

VI COMMITTEE MEMBER REPORTS AND DISCUSSION

- A. Public Outreach, Site Visits and Other Committee Activities; Agenda Items, 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 REPORTS TO PG&E

- A. Richard D. McWhorter Jr.:
Fact-finding Topics; Report on and Approval of November 7-8, 2018 Fact Finding Report.
- B. Robert Rathie
Administrative, Regulatory and Legal Matters

VIII ADJOURN MORNING MEETING

Afternoon Session - 2/27/2019 - 1:30 P.M.

IX RECONVENE FOR AFTERNOON MEETING

X COMMITTEE MEMBER COMMENTS

XI 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*

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

- C. Ferman Wardell:
Fact-finding Topics; Report on and Approval of the December 4-5, 2018 Fact Finding Report.

XIII INFORMATION ITEMS BEFORE THE COMMITTEE

- A. Informational Presentations Requested by the Committee of PG&E Representatives.
 - 1) State of the Plant Update including Key Events, Highlights, Organizational Changes, Bankruptcy Announcement, and Station Activities since DCISC's October 2018 Public Meeting Including the Cause and Corrective Actions for the December 2018 Trip of Unit 2; and Work Scheduled During the 21st Refueling Outage for Unit-1 (1R21).

XIV INFORMATIONAL PRESENTATION BY A COMMITTEE MEMBER

- 1) Seismic Risk Analysis Results.
Presentation by Dr. Robert J. Budnitz, DCISC Chair.

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

XVI ADJOURN AFTERNOON MEETING

Evening Session – 2/27/2019 - 5:30 P.M.

XVII RECONVENE FOR EVENING MEETING

XVIII COMMITTEE MEMBER COMMENTS

XIX PUBLIC COMMENTS AND COMMUNICATIONS

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

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

- B. Informational Presentations Requested by the Committee of PG&E Representatives.
- 3) Update on Emergency Preparedness Programs; Results of the October 24, 2018 Evaluated Emergency Exercise; and Emergency Preparedness Following Cessation of Operations.
- 4) Cybersecurity Programs for the Protection of Critical Digital Assets.

XXI ADJOURN EVENING MEETING

Morning Session - 2/28/2019 - 9:00 A.M.

XXII RECONVENE FOR MORNING MEETING

XXIII COMMITTEE MEMBER COMMENTS

XXIV 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.*

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

- C. Informational Presentations Requested by the Committee of PG&E Representatives.
- 5) Update on the Status of NRC Performance Indicators, Licensee Event Reports, NRC Inspection Reports and Notices of Violation, and Issues Raised by NRC Resident Inspectors.
- 6) Quality Verification's Perspective on Plant Performance, Top Issues, Quality Performance Assessment Report.

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

- D. Richard D. McWhorter Jr.:
Fact-finding Topics; Report on and Approval of
January 23-24, 2019 Fact Finding Report.

XXVII ADJOURN MORNING MEETING

Afternoon Session – 2/28/2019 - 1:00 P.M.

XXVIII RECONVENE FOR AFTERNOON MEETING

XXIX COMMITTEE MEMBER COMMENTS

XXX PUBLIC COMMENTS AND COMMUNICATIONS

Anyone wishing to address the Committee on matters not appearing on the Agenda may do so 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.*

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

- D. Informational Presentations Requested by the Committee of PG&E Representatives.
- 7) Results of the 2018 Operating Plan and Key Elements of the 2019 Operating Plan.

XXXII INFORMATIONAL DISCUSSION BY COMMITTEE MEMBERS & CONSULTANTS

- 1) Committee Discussion of Options and a Potential Role for the DCISC After Expiration of the Operating Licenses for DCPD and the Possible Engagement, on an *Ad Hoc* Basis, of a Consultant to Assist in the Identification of Decommissioning-related Issues; Consider Correspondence to and from the DCISC on Decommissioning-related Matters; Consideration of an Invitation Extended to the DCISC by the Diablo Canyon Decommissioning Engagement Panel (DC DEP) for a DCISC Representative to Attend and to Make a Presentation at the DC DEP's March 13, 2019 Public Meeting in San Luis Obispo; and Discussion of Future Opportunities for Cooperation between the DC DEP and the DCISC. Discussion/Direction

