator focus. Reviewed Ops Human Performance at 8/16FF – satisfactory.] [Reviewed human performance 9/18FF – excellent.]	3/15FF 8/16FF 9/18FF	2Q20FF 10/19PM
HP-25	M	Further observations and improvements in the Management Observation Program should be reviewed by DCISC. [Reviewed 4/19FF – satisfactory.]	7/17FF 4/19FF	1 or 2Q21FF
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). [Reviewed ECP 10/17FF – sat.]	10/17FF 10/18PM 8/19FF	3Q20FF
PI		Performance Improvement Programs		
PI-1		DCCP Performance Improvement Programs: Corrective Action, Self-Assessment, Operating Experience [and line use of OE], Benchmarking, etc. Programs reviewed are listed with dates at the end of the Open Items List.] [Observed CARB Mtg. 5/18FF – satisfactory.]	See list at end of OIL	At least once per year

EP	Emergency Preparedness (EP)			
EP-2	M	Attend and observe DCPD 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.	2/17PM 8/18FF 11/18FF	Next evaluated exercise
EP-3	M	Emergency preparedness during decommissioning. [Met with SLO OES 9/18FF – satisfactory <i>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.]</i>	10/18PM 8/19FF	2/20PM
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 DCPD study of loss of ASW on core damage frequency.	8/16FF 9/17FF 9/18FF 9/19FF	4Q20FF RJB
RA-6	F	Monitor Seismic Fragility Analysis progress. [Reviewed at 9/17 FF – satisfactory.] [Review after next submittal to NRC.] Review Seismic PRA annually. [Reviewed Seismic PRA 8/16FF – satisfactory.] [Review DCPD seismic PRA April 2018 submittal.]	8/16FF 9/17FF	2Q20FF 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. [Reviewed at 1/17FF – satisfactory.] [2/19 NSOC conflicted with PM.]	11/15FF 3/17FF	Next meeting
NS-9	M	Monitor DCPD's program to track INPO Areas for Improvement. Review with DCPD Coordinator. [Reviewed results of Aug/Sep INPO evaluation – satisfactory.] [Review results of August 2019 INPO evaluation 3Q19FF]	5/19FF 8/19FF	11/19FF
RP		Radiation Protection (RP)		
RP-3	M	Regularly review outage RP performance. [Reviewed 1R21 outage performance – satisfactory.]	6/18PM 3/19FF	2R21 12/19FF
RP-12	M	Review annual DCPD radioactivity release report each year. Review at Summer or Fall FFs. [Reviewed radiation release reports 7/18FF – satisfactory.]	7/18FF 7/19FF	3Q20FF
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.	1/19FF 8/19FF	11/19FF 1Q20FF
QP-9	F	Software QA Program - [Reviewed at March 2018 FF – satisfactory.]	See list at end of OIL	Regularly
NF		Nuclear Fuel Performance (NF)		
NF-9	M	Nuclear Fuel Performance & Issues (review after RFOs). [Reviewed at 11/16FF – satisfactory.] [2/17PM. [Reviewed 2R20 results at 4/18FF – no fuel problems noted.] [Reviewed nuclear procurement process 7/18FF – satisfactory.]	6/14FF 7/17FF 7/18FF	Each RFO 12/19FF
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. [Reviewed at 1/16FF & on agenda for 2/16PM.] [Reviewed at 3/18FF – satisfactory.]	2/17PM 3/18FF	2/20PM
SE		System and Equipment Performance/Problems (SE)		
SE-26	M	Review reactor pressure vessel compliance status after next set of surveillance samples is analyzed and effective vessel lifetime projections are updated. [Reviewed 3/17FF – satisfactory.]	3/16FF 3/17FF 4/19FF	1R22 2R22
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, and 9/17FF – satisfactory.]	11/14FF 9/17FF	2R21 12/19FF
SE-40	F	Monitor the status of transformers & leakage, failures, corrective actions. Follow status of transformer protection barrier. [Barrier project placed on hold.] [Reviewed 5/18FF – satisfactory.]	See list at end of OIL	Regularly
SE-42	F	Safety System Functional Failures – review annually. [Reviewed at 9/15FF – much improvement – continue to monitor.] [Reviewed 3/22/17FF and 6/17FF – much improvement.]	6/17PM 8/19FF	4Q20FF
SE-49	F	Emergency Diesel Generators (EDGs) – [Reviewed at 1/19FF: U1 Green, U2 White.] [Review EDG Reliability Program at next EDG FF].	See list at end of OIL	Regularly
SE-52	F	Mr. Wardell reported the fuel handling equipment is being brought to a healthy status but the DCISC should continue to monitor these efforts with reference to any issues of obsolescence or problems obtaining replacement equipment [4/18FF: Fuel Handling Equipment worked well in 2R20.] [Reviewed improvements to SFP bridge crane – satisfactory. Close if 1R21 & 2R21 performance good.]	6/17PM 4/18FF 12/18FF	1R21 2R21 12/19FF , then close
SE-53	F	Monitor salt deposition on external equipment, systems, EDG, ventilation systems, transformers, etc. [Check with DCCP on data availability beforehand.] [Determine rate of salt deposition.] [Reviewed at 5/18FF, no flashover issues since 2013.]	4/15FF 7/16FF 5/18 FF	3Q20FF
SG		Steam Generator Performance (SG)		
SG-1	M	Results of inspections and tests occurring in outages 1R21 and 2R21.	10/18PM	Post-2R21 12/19FF
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 1R21 3/19FF – satisfactory.]	3/18FF 3/19FF	2R21 1R22 2R22 11/19FF
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 – satisfactory.]	8/19FF 9/19FF	Each RFO

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	Regularly RFOs 12/19FF
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.	7/16FF 5/18FF 7/19FF	4Q20FF
SEC-4	M	Review DCPD progress in implementing their cyber security program in compliance with NRC schedule. Implementation complete. [5/18FF: The DCISC should continue to review the Cybersecurity Program every two to three years.] [Reviewed digital control cyber security 3/19FF – satisfactory.]	6/18PM 2/19PM 3/19FF	1Q21FF
SF		Independent Spent Fuel Storage Installation – ISFSI (SF)		
SF-1		Monitor ISFSI operations, including cask transfer. Review following next campaign. [Reviewed ISFSI 7/18FF – satisfactory.] [Reviewed future movement of spent fuel 4/19FF – satisfactory.]	4/19FF 8/19FF	2Q20FF
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 [Reviewed at 12/16FF – satisfactory.] [Reviewed inspections 12/17FF – satisfactory.]	10/17PM 12/17FF 4/19FF	2Q20F
SF-3	M	Review the seismic adequacy of ISFSI in its license extension. Use latest seismic analysis.	6/18PM	10/19PM 2Q20FF RJB
SC		Seismic, Tsunami and Other External Events		
SC-3	M	Long-Term Seismic Program: review periodically. Review significant seismic events as they occur. Reviewed at 6/09 PM. [Reviewed 3/10 FF – progress satisfactory. Continue to monitor.] DCPD Seismic study reviewed 3/15 FF & to be presented by DCPD at 6/15PM. Shoreline Fault – follow activities and events with the Shoreline Fault. LTSP reviewed at 3/19FF – satisfactory.	6/15PM 11/15FF 8/16FF 3/19FF	1Q21FF 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. [Reviewed 5/19FF – overall satisfactory – but two examples of unsecured tall cabinets. Notifications written.]	2/16PM 5/18FF 7/18FF 5/19FF	12/19FF 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.]	7/17FF 11/17FF 1/19FF 3/19FF	1Q20FF
LD		Learning & Development Programs (LD)		
LD-3	M	Review non-license technical, operations & accredited training programs at least annually. [Reviewed Training for Temporary Outage Workers 12/14FF – satisfactory.]	12/14FF 7/19FF	2Q20FF