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

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

XXXIV ADJOURNMENT OF NINETY-SECOND PUBLIC MEETING

The DCISC's policy is to schedule its public meetings in locations that are accessible to people with disabilities. The Pismo Lighthouse Suites Crow's Nest 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:	February 27, 2019
AGENDA ITEM:	IV-A
AGENDA TITLE:	Minutes of October 24-25, 2018, Public Meeting

CONSENT [X] ACTION [] INFORMATION []

Staff Summary: Attached are the Minutes which have been prepared from the Committee's ninety-first public meeting held on October 24-25, 2018 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

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	February 27, 2019
AGENDA ITEM:	V-A
AGENDA TITLE:	DCISC Receipt of PG&E's Response to its Twenty-Eighth Annual Report on Safety of Diablo Canyon Operations; July 1, 2017 - June 30, 2018

CONSENT ☐ ACCEPTANCE ☒ INFORMATION ☐

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

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

The Committee made no recommendations in its Twenty-Eighth Annual Report for the period July 1, 2017 – June 30, 2018.

RECOMMENDED COMMITTEE ACTION:

Motion to accept PG&E's Responses to the DCISC's Twenty-Eighth Annual Report.

MINUTES
of the
DIABLO CANYON INDEPENDENT SAFETY COMMITTEE'S
October 24-25, 2018, PUBLIC MEETING
[For approval at the February 27-28, 2019 Public Meeting]

Wednesday & Thursday
October 24-25, 2018
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 meeting agenda were also posted on the Committee's website at www.dcisc.org.

PUBLIC TOUR OF DIABLO CANYON POWER PLANT

On the morning of Wednesday, October 24, 2018, Diablo Canyon Independent Safety Committee (DCISC) Members Drs. Lam and Peterson, together with Committee Technical Consultants Mr. Wardell, accompanied by 14 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 Pacific Gas & Electric Company's (PG&E) Energy Education Center auditorium for a brief introduction of the DCISC and its Members and Technical Consultants and a discussion of the appointment of its members and the role and operations of the Committee and to view an informational video on the history, role and responsibilities of the Committee. Afterward, DCPP tour guide Ms. Diana Turk gave a safety and informational presentation with an overview of the power plant and how it operates. An opportunity was provided for questions. The group then boarded a bus for the ride to the plant. During the drive information was presented on the history of 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 PG&E's land stewardship responsibilities and 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 and Technical Consultants visited the Glass-top Simulator Facility where PG&E representative Mr. Roger Reed provided a description and an opportunity to observe computer-based simulations run on the Simulator to train control room operators. 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.

The group then departed DCPP for return to the Energy Education Center and had the opportunity to discuss the plant with Drs. Lam and Peterson and Mr. Wardell. While the tour was taking place DCISC Member Dr. Robert J. Budnitz and Committee Technical Consultant

Mr. McWhorter were on site to observe the evaluated emergency exercise which was then taking place.

CONCLUDE PUBLIC TOUR

Agenda

I CALL TO ORDER - ROLL CALL

The October 24, 2018, public meeting of the Diablo Canyon Independent Safety Committee, the ninetyth-first meeting of the DCISC, was called to order by Committee Chair, Dr. Robert J. Budnitz, at 1:15 P.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 room, introduced himself and reviewed briefly his professional background 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, 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 Legal Counsel Robert R. Wellington. Dr. Budnitz then introduced and recognized Mr. Hector Garcia, Support Manager in the office of PG&E Vice President and Chief Nuclear Officer Mr. James Welsch. Dr. Budnitz reported Mr. Garcia also ably serves as the principal liaison and point of contact for the Committee with PG&E and DCP.

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 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.

. Lam recognized and acknowledged the presence in the audience of Judge Alex Karlin, a former colleague of Dr. Lam's and Dr. Lam remarked Judge Karlin is one of the appointees to the Diablo Canyon Decommissioning Engagement Panel (DC DEP). Dr. Lam invited Judge Karlin to address some remarks to the Committee.

Judge Karlin confirmed his service on the DC DEP which was formed in May 2018 and he renewed a prior invitation to the DCISC to attend the meeting of the DC DEP to be held that evening in San Luis Obispo, California. Judge Karlin reported the DC DEP was created by PG&E at the behest of the California Public Utilities Commission (CPUC) to serve as a conduit for information between the local community, PG&E and DCPD on matters concerning the decommissioning of DCPD. Judge Karlin reported PG&E has provided thorough and careful support through the process of the eleven members of the DC DEP holding monthly meetings concerning decommissioning funding, the decommissioning process, and the re-use of land and facilities. Judge Karlin then introduced Dr. Nancy O'Malley and Ms. Linda Seeley, fellow members of the DC DEP present in the audience for this public meeting.

Judge Karlin remarked he previously provided a chart to the DCISC with a comparison of different decommissioning oversight groups for decommissioned or decommissioning nuclear power plants and he commented the DC DEP was intended to be quite different from the San Onofre Community Engagement Panel formed to oversee the decommissioning of the San Onofre Nuclear Generating Station located in Pendleton, California. Judge Karlin remarked the DC DEP was also quite different from the DCISC which was created by the CPUC.

Dr. Budnitz thanked Judge Karlin for his remarks and confirmed that the Members of the DCISC received the comparison mentioned by Judge Karlin and intend to attend the meeting later in the evening of the DC DEP.

Dr. Gene Nelson, who serves in a volunteer capacity as legal assistant and government liaison for the group Californians for Green Nuclear Power (CGNP) was recognized and he observed that CGNP has acted as an intervenor in opposition in the proceedings before the CPUC which approved PG&E's voluntary application to close DCPD by 2025. Dr. Nelson reported the CPUC has rejected CGNP's application for a rehearing in the matter of the closure of DCPD but that the status of PG&E's application is designed as "reopened" on the CPUC's website.

Mr. David Weisman, a representative of the group Alliance for Nuclear Responsibility (A4NR) was recognized. Mr. Weisman observed that A4NR has assembled a set of formal written comments concerning the DC DEP and A4NR has suggestions and certain questions concerning the future direction of the DC DEP which anyone may review on the A4NR website at www.a4nr.org. Dr. Budnitz confirmed that the DCISC has received and reviewed the document mentioned by Mr. Weisman.

Ms. Linda Seeley, speaking on behalf of the group San Luis Obispo Mothers for Peace (MFP) was recognized. Ms. Seeley stated MFP would like the DCPD to investigate the designation made in 2003 by the Nuclear Regulatory Commission (NRC) that DCPD Unit-1 is among the five most embrittled reactors in the U.S. Ms. Seeley stated that when the Unit-1 reactor vessel was manufactured in 1967 the knowledge of the effect of exposure to radioactivity on the vessel welds was not as well understood as it is today and it was her belief that the welds in Unit-1 contained a higher concentration of copper than is used in reactor vessels manufactured more recently. She commented that it was her understanding that this concentration of copper contributes to the embrittlement identified in the Unit-1 reactor vessel. She remarked that she understood that that analysis of certain samples of the metal used in a reactor vessel, known as

coupons, can reveal the existence of microscopic cracking which contributes to the determination of embrittlement and that ultrasonic testing is also performed in the effort to detect cracking due to embrittlement. Ms. Seeley stated it was informed that three coupons from Unit-1 have been analyzed and there are no plans to do any further analysis. Dr. Peterson stated that the three coupons which have been tested were located in the vessel in areas which exposed them to substantially more radioactivity than would be experienced by the reactor vessel for the entirety of its operational life and therefore additional coupons were not required for analysis. Ms. Seeley stated that DCPD has applied to the NRC and received an exemption from the requirement to perform ultrasonic testing of the reactor vessel which was to have otherwise been performed in 2015 and the results is no additional ultrasonic testing will be performed for Unit-1 during its expected lifetime. Ms. Seeley stated her understanding that it would cost approximately \$200,000 to perform the ultrasonic testing during the refueling outage for Unit-1 scheduled in February 2019 and she commented perhaps the community could raise the funds necessary if PG&E lacked the funding to perform the tests.