LD-6	F	Observe operator license, 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 plans 1/19FF – satisfactory.]	12/16FF 8/18 FF 1/19FF	3or4Q20 FF
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
BDB		Beyond Design Basis Events (e.g. Fukushima Event)		
BDB-6	F	DCPP FLEX Status – review status of progress on FLEX, including EASW screen plugging, SFP level instrumentation; SAMG, EDMG, EOP consolidation; portable instrumentation; operator actions; temporary connections; equipment storage. Review BDB & FLEX storage re: PPR & dosimetry. Review FLEX training. [DCISC should observe future FLEX training and FLEX overall. [Observed SFP level instrumentation and FLEX connection 5/18FF.] [3/19FF: DCPP determines FLEX is not safety related.]	3/19FF 7/19FF	Close to programs under EN- 19.
DEC		Decommissioning		
DEC-1	F	Review DCPP decommissioning plans periodically as a result of the Joint Proposal forced plant shutdown in 2025. Review the timing of spent fuel transfer from wet to dry storage and when the spent fuel pools are decommissioned the plant will lose the capability to open multipurpose canisters for inspection. DCISC should actively review the decommissioning plans for DCPD because of the potential impact on staffing and future options with respect to managing spent fuel. 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 DCPD. [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 DCPD 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.	1/17FF 10/17PM 3/18FF 10/18PM 11/18FF 2/19PM 10/19PM	10/20PM
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.	10/18PM 6/19PM	10/19PM
O		Other Items (O)		
O-1	F	Perform observations of evolutions (work processes) within the plant periodically. Continue with these about annually. [Observed Operations shift turnover brief.]	11/18FF 9/19FF	2Q20FF
2/16 PM 10		Public Meeting Items (PM) (Reference: Public Meeting Minutes Pages)		
2/16 PM 10	F	Permanent corrective action installing [4kV] solid-state relays will be completed during refueling outages 1R21 2R21. The fact-finding team concluded reasonable progress has been made but the DCISC should continue to monitor station progress with regard to the potential open phase conditions, which could affect plant safety systems. [Reviewed at 5/16FF – satisfactory. Continue to monitor.]	2/16PM 5/16FF	Post 1R21 & 2R21 12/19FF then close
Oct 2018 PM 7	F	In response to Consultant McWhorter's question, Mr. Jones reported tranche two has a second component involving retraining and Mr. Harbor reported documents regarding tranche two and enrollment therein will be made available to DCPD's workforce in July of 2019. Dr. Budnitz stated the DCISC will review the rollout of tranche two during the summer of 2019 and Mr. Jones and Dr. Budnitz agreed a presentation should be tentatively scheduled for the October 2019 DCISC public meeting.	10/18PM 9/19FF	Close

15	F	He [Budnitz] further stated his recommendation to the CPUC would be to clarify the Restated Charter to provide that the DCISC should continue in existence until all of the fuel is in storage at the ISFSI when the radiological risks will have diminished substantially. However, Dr. Peterson stated his belief that at this time there is no urgency to resolve the question and the Committee should engage in developing an analysis of what its role might be, how the Committee might change, and the various factors that should be considered in greater detail. He remarked that when all the fuel is transferred to the ISFSI, the scope of any DCISC review would be quite small compared to present and for this reason, more study should be undertaken before the question of clarifying the Restated Charter is raised with the DCISC's appointing officials or with the CPUC. Dr. Peterson stated he does not believe it to be timely for the DCISC to make a recommendation to the CPUC concerning a potential post-shutdown role for the DCISC as it is his belief that more work remains to be done before the DCISC will be in a position to make a fully informed determination and a good decision. Dr. Peterson recommended the Committee continue to consider the matter for a period of at least one year before asking for a decision from the CPUC or its appointing officials. As members serve three-year, staggered terms, he [Budnitz] commented the clarification should not be postponed until 2024-2025 when DCPD is scheduled to cease operations but should take place at least three to four years before, as the CPUC will likely require time to come to its decision. Dr. Budnitz stated that he believes there is agreement among all current Members on this schedule. In response to Dr. Budnitz' query as to whether Drs. Lam and Peterson shared Dr. Budnitz' opinion that the Committee's eventual request of the CPUC as to a post-shutdown role for the DCISC should be in the form of a recommendation, Dr. Peterson replied that he did not believe a recommendation should be made this year and more due diligence and systematic review should be undertaken and a summary prepared as to the scope of topics that might merit the Committee's review and how the Committee might be restructured, supported, funded and conduct its future activities but Dr. Peterson stated he believed a communication in the form of a recommendation would then be appropriate. Dr. Lam stated that while he supports seeking clarification, although he could be persuaded otherwise, he remains very hesitant to make a recommendation concerning the continuance of the DCISC beyond 2025. He observed that in making such a recommendation the Committee will already have answered in the affirmative whether it should continue to exist and Dr. Lam does not believe that is an issue the Committee Members should decide. He stated he did not support a proposal which might set forth a recommendation as to what shape or form the Committee might make a material contribution after 2025 and he continues to view such a proposal as self-serving although such a proposal might be appropriate as an appendix to a letter seeking clarification on the Restated Charter. Dr. Budnitz commented that such a letter might include separate attachments setting forth the individual Member's views. Dr. Peterson stated this discussion highlighted a number of actions the DCISC should now take and document in its Open Items List to develop a strong foundation for making a credible recommendation to the CPUC including looking at an alternative budget and structure for its fact-findings and public meetings and he commented a recommendation may not be necessary in context of a report seeking a decision that emerges out of condensing the discussion about a post-shutdown role for the DCISC. Dr. Budnitz reiterated his belief that the Committee should make a recommendation that it should continue in existence after the plant is shut down until the final transfer of fuel from the spent fuel pools to the ISFSI has taken place. [To be discussed at February 2019 PM.]	10/18PM 2/19PM 6/19PM	10/19PM then close
October 23-24, 2019 10/10/19		Public Meeting = Fact-Finding Meeting		

16	F	Dr. Budnitz commented that such a letter might include separate attachments setting forth the individual Member's views. Dr. Peterson stated this discussion highlighted a number of actions the DCISC should now take and document in its Open Items List to develop a strong foundation for making a credible recommendation to the CPUC including looking at an alternative budget and structure for its fact-findings and public meetings and he commented a recommendation may not be necessary in context of a report seeking a decision that emerges out of condensing the discussion about a post-shutdown role for the DCISC. Dr. Budnitz reiterated his belief that the Committee should make a recommendation that it should continue in existence after the plant is shut down until the final transfer of fuel from the spent fuel pools to the ISFSI has taken place.		
Feb 2019 PM 1	F	Mr. McWhorter reported the RCPs were in good health but an issue was identified with an area on the turning vane where other plants have experienced bolt cracking. The bolts used at DCPP have a larger diameter than those which have cracked but this issue will need to be investigated. <i>[Reviewed at 9/19FF – satisfactory] Close.</i>	2/19PM 9/19FF	Close
2	F	Mr. McWhorter reported the greatest impediment to faster removal of the fuel could be a site-specific, seismically-related, substantial expenditure required to be undertaken prior to cessation of operations as this could have budget implications for the safety of operations and the DCISC needs to be vigilant as to any impact on the safety of operations. Dr. Lam stated that the issue of whether or not there is some margin in the ten-year requirement for cooling time dictated by the plant's technical specifications was a subject worthy of further inquiry during future fact-finding.	2/19PM	Close
3	F	At that time [2013-2014] the Committee was told by PG&E that NRC regulation B.5.b requires four times the number of assemblies as the number of assemblies in final core offload to be within the spent fuel pool inventories, which number has changed for reasons Mr. Geesman stated he did not understand from 605 assemblies to 730 assemblies, but now appears to have stabilized at 760 assemblies. PG&E at that time was planning on a regular transfer campaign schedule that would maintain the 760 assemblies in each of the two spent fuel pools. Mr. Geesman stated the current PG&E plan would now allow 760 assemblies to become 1,300 assemblies. Dr. Lam replied that Mr. Geesman's remarks were very well received by the Committee and worthy of further inquiry.	2/19PM	12/19FF 2/20PM

6	F	Dr. Peterson remarked this [December 1, 2018 Unit 2 reactor trip caused by unusual grid conditions] is a serious issue and the DCISC has previously highlighted grid reliability as an issue for review as changes in generation in California have a good probability of changing grid reliability and while DCPD can survive trips, and grid conditions do not make the plant unsafe or unable to respond, events such that experienced on December 1, 2018 are not good and issues grid-related issues challenge the potential availability of offsite power. Mr. McWhorter observed that the plant performed as designed on December 1, 2018 and the operators performed as expected and this is not to be taken for granted and reflects positively on the station.	2/19PM	Close
9	F	Mr. John Geesman representing the Alliance for Nuclear Responsibility inquired as to the ramifications of the change in the remedial action scheme away from a low amperage condition and whether the conditions experienced on December 1, 2018 are being investigated by the California Independent System Operator (CAISO), the Federal Energy Regulatory Commission (FERC), and the North American Electrical Reliability Corporation (NERC). Drs. Budnitz and Peterson responded the DCISC would conduct a fact-finding with PG&E to review the root cause evaluation and to review with DCPD the questions posed by Mr. Geesman.	2/19PM	2/20PM
June 2019 PM 1	F	Dr. Peterson remarked that at the appropriate time, the DCISC will schedule a meeting with Mr. Guzzardi [SLO County Emergency Services Manager] and request him to make a presentation to the Committee, possibly at the DCISC's June 4-5, 2019 public meeting.	6/19PM 7/19FF	Close
2	F	<i>In response to Consultant Wardell's inquiry Mr. Petersen stated he would need to check and report back as to the highest dose received by any individual and the spectra of the dose received by workers during 1R21. Dr. Peterson stated that the topic of the types of tasks that generate the highest dose would be an appropriate topic for the DCISC during a future fact-finding. [This item reviewed at 7/19FF – satisfactory. Close.]</i>	6/19PM	Awaiting DCPD
3	F	<i>In response to Consultant McWhorter's inquiry concerning when a foreign material exclusion (FME) issue becomes a human performance issue Mr. Petersen reported that not all FME events are human performance-related but he remarked he would have to review plant procedures to provide a response to Mr. McWhorter's query, however, he remarked that human-related FME events are very rare and the Station-level threshold for same is quite high and generally involves significant damage.</i>	6/19PM	11/19FF
4	F	<i>Dr. Peterson observed the variable frequency drive motor is within the design basis for the crane and was most likely a modification made at some point and this would be a potential topic for DCISC review during fact-finding.</i>	6/19PM	12/19FF
5	F	<i>Mr. Peck stated DCPD does not 'own' the special expertise required to redesign the SPS logic and he offered to review with the DCISC during a future fact-finding the method of how the SPS logic functions to select the unit it will trip.</i>	6/19PM	Close
		<i>Mr. McWhorter recommended that while the FME Program is effective, the DCISC should follow up concerning FME training for temporary workers during a future fact-finding. [Training for temporary outage workers, including FMW, observed at 7/19FF.] Close.</i>	6/19PM 7/19FF	Close

Diablo Canyon Independent Safety Committee Open Items List – 2019-2020

DCPP Systems/Components Reviewed Periodically

4 kV – April 2018
 230 kV – Dec 2017
 500 kV – Dec 2017
 Aux Feedwater – Nov 2017
 Aux Saltwater – Sep 2017
 Aux Bldg Ventilation – Mar 2017
 Centrifugal Charging Pumps – Mar 2017
 Component Cooling Water – May 2017
 Compressed Air – Mar 2017FF
 Condensate – **Sep 2019**
 Containment Structure – Sep 2016
 Containment Spray – **Aug 2019**
 Control Room Simulator – Sep 2018
 Control Room Ventilation – April 2018
 Digital Systems – Sep 2018
 DC Power – Apr 2019
 EDG – Jan 2019
 High Pressure Injection (Safety Injection) – May 2019
 Plant Protection System – Nov 2017
 Radiation Monitoring – Jan 2018
 Radwaste Processing – Aug 2017
 Reactor Coolant – Aug 2018 [Review 4Q19]
 RCS Process Control System – Nov 2016
 Reactor Coolant Pumps – Nov 2018
 Refueling Equipment – Dec 2018
 RHR – Mar 2016
 Safety Injection Pumps Nov 2018
 Spent Fuel Pool – May 2018
 Steam Generators – Nov 2014

DCPP Programs Reviewed Periodically
ALARA – Sep 2019
 AOV – May 2018
 Benchmarking – Nov 2018
 Boric Acid Corrosion Control – Apr 2018 (review biennially)
 Buried Piping & Tanks – **Jul 2019**

Chemistry – Aug 2018
 Cranes – **Sep 2019**
 Configuration Management – May 2019
 Corrective Action – CARB Jan 2019
 Emergency Preparedness Exercises – Nov 2018
 Employee Concerns Program – Oct. 2017
 Equipment Environmental Qualification – Aug 2017
 Equipment Reliability – Mar 2019
 Excellence Plan – March 2018
 Fire Doors & Door Life Cycle Mgmt. Plan – Mar 2019
 Fire Protection (Non-NFPA-805) – Mar 2017
 Fire Protection (NFPA-805) – Aug 2018
FLEX Program – Apr 2019
 Flow Accelerated Corrosion – Apr 2019
 FME – Apr 2019
 In-service Inspection Program – Apr 2019
 Integrated Risk Assessment Program – Jun 2015
 Large Motors – Jan 2019
 Long-Term Capital Planning Process – Dec 2016
 Margin Management – Jan 2017
 MIDAS – Aug 2018
 Nuclear Fuel Program – Aug 2017
 On-Line Maintenance – Apr 2018
 Operating Experience – Aug 2018 (review biennially)
 Operability Assessment Program – Mar 2017
 Operational Decision Making – Apr 2015
 PRA Programs (non-seismic) – Sep 2017
 Performance Improvement – Apr 2019
 Performance Review Quarterly Meeting – May 2015
 Plant Health Committee – Apr 2019
 Reactivity Management – April 2018
 Safety-Security Interface – **Jul 2019**
 Self-Assessment – Sep 2016
 Single Point Vulnerabilities – **Sep 2019**
 Seismic PRA – Sep 2017
 Seismically Induced System Interactions – 5/17FF (review biennially)
 Software QA -- March 2018

October 23-24, 2019 Public Meeting
10/10/19

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

System Engineering – *Jul 2019*
Transformers, Large – May 2018
Trending Analysis – Jan 2014
Troubleshooting – Jan 2015
Tsunami Hazard Analysis – Sep 2017
Vibration Monitoring – *Jul 2019*

October 23-24, 2019 Public Meeting
10/10/19

FF = Fact-finding Meeting

PM = Public Meeting

Q = Quarter

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	October 23, 2019
AGENDA ITEM:	V-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 2019.

RECOMMENDED COMMITTEE ACTION: None, information item only.