Dr. Lam replied he was unaware of the exemption from the NRC regulations cited by Ms. Seeley and **Dr. Peterson commented the DCISC would look into the issue raised by Ms. Seeley at its next fact-finding in December 2018.** Dr. Budnitz commented that the vessel is not brittle; rather all metals are subject to embrittlement in certain circumstances and at very cold temperatures and there is a difference between being brittle and being susceptible to embrittlement. As a reactor vessel is generally always kept at a high temperature, it remains ductile and provided reactor shutdown proceeds in an orderly way, the vessel will not be susceptible to forces which could subject it to fracture due to embrittlement. He remarked the danger comes from the injection of cold water. The NRC established alternate regulations found at 10 CFR 50.61 and 10 CFR 50.61(a) governing what is known as pressurized thermal shock with 10 CFR 50.61(a) taking into account more recent metallurgical knowledge which enables nuclear power plants to do a much more realistic analysis to demonstrate the vessel is safe against cold water injection than was possible under 10 CFR 50.61 which Dr. Budnitz described as very conservative. Dr. Budnitz stated it was his understanding DCPD has conducted analyses under 10 CFR 50.61(a) which show the vessels are not subject to embrittlement, Dr. Lam recalled that PG&E initially elected to use 10 CFR 50.61 and the coupon data was reassuring. Dr. Budnitz stated the DCISC has reviewed this issue previously and was convinced at that time the vessels were not susceptible to the pressurized thermal shock phenomenon and this would remain so through 2025. Dr. Lam commented that while he initially had concerns about the NRC's motivation in promulgating 10 CFR 50.61(a) he is now convinced that the alternate regulation is based upon better science. **Mr. Wardell reported the issue of the exemption from ultrasonic testing was reviewed by the Committee previously and it was found that the exemption was applicable to a portion of the test and was due to the geometry of the reactor vessel which prevented the use of instruments to get an accurate reading. He offered to provide information to Ms. Seeley on the review of that issue.**

Ms. Sherry Lewis, a representative of MFP was recognized. Ms. Lewis inquired with reference to Ms. Seeley's concern as to what item on the DCISC Open Items List pertained to the Committee's review of these issues. Mr. Wardell replied Item SE-26 was the applicable reference.

IV CONSENT AGENDA

The first item on the Consent Agenda was approval of the Minutes of the Committee's June 13-14, 2018 public meeting held in Avila Beach, California. The Members and Technical Consultants reviewed the draft of the June 2018 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 Legal Counsel concerning certain references in the draft Minutes and regarding typographical or editorial corrections, as well as concerning substantive changes to be made to the final version of the June 2018 Minutes. The Minutes as revised and corrected will be part of the final version of the Committee's 28th Annual Report on the Safety of Diablo Canyon Power Plant Operations (Annual Report) for the period July 1, 2017 to June 30, 2018.

There were no public comments on June 2018 Minutes and on a motion by Dr. Lam, seconded by Dr. Peterson, the Minutes of the Committee's February 2018 public meeting were adopted as amended subject to inclusion of the revisions discussed and changes provided to its Legal Counsel.

V ACTION ITEMS

A. DCISC 28th Annual Report on Safety of Diablo Canyon Operations, July 1, 2017 - June 30, 2018. The Chair requested Consultant Wardell to lead the discussion concerning preparation of the 28th Annual Report. Mr. Wardell reported three drafts were circulated for review and a draft of the Executive Summary was provided for final review and as the basis for discussion regarding approval of the report. The Committee Members discussed with Mr. Wardell the basis for Specific Conclusion No. 1 concerning the reduction in the rate of identification of violations of very low safety significance as this could be a sign of good performance but it could also be indicative of a certain complacency in reporting issues which could lead to a violation. **The Members discussed and agreed that the reference in the 28th Annual Report in Specific Conclusion No. 1, concerning a reduction in the rate of identification of violations of a very low safety significance, should state this appears to be an improvement from most periods and the DCISC will continue to carefully review this trend.** The Members then discussed and decided to delete a Concern based upon the DCISC continuing to monitor PG&E's ongoing program to work with the local, state and federal agencies to assure adequate emergency preparedness in the event of a significant accident. The Committee will continue to monitor the issue vigilantly but it was judged this issue does not require enhanced Committee review or scrutiny.

Dr. Peterson recognized the efforts of Mr. Wardell and Consultant McWhorter and Assistant Legal Counsel Rathie in compiling the Annual Report and, upon his motion, seconded by Dr. Lam, the Committee's 28th Annual Report was unanimously approved. Mr. Wellington reported the 28th Annual Report, with PG&E's response incorporated will be posted on the Committee's website at www.dcisc.org, distributed in two bound volumes, as a CD and, following the Committee's approval, on a usb drive.