May
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
5/2/19	DCL-19-042, DIL-19-009	Emergency Plan Implementing Procedure Update
5/2/19	DCL-19-039	Response to NRC Request for Additional Information Regarding "License Amendment Request 18-01, Request to Revise Emergency Plan Response Organization Staffing and Augmentation"
5/28/19	DCL-19-046	Withdrawal of Request for Exemption from Operator Written Examination and Operating Test

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
5/2/19	Diablo Canyon Nuclear Power Plant – Request for Exemption from Operator Written Examination and Operating Test – Request for Additional Information (EPID L-2019-LLE-0004)
5/10/19	Diablo Canyon Power Plant, Units 1 and 2 – NRC Integrated Inspection Report 05000275/2019001 and 05000323/2019001
5/23/19	Diablo Canyon Nuclear Power Plant, Units 1 and 2 – Regulatory Audit Plan for Audit in Support of the License Amendment Request for Proposed Changes to the Intake Structure Physical Security Classification (EPID L-2019-LLA-0029)
5/28/19	Request for Additional Information (Supplemental) – License Amendment Request (LAR) to Revise Emergency Plan Response Organization Staffing and Augmentation (EPID L-2018-LLA-0248)

D. PSRC Documents

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

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

Type	Doc. No.	Title
RCAs		There are no RCAs for this month.
ACE	SAPN 51022282	DA-Employee Injury – Broken Ankle
Eff. Eval		There are no Effectiveness Evals for this month.

May
List of Documents Transmitted Electronically

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

Date	Doc. No.	Title
		There is no QPAR for this month.
4/8/19	FileNet # 190150001	2019 Fitness for Duty, Access Authorization, and Personnel Access Data System Audit
5/15/19	FileNet # 190650002	2019 Fire Protection Audit
5/23/19	Quality Verification Assessment # 191420002	OP AP-34 Series Procedures
5/30/19		Quality Digest; Information You Can Use

G. Nuclear Safety Culture Monitoring Panel Reports

Date	Doc. No.	Title
5/23/19		Nuclear Safety Culture Review Report (December 1, 2018 – March 15, 2019)

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

Date	Doc. No.	Title
5/23/19	SAPN 50920942	STARS benchmarking PMT process - informal
5/30/19	SAPN 50932500	Vermont Yankee Decom Bnchmrk July 2017
5/30/19	SAPN 51004535	Exam Sec Cause Eval Informal Benchmark
5/30/19	SAPN 51027768	Informal Benchmark Report – Hatch Nuclear Power Plant
5/30/19	SAPN 50866979	FAC Program 2017 Self Assessment
5/30/19	SAPN 50986740	Status Control Self-Assessment
		There are no Quick Hit Self-Assessments this month.

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

Date	Doc. No.	Title
3/25/19		Nuclear Generation Operating Plan 2019 – 2023, No new updates this month.

May
List of Documents Transmitted Electronically

PPIR	5/23/19	Diablo Canyon Power Plant; Plant Performance Improvement Report Achieving Results; Data: April 2019
Station Initiative		
5/16/19		Diablo Canyon Power Plant (DCPP) Standards for Bracing Office Furniture, Cabinets, and Storage Racks, Revision 1

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
		There are no Significance Determination Process Calculations for this month.

N. Miscellaneous

Date	Title
5/6/19	Jim Welsch's Weekly Alignment Update
5/13/19	Jim Welsch's Weekly Alignment Update

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 201917	T+1 Performance Critique
	Week 201918	T+1 Performance Critique
	Week 201919	T+1 Performance Critique
	Week 201920	T+1 Performance Critique
	Week 201921	T+1 Performance Critique

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
6/13/19	DCL-19-049	Owner's Activity Report for Unit 1 Twenty-first Refueling Outage

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
6/3/19	(OUO) Diablo Canyon Power Plant, Units 1 & 2, NRC Inspection Report 05000275/2019201 and 05000323/2019201 (OUO)
6/10/19	Diablo Canyon Nuclear Power Plant, Units 1 and 2 – Withdrawal of Request for Exemption from Operator Written Examination and Operating Test (EPID L-2019-LLE-0004)
6/28/19	Diablo Canyon Nuclear Power Plant, Units 1 and 2 – Request for Relief from the Inservice Inspection Program Requirements of ASME Section XI, for the Steam Generator and Pressurizer Nozzle Inside Radius Sections (EPID L-2018-LLR-0138)

D. PSRC Documents (PSRC Minutes)

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

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

Type	Doc. No.	Title
RCAs	SAPN 51026389	Root Cause Evaluation Report – Degradation of MFP 1-1 Oil System
ACE		There are no ACEs for this month.
Eff. Eval		There are no Effectiveness Evals for this month.

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

Date	Doc. No.	Title
		There is no QPAR for this month.
6/13/19	FileNet #190840022	2019 Special Processes & Inservice Inspection/Inservice Testing Audit
7/2/19		Quality Digest; Information You Can Use

June
List of Documents Transmitted Electronically

G. Nuclear Safety Culture Monitoring Panel Reports

Date	Doc. No.	Title
5/23/19		Nuclear Safety Culture Review Report for the 1 st Period Report Dates of December 1, 2018 through March 15, 2019

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

Date	Doc. No.	Title
7/10/19	SAPN 50957675	Columbia Mock Board Trip Report
7/10/19	SAPN 50962312	INPO Ops Mgr WrkShp Insights
7/10/19	SAPN 51026657	Informal Benchmark Leadership Training
7/10/19	SAPN 51030302	Informal benchmark – ALARA Palo Verde
7/10/19	SAPN 50977558	QHSA SGI Program
7/10/19	SAPN 51012084	Perform QHSA NRC Procedure 71124.01
7/10/19	SAPN 51025561	Perform QHSA NRC Procedure 71124.02
7/10/19	SAPN 51025562	Perform QHSA NRC Procedure 71124.04

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

Date	Doc. No.	Title
3/25/19		Nuclear Generation Operating Plan 2019 – 2023, No new updates this month.
PPIR 6/27/19		Diablo Canyon Power Plant; Plant Performance Improvement Report Achieving Results; Data: May 2019
Station Initiative		There are no new Station Initiatives this month.
IPM		There are no IPMs this month.

J. INPO

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

June
List of Documents Transmitted Electronically

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
		There are no Significance Determination Process Calculations for this month.

N. Miscellaneous

Date	Title
	There are no miscellaneous documents for this month.

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 201922	T+1 Performance Critique
	Week 201923	T+1 Performance Critique
	Week 201924	T+1 Performance Critique
	Week 201925	T+1 Performance Critique
	Week 201926	T+1 Performance Critique

July
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

Date	LBIE No.	Title

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

Date	Letter No.	Title
7/1/19	DCL-19-055	Revised Enclosure for the Decommissioning Funding Report for Diablo Canyon Power Plant, Units 1 and 2
7/1/19	DCL-19-054	Submittal of Acceptance Report Following the Installation of Structural Weld Overlay, REP-RHR-SWOL for Unit 1
7/3/19	DCL-19-058	Nuclear Material Transaction Report for New Fuel
7/3/19	DCL-19-056	Response to NRC Request for Additional Information (Supplemental) Regarding "License Amendment Request 18-01, Request to Revise Emergency Plan Response Organization Staffing and Augmentation"
7/25/19	DCL-19-063	Re-Submittal of Updated Final Safety Analysis Report, Revision 24

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
7/18/19	Diablo Canyon Nuclear Power Plant, Units 1 and 2 – Notification of NRC Initial Operator Licensing Examination 05000275/2020301; 05000323/2020301
7/22/19	Summary of June 19, 2019, Meeting with Pacific Gas and Electric Company Regarding Forthcoming Activities Associate with Diablo Canyon Nuclear Power Plant, Units 1 and 2 Planned Decommissioning (EPID L-2019-LRM-0034)