Following the discussion and approval of the 28th Annual Report, Dr. Gene Nelson of CGNP was recognized. Dr. Nelson remarked that with regard to the Concern included in the Annual Report regarding the retention of qualified, experienced personnel necessary to operate DCP to the end of its operational lifetime, the only impact to employee retention of which Dr.

Nelson was aware concerned personnel who were in training to become reactor operators. He stated no reactor operators were impacted by proposed changes to 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) to retire DCPD at the expiration of the current operating licenses for each unit.

B. Update on Financial Matters and Committee Activities. The Chair requested Legal Counsel Wellington to provide this report. Mr. Wellington reported that the Committee completed calendar year 2017 and will complete calendar year 2018 within the amount of funding provided by PG&E's ratepayers for the Committee's operation and, following its normal practice, any funds unspent at the end of 2018 should be returned by the Committee for credit to the ratepayers. Mr. Wellington directed the attention of the Committee to the list of planned activities for the remainder of 2018 and for 2019 prepared by Mr. Wardell which was included in the agenda packet for the meeting.

C. Discussion of Issues on Open Items List: Dr. Budnitz requested Consultant Wardell lead a review of items on the Open Items List which Dr. Budnitz described as an important tool used by the Committee to establish priorities and to track and follow technical 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 are captured on the Open Items List which represented changes from the prior 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:

<u>Item</u>	<u>Re:</u>	<u>Action Taken/Next Action</u>
CO-10	Mispositioning Errors	Move to 3Q/4Q19 FF
CO-11	Operator Concerns & Issues	Next Action 12/18 FF PFP/RFW
CO-13	Implementation of CASIO	Next Action 12/18 FF PFP/RFW
	Load-following Policies Resulting in DCPD Transients	
CO-14	Operator Retention Project	Move to 1Q19 FF
CM-13	Maint. Dept. Performance Measures	Next Action 11/18 FF RJB/RDM
EN-31	Engineering Excellence Plan	Next Action 12/18 FF PFP/RFW
HP-25	Management Observation Program	Move to 1Q/2Q 19 FF
HS-6	Safety Culture/SCWE	10/18 Public Meeting
EP-2	Observe Emergency Drills & Exercises	Next Action 3Q19 FF
EP-3	Emergency Preparedness during Decomm.	Add as New Item
		Next Action 3Q19 FF
RA-5	Non Seismic PRA Program	Move to 4Q19 RJB
RA-6	Seismic Fragility Analysis	Move to 4Q19 RJB
QP-3	QV Audits	Move to 1Q19 FF
ER-6	Equipment Reliability Process (new item)	Next Action 12/18 FF PFP/RFW

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).

FEBRUARY 2019 AGENDA PACKET DRAFT – 02-13-2019

SE-49	Emergency Diesel Generators	Next Action 12/18 FF PFP/RFW\SF-
SF-2	Relative Risk - Cask & Pool Fuel Storage	Next Action 4Q19 FF RJB
SF-3	Seismic Adequacy of the ISFSI	Next Action 4Q19 FF RJB
SC-12	Workplace Seismic Safety	Next Action 5/19 FF PFP/RFW
FP-5	Review NFPA 805 Program & System	Next Action 1/19 FF
LD-3	Review Non Licensed Training Programs	Next Action 12/18 FF PFP/RFW
DEC-1	Review Decommissioning Plans	Next Action 11/18 FF RJB/RDM
DEC-4	Differing Categories of Waste Produced	Next Action 12/18 FF PFP/RFW
O-1	Observation of Work Processes in the Plant	Next Action 11/18 FF RJB/RDM
2/18 PM-4	Transportation of Casks Offsite	Next Action 12/18 FF PFP/RFW
2/18 PM-6	List of Cancelled Projects	Next Action Awaiting DCPD
2/18 PM-7	Preventive Maintenance Optimization	Next Action 11/18 FF RJB/RDM
2/18 PM-10	Inspect Non Load Bearing Walls in the 4kvDC Bus Room	Next Action 11/18 FF RJB/RDM
2/18 PM-14	NRC Requirements re Staffing	Next Action 1Q19 FF
2/18 PM-15	Review of County OES Resources	Next Actions 1Q19 FF/June 19 PM
2/18 PM-19	Delivering the Nuclear Promise Initiative	Next Action 12/18 FF PFP/RFW
6/18 PM-6	QV Assessment-Confined Space Program	Next Action 12/18 FF PFP/RFW

List of DCPD Systems/Components Reviewed Periodically

RCS Process Control	Remove Duplicate Item
Margin Management	Review date for next review
Steam Generators	Review after R21 refueling outages

In response to a question from Ms. Lewis, a representative of MFP, during the discussion of the Open Items List the Members confirmed that they discussed with DCPD the possibility of the public having an opportunity to observe an emergency drill but for procedural reasons involving not just DCPD but also County, State and Federal agencies participating in emergency drills it was determined this would not be possible. In response to Ms. Lewis request to receive copies of the reports which are the subject of Open Item RP-12 (DCPD radioactive release reports), Mr. Wardell stated those documents are publicly available through the NRC. Dr. Gene Nelson of CGNP remarked he participated in preparations for an emergency exercise in the past and found that the facilities do not afford much room for observers.

During the discussion of the Open Item List, Judge Alex Karlin was recognized. Judge Karlin remarked it was his impression the DCISC is principally interested at this time in decommissioning matters due to their potential impact during the period of plant generation operations and the DCISC is exploring issues regarding a potential role for the DCISC once the plant ceases generating electricity. Judge Karlin stated he had not recently reviewed the Restated Charter for the DCISC as to the Committee's responsibilities for review during operation and, while the DCISC has considerable technical expertise, the Committee does not represent the community or stakeholders in PG&E's shutdown of DCPD. He observed the DC DEP is a citizen volunteer group which was recently created but he commented the DC DEP may not have sufficient strength and duration as that shown by the DCISC over its more than twenty years of operation. Judge Karlin stated his opinion that it was important for the DC DEP to understand and interface with the DCISC to preclude overlapping efforts and to learn from each other. The

Members and Technical Consultants responded to Judge Karlin and stated that there is a specific item on the DCISC agenda for this public meeting to discuss these and other issues related to decommissioning DCP. Dr. Budnitz confirmed, in response to Judge Karlin's inquiry, that the Restated Charter for the DCISC was approved by a CPUC decision.

Ms. Linda Seeley, a member of MFP and of the DC DEP, was recognized during the review of the Open Items List and she inquired whether the DCISC has expertise in the matter of dry cask storage of spent nuclear fuel. The Members confirmed that the existing procedures and facilities for effecting dry cask storage of spent nuclear fuel is a subject upon which the Committee has engaged in considerable review and if the DCISC continues a review role following shutdown, this is a topic on which the Committee will need to retain its competencies. Ms. Seeley remarked that she has a very strong desire, as a member of the DC DEP, to ensure DCP sets an example of the safest dry cask storage possible and in considering re purposing of DCP facilities post-shutdown, perhaps a research facility focused of safely storing nuclear waste might be an appropriate use.

Dr. Gene Nelson, a representative of CGNP, was recognized during the review of the Open Items List. Dr. Nelson stated it is important to appreciate that the rapid decay rate of radioisotopes found in so called spent nuclear fuel as the longer-lived products have a much lower specific activity and 300 years from the present time the radioactivity from spent fuel will be comparable to that used when newly purified material is extracted.

Items identified in the Open Items List with the agenda packet for this meeting which were identified by Mr. Wardell as appropriate for closure were approved for closure.

A short break followed

VI INFORMATION ITEMS BEFORE THE COMMITTEE

A. Informational Presentations Requested by the Committee. Dr. Budnitz introduced Mr. Bruce Watson, CHP, Chief of the Reactor Decommissioning Branch, Office of Nuclear Material Safety and Safeguards of the NRC. Dr. Budnitz remarked Mr. Watson has important responsibilities for the way the NRC regulates, oversees and assures the safety of decommissioning activities for nuclear facilities. Dr. Budnitz reported Mr. Watson would be making another presentation later that evening to the DC DEP at its meeting in San Luis Obispo, California.

Brief Remarks on Reactor Decommissioning & Proposed Changes to Decommissioning Regulations - Mr. Bruce Watson, Chief, NRC Reactor Decommissioning Branch.