D. NSOC/PSRC Documents (NSOC Minutes, NSOC Responses, PSRC Minutes)

Date	Doc. No.	Title
NSOC		No NSOC documents for this month.
PSRC Minutes	2019-009	DCL-19-039, Response to NRC Request for Additional Information Regarding "License Amendment Request 18-01, Request to Revise Emergency Plan Response Organization Staffing and Augmentation"
7/31/19		PSRC Members/Alternates Memo

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

Type	Doc. No.	Title
RCAs		There are no RCAs for this month.
ACE	SAPN 51007024	DA-MFP11 PIB-Y Vibration Approaching Alarm

July
List of Documents Transmitted Electronically

Eff. Eval		There are no Effectiveness Evals for this month.
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F. QV Documents (QPAR, Audit Reports, Audit Schedule, Assessments)

Date	Doc. No.	Title
		There is no QPAR for this month.
		There are no Audit Reports for this month.
7/8/19	Quality Verification Assessment # 191710018	2R21 Nuclear Fuel Receipt and Inspection
7/16/19	File # 191970001	DCPP Plant Status Control
7/15/19		Quality Digest – Information You Can Use

G. Nuclear Safety Culture Monitoring Panel Reports

Date	Doc. No.	Title
		There is no report for this month.

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

Date	Doc. No.	Title
8/7/19	SAPN 50973215	Informal Benchmark Report
8/7/19	SAPN 51032257	Trip Report - STP
8/7/19	SAPN 51027806	Formal Self-Assessment Report
7/17/19	SAPN 50634980	UFSAR Program Self-Assessment for 2016

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

Date	Doc. No.	Title
3/25/19		Nuclear Generation Operating Plan 2019 – 2023, No new updates this month.
PPIR	7/31/19	Diablo Canyon Power Plant; Plant Performance Improvement Report Achieving Results; Data: June 2019

July
List of Documents Transmitted Electronically

Station Initiative		There are no new Station Initiatives this month.
7/9/19		July 2019 July Performance Improvement Dashboards

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
		There are no Significance Determination Process Calculations for this month.

N. Miscellaneous

Date	Title
7/1/19	Jim Welsch's Weekly Alignment Update
7/2/19	Station Alignment Information Package
7/8/19	Jim Welsch's Weekly Alignment Update
7/9/19	Station Alignment Information Package
7/15/19	Jim Welsch's Weekly Alignment Update
7/16/19	Station Alignment Information Package
7/22/19	Jim Welsch's Weekly Alignment Update
7/29/19	Jim Welsch's Weekly Alignment Update

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 201927	T+1 Performance Critique
	Week 201928	T+1 Performance Critique
	Week 201929	T+1 Performance Critique

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
		There is no outgoing correspondence for this month.

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
8/1/19	Letter to Mr. Eichelberger Re: Petition Dated April 28, 2019
8/1/19	Diablo Canyon Power Plant, Units 1 and 2 – NRC Integrated Inspection Report 05000275/2019002 and 05000323/2019002
8/1/19	Diablo Canyon Power Plant – Design Basis Assurance Inspection (Teams) Inspection Report 05000275/201910 and 05000323/2019010
8/7/19	Meeting Near Diablo Canyon Power Plant on the Nuclear Energy Innovation and Modernization Act (NEIMA) Section 108
8/12/19	Diablo Canyon Nuclear Power Plant, Units 1 and 2 – Environmental Assessment and Finding of No Significant Impact Related to Exemption Requests for Use of Nuclear Decommissioning Trust Funds for Radiological Decommissioning, Spent Fuel Management, and Site Restoration Planning Activities (EPID L-2018-LLE-0023)
8/13/19	License Amendment Request for Change to the Security Classification of Intake Structure – Request for Additional Information (EPID L-2019-LLA-0029)
8/15/19	Diablo Canyon Nuclear Power Plant, Units 1 and 2 – Regulatory Audit Summary Regarding License Amendment Request for Changes to the Intake Structure Physical Security Classification (EPID L-2019-LLA-0029)
8/21/19	Diablo Canyon Nuclear Power Plant, Units 1 and 2 - Issuance of Amendment Nos. 233 and 235, Re: Revision to the Emergency Plan to Change Staffing and Extend Staff Augmentation Times for Emergency Response Organization Positions (EPID L-2018-LLA-0248)
8/30/19	Updated Inspection Plan for Diablo Canyon Power Plant, Units 1 and 2, Report 05000275/2019005 and 05000323/2019005

D. PSRC Documents

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

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

Type	Doc. No.	Title
RCAs		There are no RCAs for this month.

August
List of Documents Transmitted Electronically

ACE	SAPN 510221746	LTCA – Polar Crane Overspeed Trippin
Eff. Eval		There are no Effectiveness Evals for this month.

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

Date	Doc. No.	Title
		There is no QPAR for this month.
5/30/19	Quality Verification Assessment # 191490003	Operability Determinations and Extent of Condition Analyses
7/8/19	Quality Verification Assessment # 191780026	Review of Preventive Maintenance Change Requests
8/21/19	Quality Verification Assessment # 192330001	Notification Review Team (NRT) Results
8/6/19	FileNet #191550001	2019 Independent Spent Fuel Storage Installation & Fuel Management Audit
8/6/19	FileNet # 191420003	2019 Cyber and Physical Security Audit
8/8/19		Quality Digest; Information You Can Use – August Edition

G. Nuclear Safety Culture Monitoring Panel Reports

Date	Doc. No.	Title
		There is no report for this month.

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

Date	Doc. No.	Title
9/5/19	SAPN 50987143	IT Workshop 2018 Trip Report
9/5/19	SAPN 51025029	WPUG benchmark Report for Jan 2019
9/5/19	SAPN 51035904	Informal Benchmarking – Callaway CPE
9/5/19	SAPN 50953336	Self-Assessment for NRC Triennial Inspection

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List of Documents Transmitted Electronically

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

Date	Doc. No.	Title
3/25/19		Nuclear Generation Operating Plan 2019 – 2023, No new updates this month.
PPIR	8/26/19	Diablo Canyon Power Plant; Plant Performance Improvement Report Achieving Results; Data: July 2019
Station Initiative		There are no new station initiatives for this month.
7/29/19	PI Dashboard	August 2019 Engineering Performance Improvement Dashboard
7/29/19	PI Dashboard	August 2019 Maintenance Performance Improvement Dashboard
7/31/19	PI Dashboard	August 2019 Operations Services Performance Improvement Dashboard
7/30/19	PI Dashboard	August 2019 Security & Emergency Services Performance Improvement Dashboard

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
		There are no Significance Determination Process Calculations for this month.