Mr. Watson stated he welcomed the opportunity to speak to the DCISC and provide information on how the NRC accomplishes its mission of ensuring safety and security in safely decommissioning a nuclear power plant including in the management of spent fuel. He commented the NRC is an independent federal agency established to license and regulate the civilian use of radioactive materials in the U.S. and to ensure adequate protection of public health and safety. To carry out this responsibility the NRC has strict rules governing decommissioning of a nuclear power plant involving cleanup of radioactively contaminated plant

systems and structures and the removal of spent fuel. Mr. Watson stated the NRC regulates cleanup of radiological hazards and the cleanup of non radiological hazardous materials is regulated by the federal Environmental Protection Agency (EPA). Site restoration and re utilization is the responsibility of the property owner and the state.

Mr. Watson reported the decommissioning process for a nuclear power plant begins with formal written notification to the NRC by the licensee that nuclear operations have permanently ceased and that the fuel has been removed from the reactor vessel. Within two years after notification of permanent shutdown, the licensee is required to submit its Post Shutdown Decommissioning Activity Report (PSDAR) which must contain a description and schedule for the planned decommissioning, an estimate of the expected cost of decommissioning, and an evaluation of the potential environmental impacts of decommissioning. No significant decommissioning-related activities may take place until 90 days after the NRC receives and confirms the adequacy of this information. A public meeting is held in the vicinity of the power plant to receive public comment on the PSDAR.

Mr. Watson reported there are two primary approaches to accomplishing decommissioning. The first method entails the immediate dismantlement and the second entails deferred dismantlement, or safe-store (SAFSTOR). The licensee is permitted to adopt either method at various periods, i.e., to go back and forth from dismantling facilities to SAFSTOR. Mr. Watson remarked issues such as the potential dose to its workforce, the availability of decommissioning funds, access to low-level waste burial sites, potential reuse of the site and stakeholder input are just some of the factors licensees use to make a decision. Mr. Watson reported that the NRC requires decommissioning be completed within 60 years of the cessation of plant operations. NRC oversight continues throughout all phases of the decommissioning process to determine and ascertain that decommissioning activities are conducted safely, spent fuel is being stored safely and activities at the site are conducted in accordance with applicable regulations and commitments and the administrative controls put in place by the licensee are adequate and comply with regulatory requirements. Those controls include self-assessments, audits to identify any declining trends, corrective actions, design controls, safety reviews, maintenance, surveillance, radiation protection and effluent control. Mr. Watson reported that at least one NRC resident inspector remains onsite during initial decommissioning phases, until the complexity and risk are suitably reduced and then NRC oversight shifts to specialized inspectors assigned from the NRC regional offices or from NRC headquarters.

Mr. Watson reported the public has several opportunities to participate in the decommissioning process including after submission of the PSDAR, following the NRC's receipt of the termination plan and prior to the issuance of any license amendments, NRC meetings with its licensees are open to the public except when a discussion involves proprietary information, safeguards or classified materials.

Before commencing nuclear operations, Mr. Watson stated the licensee must establish a financial mechanism such as a trust or guarantee to ensure sufficient funds will be available to pay for decommissioning and when the plant is operating must report to the NRC every two years on the status of this funding for each reactor. This report must estimate the minimum amount required for decommissioning using formulas developed by the NRC. Mr. Watson reported that many factors can affect the cost of decommissioning and those costs, that is, the

cost for radiological decommissioning only, have ranged from \$280 million to \$612 million. He reported the latest decommissioning funding status report to the NRC for DCPD submitted by PG&E in 2016 show that DCPD Unit-1 has \$1.2 billion and Unit-2 \$1.5 billion for decommissioning costs. In response to Dr. Budnitz' inquiry, Mr. Watson reported these funds could be designated for the entire cost of decommissioning, as some utilities differentiate between radiologically-related costs and total cost and some do not. Mr. Watson confirmed in response to Dr. Lam's inquiry that if PG&E reserved exactly the minimum amount presently required for radiologically-related decommissioning costs that the NRC would not impose additional financial requirements. Mr. Watson stated that a plan with such a minimal amount would, over a maximum lifetime of 60 years, be expected to reasonably increase in accordance with a formula developed by the NRC to be sufficient to complete radiological decommissioning. Mr. Watson reported that it is the individual states' public utilities commissions that regulate collection of decommissioning funds.