N. Miscellaneous

Date	Title
8/5/19	Jim Welsch's Weekly Alignment Update
8/12/19	Jim Welsch's Weekly Alignment Update

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List of Documents Transmitted Electronically

8/19/19	Jim Welsch's Weekly Alignment Update
8/26/19	Jim Welsch's Weekly Alignment Update

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 201930	T+1 Performance Critique
	Week 201931	T+1 Performance Critique
	Week 201932	T+1 Performance Critique
	Week 201933	T+1 Performance Critique
	Week 201934	T+1 Performance Critique

September
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

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

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

Date	Letter No.	Title
9/12/19	DCL-19-068, DIL-19-010	Emergency Plan Implementing Procedure Update
9/19/19	DCL-19-075	Response to NRC Request for Additional Information Regarding "License Amendment Request 19-01, Proposed Changes to the Intake Structure Physical Security Classification" (OUO)
9/23/19	DCL-19-071	Supplement to "License Amendment Request 18-02, License Amendment Request to Revise Technical Specification 5.6.5b, 'Core Operating Limits Report (COLR)' for Full Spectrum Loss-of-Coolant Accident Methodology"
9/24/19	DCL-19-072, DIL-19-011	Annual Review of the Emergency Action Levels
9/24/19	DCL-19-073, DIL-19-012	Annual Review of the Emergency Action Levels

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
9/9/19	Diablo Canyon Power Plant, Units 1 and 2 – NRC Security Inspection Report 05000275/2019410 and 05000323/2019410 (OUO)
9/10/19	Diablo Canyon Power Plant, Units 1 and 2 – Notification of NRC Triennial Heat Sink Performance Inspection (NRC Triennial Heat Sink Performance Inspection (NRC Inspection Report 05000275/2019004 and 05000323/2019004) and Request for Information
9/10/19	Diablo Canyon Nuclear Power Plant, Units 1 and 2 – Exemptions from the Requirements of 10 CFR Part 50, Sections 50.82(a)(8)(i)(A) and 50.82(a)(8)(ii) (EPID L-2018-LLE-0023)

D. NSOC/PSRC Documents (NSOC Minutes, NSOC Responses, PSRC Minutes)

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

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

Type	Doc. No.	Title
RCAs		There are no RCAs for this month.

September
List of Documents Transmitted Electronically

ACE	SAPN 51035842	DA-U-2 BUS F Inadvertent Bus Transfer
	SAPN 51039820	DA-Tech Spec 3.7.5.D entry
Eff. Eval	SAPN 50683129	IERL2-14-26 Temp Life Failur Effic Rvw
	SAPN 51025556	DA-Evaluate Effectiveness Eval

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

Date	Doc. No.	Title
		There is no QPAR for this month.
10/1/19	FileNet #191330004	2019 Problem Prevention and Corrective Action Program Audit
9/4/19	Quality Verification Assessment #192460004	Implementation of IER 17-5: Line of Sight to the Reactor Core
9/3/19		Quality Digest; Information You Can Use: September Edition 2019
10/1/19		Quality Digest; Information You Can use: October Edition 2019

G. Nuclear Safety Culture Monitoring Panel Reports

Date	Doc. No.	Title
		There is no NSCMP report for this month.

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

Date	Doc. No.	Title
10/5/19	SAPN 51019391	QHSA AD2.ID1 / INPO 11-003
10/5/19	SAPN 51031173	Design Change Mod Quality-QHSA (2019)
10/5/19	SAPN 50881400	Benchmark – INPO RPM Workshop

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

Date	Doc. No.	Title
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September
List of Documents Transmitted Electronically

3/25/19		Nuclear Generation Operating Plan 2019 – 2023, No new updates this month.
PPIR		Diablo Canyon Power Plant; Plant Performance Improvement Report Achieving Results; Data:
Station Initiative		There are no new Station Initiatives this month.
9/3/19		September 2019 Maintenance Performance Improvement Dashboard
9/4/19		September 2019 Engineering Performance Improvement Dashboard
9/4/19		September 2019 Security & Emergency Services Performance Improvement Dashboard
9/9/19		September 2019 Operations Services Performance Improvement Dashboard

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
		There are no Significance Determination Process Calculations for this month.

N. Miscellaneous

Date	Title
9/3/19	Jim Welsch's Weekly Alignment Update
9/9/19	Jim Welsch's Weekly Alignment Update
9/16/19	Jim Welsch's Weekly Alignment Update

September
List of Documents Transmitted Electronically

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 201935	T+1 Performance Critique
	Week 201936	T+1 Performance Critique
	Week 201937	T+1 Performance Critique
	Week 201938	T+1 Performance Critique
	Week 201939	T+1 Performance Critique

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	October 23-24, 2019
AGENDA ITEMS:	VII-A & B and XIII C & XXIV D
AGENDA TITLE:	Consultant & Legal Counsel Reports; Receive, Approve 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 2019. These reports may be received by the Committee, approved as to form and content and be authorized for transmittal to PG&E for its consideration and response. Fact finding reports become a part of the next DCISC Annual Report and are available for public inspection following their approval by the Committee as they are no longer in draft form upon approval.

RECOMMENDED COMMITTEE ACTION: Receive reports by Consultants and Assistant Legal Counsel reports and provide direction.

Motions to accept and direct transmittal of fact finding reports to PG&E concerning fact-findings conducted on July 16-17, August 21-22 and September 11-12, 2019.

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

MEETING DATE:	October 23, 2019
AGENDA ITEM:	XVIII
AGENDA TITLE:	Committee Discussion and Receive Comments Regarding a Potential Role for the DCISC to Review Nuclear Fuel-Related Issues After Expiry of the Operating Licenses for DCPD.

CONSENT [] ACTION [X] INFORMATION [X]

Staff Summary: The Committee Members, Technical Consultants and Assistant Legal Counsel are expected to discuss and to receive comments from members of the public and representatives of governmental and non governmental organizations concerning a potential post-shutdown role for the DCISC to review issues associated with nuclear fuel-related issues following cessation of generation operations and expiration of DCPD's operating licenses from the NRC by 2024 and 2025.

At the DCISC's public meeting on June 4-5, 2019 the Members discussed recommending in the 2018 Nuclear Decommissioning Cost Triennial Proceeding (NDCTP) a version of a proposed Second Restatement of a Charter for the DCISC to provide for a post-generation role. After discussion, based on their understanding and assessment of the risk factors, the Members recommended a version of a proposed Second Restatement of a Charter for the DCISC which would terminate the DCISC's safety review once all spent fuel was successfully transferred to the ISFSI. On June 6, 2019, the Committee's Motion for party status in the NDCTP now pending before the California Public Utilities Commission was denied.

To inform the discussion, a copy of the draft Second Restatement, showing the changes from the present Restated Charter (circa 2007), is provided together with the Post-Shutdown Summary of the phases which will follow the shutdown of the Diablo Canyon reactors, the topical areas proposed for the DCISC's continued review, an assessment of the risk during each phase, and an estimate of the duration of each phase.

RECOMMENDED COMMITTEE ACTION: provide direction as appropriate.

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**SECOND RESTATEMENT OF THE CHARTER FOR THE
DIABLO CANYON INDEPENDENT SAFETY COMMITTEE**

I. Formation and Membership of the Committee.

A. Composition and Responsibility of the Committee.

(1) An Independent Safety Committee (the "Committee") shall be established consisting of three members, one each appointed by the Governor of the State of California, the Attorney General and the Chair of the California Energy Commission ("CEC"), respectively, serving staggered three-year terms. The Committee shall review Diablo Canyon Nuclear Power Plant ("Diablo Canyon") operations for the purpose of assessing the safety of operations and suggesting any recommendations for safe operation and shall terminate its review in accordance with Section III. Safety of operations shall mean activities in connection with generation of electricity by Diablo Canyon and/or the operation of the Diablo Canyon Spent Fuel Pools and related support systems and the Diablo Canyon Independent Spent Fuel Storage Installation ("ISFSI"), including the transport of nuclear fuel to and from Diablo Canyon's the Spent Fuel Pools and the storage of nuclear fuel within the Spent Fuel Pools and the transport and storage of nuclear fuel and radioactive materials to and -within the ISFSI or elsewhere at Diablo Canyon on the plant site. Neither the Committee nor its members shall have any responsibility or authority for plant operations, and they shall have no authority to direct Pacific Gas & Electric Company ("PG&E") personnel. The Committee shall conform in all respects to applicable federal laws, regulations and Nuclear Regulatory Commission ("NRC") policies.

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B. Appointment of Committee Members.

(1) Candidates for Committee membership shall be selected from those persons responding to an open request for applications. The California Public Utilities Commission ("CPUC") shall provide for public comment on qualified applicants by posting on the CPUC's homepage (www.cpuc.ca.gov) a link to information concerning the name of each qualified applicant, along with a summary of his or her qualifications and a statement identifying any potential conflict of interest, an Applicant's Application for Nomination shall address those items enumerated in Section I.C. The President of the CPUC shall provide to the appropriate appointing authority a list of not more than three qualified candidates as alternatives to the reappointment of that authority's designated Committee member whose term is expiring. The incumbent member, if he or she consents, shall be deemed an additional candidate. Each subsequent appointment shall be for a three-year term.

(2) Should a Committee member not complete the appointed term, the authority who appointed that member shall appoint a replacement to serve for the unexpired portion of the term from the most recent list of candidates selected by the President of the CPUC in accordance with the appointment procedures set forth herein.

(3) The President of the CPUC shall review each application to assess the applicant's qualifications, experience and background, including any conflict of interest and comment received from the public, and shall propose as candidates only persons with knowledge, background and experience in the field of nuclear power facilities and nuclear safety

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issues who demonstrate they have no conflict of interest as set forth in Section I.C. The CPUC Energy Division shall prepare, circulate for public comment and place on the CPUC's public agenda a resolution ratifying the President's selection of not more than three qualified candidates and an incumbent member.

C. Conflict of Interest.

(1) No person shall serve as a member of the Committee if he or she has received ~~\$500,250~~.00 or more in income (as defined in Government Code Section 82030, but excluding dividends or interest from stocks or bonds) or gifts (as defined in Government Code Section 82028) from PG&E or an affiliated company within twelve months prior to the start of his or her original term, or if he or she has, at the time of the commencement of service, an investment (as defined in Government Code Section 82034) worth ~~\$21~~,000.00 or more in PG&E or any affiliated company. In addition, no member of the Committee shall make, participate in making, or in any way attempt to use his or her official position to influence any action of the Committee in which he or she knows or has reason to know that he or she has a financial interest. The provisions of the Political Reform Act, including implementing regulations and rulings, as applied to Government Code Section 87100 shall be used to determine whether a member has a conflict of interest.

(2) Members of the Committee shall file a Statement of Economic Interest at the same time and in the same manner as designated employees of the CPUC must file under the

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Political Reform Act and CPUC Conflict of Interest Code. Members of the Committee shall disclose any investment in or income from the following:

- (a) An electric corporation subject to the jurisdiction of the CPUC, including any parent, subsidiary or affiliated business entity;
- (b) A business entity that regularly supplies natural gas, nuclear fuel, fuel oil or other forms of energy to an electric corporation subject to CPUC jurisdiction;
- (c) Any business entity that has done more than \$10 million of work on the design, construction, engineering or operation of the Diablo Canyon power plant.

Copies of the members' Statements shall be available for public inspection.

(3) No person shall serve as a member of the Committee if he or she has a prior history of supporting or opposing PG&E as a witness or intervenor in nuclear licensing or CPUC proceedings associated with Diablo Canyon.

D. Commencement of Term.

(1) The list of candidates shall be submitted to the appointing authorities on or before January 1 of each year. Appointments shall be made by March 1 of each year. Each Safety Committee term shall commence on July 1 of the year of appointment. If any such deadline is missed, the relevant action shall be taken or shall occur at the earliest possible date thereafter.

(2) In accordance with Government Code Section 1302, a Committee member shall continue to discharge his or her duties until reappointed or replaced.

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E. Exercise of Powers.

(1) The Chair of the CEC and the President of the CPUC shall exercise their powers after consultation with their respective commissions in public session.

II. Scope of Committee Operations.

A. Receipt of Reports and Records.

(1) The Committee shall have the right to receive on a regular basis such of the following operating reports and records of Diablo Canyon as the Committee may request. Such reports and records shall be provided quarterly as available:

- (a) Automatic scrams while critical;
- (b) Significant events;
- (c) Safety system actuations;
- (d) Forced outage rate;
- (e) Collective radiation exposure;
- (f) Industrial safety loss time accident rate;
- (g) NRC public reports and evaluations of Diablo Canyon; and
- (h) Such other reports pertinent to safety as may be produced in the course of operations and may be requested by the Committee.

B. Annual Site Inspection.

(1) The Committee shall have the right to conduct ~~an annual~~ examinations of the Diablo Canyon site. If the Committee requires additional information regarding a specific issue

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the Committee may request such information and, upon proper notice to PG&E, conduct a site visit to investigate that issue.

(2) PG&E shall cooperate with the Committee in arranging times for the Committee's visits to the site and shall be responsible for ensuring the cooperation of PG&E employees and contractors in providing information and access to the plant and facilities of PG&E and to pertinent records. Any such site visit must comply with all applicable federal laws, regulations and NRC policies, including laws, regulations and policies governing screening of persons who may participate in site inspections.

C. Committee Reports and Recommendations.

(1) The Committee shall prepare an annual report, and such interim reports as it deems appropriate, which reports shall include any recommendations of the Committee. The report shall be submitted first to PG&E, and PG&E shall respond in writing within 45 days. PG&E's response shall be made part of the report which shall then be submitted to the CPUC, the Governor, the Attorney General and the CEC. The CPUC, the Governor, the Attorney General and the CEC, or any one of them, may file a request pursuant to 10 CFR Sec. 2.206 for the Director of Nuclear Reactor Regulation to institute a proceeding to require PG&E to adopt any safety recommendation made by the Committee. PG&E is free to oppose any such recommendation before the NRC.

D. Confidentiality of Information

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(1) In the course of review of Diablo Canyon operations, Committee members may receive confidential information. Federal law restricts disclosure of certain information; accordingly, Committee members shall seek approval of the NRC for access to such information and shall comply with all laws, regulations and policies applicable to access to, possession and use of such information. The Committee is subject to the California Public Records Act (Government Code Section 6250 et seq.). To the extent that PG&E believes that ~~other~~ information sought by the Committee, not otherwise regulated by the Atomic Energy Act, is confidential under the California Public Records Act and/or constitutes confidential business information, the disclosure of which might injure PG&E in its business, PG&E ~~shall~~may so designate that information and the basis on which PG&E believes the information is exempt from disclosure. If the Committee receives a demand for disclosure of - iInformation so designated by PG&E, the Committee shall notify PG&E and lawfully object and defend any rights the Committee may have to non- disclosure of the confidential information. ~~shall be treated as confidential and not disclosed outside the Committee unless a majority of the Committee challenges the propriety of the claim of confidentiality by vote taken within 30 days of designation.~~ A dispute between the Committee and PG&E on a claim of confidentiality shall promptly be submitted to binding arbitration. Committee members and all persons who receive confidential information in the course of or as a result of the Committee's activities shall have a duty to maintain the confidentiality of that information and, in addition to complying with the

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requirements of federal and state law and regulations, shall execute a confidentiality agreement prior to receiving any confidential information.

(2) The Committee may contract for services, including the services of consultants and experts, to assist the Committee in its safety review. Disclosure of PG&E information or records to any such person shall be governed by the provisions of this agreement in the same manner as disclosure to members of the Committee. No disclosure of confidential information shall be made to any person who does not have a need to receive the information in order to assist the Committee in its safety review. Nor shall such disclosure be made to any person known to have a conflict of interest.

(3) This provision shall not preclude the Committee from submitting relevant information to the NRC or to the CPUC, the Governor, the Attorney General, or the CEC to the extent permitted by federal law. Prior to the disclosure of any confidential information, however, the Committee shall give PG&E notice of its intention to do so and an opportunity to designate specific documents or information which should not be publicly disclosed and to seek to prevent public disclosure by the entity to which disclosure is made.

E. Compensation of the Committee

(1) Members of the Committee shall be compensated in an amount established by the CPUC commensurate with fees PG&E pays for similar services. Each member shall receive ~~an~~ \$108,000.00 annual retainer and, in the event a member performs more than 40 hours of work on Committee business between July 1 and the following June 30, such hours shall be

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compensated at \$250.00 per hour. PG&E shall file annually, on April 1, a report updating commensurate fees for comparable services and concurrent with that report, an advice letter with proposed revisions to the compensation levels.

(2) The fees and expenses of the Committee and its contractors shall be paid by PG&E and PG&E shall be entitled to recover those amounts through its cost-of-service rates. An authorized Committee budget not exceeding \$673,077.00 for calendar year 1996, with a 1.5% annual escalation for every year thereafter, has been established, which includes all costs, member compensation, travel expenses, contracting fees, staff salaries and audit expenses.

Funds provided for the fees and expenses of the Committee and its contractors which remain unspent and uncommitted on December 31 of a calendar year will be returned to PG&E to be applied as a credit to its cost-of-service rates. The compensation of Committee members, which is included in the budget, is tied to the fees paid by PG&E for similar services. Therefore, the rate of change in the budget could differ from the rate of change in the compensation paid to committee members.

(3) The Committee and its contractors shall keep accurate books, records and accounts, which shall be open to inspection and audit by the CPUC or its designee and by PG&E. Such audit shall include review of the reasonableness of fees and expenses and review for conflict of interest.

F. Public Outreach

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(1) The Committee shall undertake public outreach in the affected community, including, but not limited to, assuring that the Committee meetings are conducted in accordance with the Bagley—Keene Open Meeting Act and videotaped and broadcast. To the extent that public outreach results in an increase in costs associated with the Committee, beyond any annual authorized funding level, the Committee's budget shall be increased by the same amount and PG&E shall be entitled to recover that amount through a CPUC-determined increment to PG&E's cost-of-service rates.

G. Outreach to Other Reviewing Committees

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

III—HG. Termination of Committee's Review of Diablo Canyon Operations.

(1) The Committee will terminate its review of safety of operations within six months of the upon further order of the CPUC or upon the date of successful completion of the transfer of all nuclear fuel from both the Diablo Canyon Spent Fuel Pools to the ISFSI,; whichever date is earlier, and Tthe Committee will then prepare and submit a final annual or an interim report and terminate its activities within twelve months of that date

DCISC Post-Shutdown Summary - D R A F T - For Discussion Purposes

		Phases Following Cessation of Operations			
		Phase A	Phase B	Phase C	Phase D
Plant Status →		Reactors Shutdown with Fuel Remaining in Reactors.	Fuel Removed from Both Reactors.		
Areas for DCISC Review ↓		Spent Fuel Pools Operational.	Spent Fuel Pools Operational.	Spent Fuel Pools Empty	Decommissioning Complete.
		Decommissioning beginning	Decommissioning in Progress	Decommissioning in Progress.	ISFSI Operational and/or spent fuel being shipped from site
		ISFSI Operational	ISFSI Operational	ISFSI Operational	
		All Systems*	SFP-Related Systems	No	No
1	Health of Safety Systems				
2	Health of Electrical and Other Supporting Systems	All Systems*	SFP-Related Systems	No	No
3	Operator Staffing, Training, and Licensing	Yes	Yes	No	No
4	Regulatory Compliance	Yes	Yes	TBD**	No
5	Offsite Emergency Preparedness	Yes	Yes	TBD**	No
6	Quality Verification and Related Activities	Yes	SFP-Related Systems	No	No
7	Engineering & Other Programs	Yes	SFP-Related Systems	No	No
8	Human Performance	Yes	Yes	No	No
9	Performance Improvement and Corrective Action Programs	Yes	Yes	TBD**	No
10	Fire Protection	Yes	SFP-Related Systems	No	No

DCISC Post-Shutdown Summary - D R A F T - For Discussion Purposes

		Phases Following Cessation of Operations			
		Phase A	Phase B	Phase C	Phase D
Plant Status →	Areas for DCISC Review ↓	Reactors Shutdown with Fuel Remaining in Reactors.	Fuel Removed from Both Reactors.		
		Spent Fuel Pools Operational.	Spent Fuel Pools Operational.	Spent Fuel Pools Empty	Decommissioning Complete.
		Decommissioning beginning	Decommissioning in Progress	Decommissioning in Progress.	ISFSI Operational and/or spent fuel being shipped from site
		ISFSI Operational	ISFSI Operational	ISFSI Operational	
11	Beyond Design Basis & FLEX	Yes	SFP-Related Systems	No	No
12	ISFSI Operations	Yes	Yes	TBD**	No
13	ISFSI Storage Cask Aging Management	Yes	Yes	TBD**	No
14	Management of Risk from External Hazards	Yes	SFP-Related Systems	TBD**	No
15	Decommissioning Planning and Execution	Yes	SFP-Related Systems	No	No
16	Nuclear Safety Culture and Employee Concerns Programs	Yes	Yes	TBD**	No
17	Radiological Protection and Health Physics, including Worker Radiation Safety and Annual Reports	Yes	Yes	TBD**	No
18	Interface Between Security and Safety	Yes	Yes	TBD**	No
19	Plans and Execution of Spent Fuel Shipments Departing DCCP for Long-Term Storage or Disposal	No	No	No	No

DCISC Post-Shutdown Summary - D R A F T - For Discussion Purposes

Phases Following Cessation of Operations				
	Phase A	Phase B	Phase C	Phase D
Plant Status →	Reactors Shutdown with Fuel Remaining in Reactors. Spent Fuel Pools Operational. Decommissioning beginning ISFSI Operational	Fuel Removed from Both Reactors. Spent Fuel Pools Operational. Decommissioning in Progress ISFSI Operational	Spent Fuel Pools Empty Decommissioning in Progress. ISFSI Operational	Decommissioning Complete. ISFSI Operational and/or spent fuel being shipped from site
Areas for DCISC Review ↓				
RISK	Significant risk of radiological release but less than during power operation.	Risk from a potential accident from spent fuel pool, begins as important, diminishes to lower risk in a few years, and becomes much less important toward the end of Phase B. Risk from fuel transfer and decommissioning activities is low.	Residual risk of an accident that could release important radioactivity to the plant site and the environment will be quite small. Radiological risk from the decommissioning activities will be low due to radioactive decay and will diminish later in the decommissioning process as the number of radioactively contaminated components becomes fewer and fewer.	Risk from a radiological release from the ISFSI will remain quite small.
ESTIMATED TIME/DURATION	TBD but probably a period of months	10 YEARS AFTER SHUT DOWN	TBD	TBD

DCISC Post-Shutdown Summary - DRAFT - For Discussion Purposes

Phases Following Cessation of Operations				
	Phase A	Phase B	Phase C	Phase D
Plant Status → Areas for DCISC Review ↓	Reactors Shutdown with Fuel Remaining in Reactors.	Fuel Removed from Both Reactors.		
	Spent Fuel Pools Operational.	Spent Fuel Pools Operational.	Spent Fuel Pools Empty	Decommissioning Complete.
PROPOSED RECOMMENDATION CONCERNING DCISC REVIEW	Decommissioning beginning	Decommissioning in Progress	Decommissioning in Progress.	ISFSI Operational and/or spent fuel being shipped from site
	ISFSI Operational	ISFSI Operational	ISFSI Operational	
	No change	DCISC review should continue but with reduced scope and should probably terminate when all fuel is at the ISFSI, but defer final recommendation until middle of Phase B	TBD	Unnecessary

* Systems important to safety or affecting safety systems

** TBD – The need for future DCISC review to be considered during Phase B