Dr. Peterson remarked that it is well known that almost anything done in California may be expected to be more costly than if it were done in another state and he inquired if this was factored into the NRC's funding requirements. Mr. Watson responded that the utilities operating within California are expected to know and understand the costs and the processes which will need to be followed in decommissioning a nuclear power plant and to address the matter of the cost with the CPUC to ensure the utilities receive adequate funding.

In closing his remarks, Mr. Watson stated he welcomes the DCISC's interest in the NRC's regulatory mission as it pertains to decommissioning and he will discuss later in the evening at the DC DEP's public meeting, which the Members of the DCISC will attend, the proposed rulemaking changes under consideration which may affect decommissioning which he stated are intended to make the process more efficient. In response to Dr. Budnitz' inquiry Mr. Watson stated the proposed changes are principally changes to administrative guidance and will not result in any substantive changes in the level of protection or the safety significance afforded by the present regulations governing decommissioning. Mr. Watson gave as an example changes to the emergency plans based upon risk significance as fuel is moved to dry storage, under the expected proposed rulemaking this would be codified as opposed to requiring a license amendment as is the case under the current regulations. He agreed with Dr. Lam's characterization of the proposed rulemaking as intended not as a change in the level of safety but rather as a change to how that same level of safety is accomplished.

In response to Dr. Budnitz, Mr. Watson confirmed, although the functional levels of its review change, for example with emergency planning, environmental monitoring, security and radiation exposure for the workforce, over the term and progress of decommissioning the NRC remains involved while spent fuel remains in the spent fuel pools, as it is transferred and finally entirely contained in dry cask storage but decommissioning activities are continuing, and finally upon conclusion of decommissioning when all fuel is in casks. Mr. Watson remarked that the NRC's principal inspectors during the dismantling phase are health physicists. Mr. Watson reported the NRC has considerable experience with decommissioning, having terminated licenses for more than 80 nuclear facilities including ten nuclear power plants under its rules since 1997.

In response to Consultant McWhorter's inquiry, Mr. Watson reported the reports which a licensee submits every two years to confirm a reasonable amount of funding exists to decommission a facility are not site-specific. The site-specific decommissioning cost estimate is provided to and reviewed by the NRC five years prior to a plant's permanent cessation of operations and must be updated in the PSDAR. Once the plant enters decommissioning, a decommissioning funding report is required to be submitted by the licensee every year. Mr. McWhorter remarked and Mr. Watson agreed that for DCPD that date is fast approaching. Mr. Watson remarked that with reference to any of the nuclear power plants decommissioned or being decommissioned in California to date no funding issues have been identified. In response to Dr. Lam's observation, Mr. Watson stated the licensee's trustee of the decommissioning funds is permitted to invest the funds in certain investments to ensure a minimum rate of return of two percent above inflation.

Following Mr. Watson's presentation, the floor was opened for comments by members of the public.

Dr. Gene Nelson, representing CGNP, was recognized. Dr. Nelson remarked that decommissioning funds are collected by PG&E at the rate specified by the CPUC. He stated concerning the issue of regulation, he is amongst a group of scientists and engineers who have criticized the reliance by the NRC in its official filings on what he described as a scheme called Linear No Threshold or LNT which Dr. Nelson stated lacked a rigorous scientific basis. He referred the Committee and Mr. Watson to an article in Forbes magazine by Dr. James Conea and stated that the issue of reliance on LNT is one the nuclear industry will have to confront in the future.

Judge Alex Karlin was recognized and stated his remarks concerned the legal status of the proposed rulemaking discussed by Mr. Watson and he remarked that while Mr. Watson's organization and others at the NRC have been working diligently for a number of years, the proposed rules have yet to be formally proposed as they have not yet gone to the NRC Commissioners for approval, after which there will be an opportunity for public comment. Judge Karlin stated it is his understanding the NRC is seeking to issue the final rules by the end of 2019.

Ms. Sherry Lewis, a representative of MFP was recognized. In response to Ms. Lewis query, Dr. Budnitz confirmed the amounts cited in Mr. Watson's presentation as available with respect to Unit-1 and Unit-2 represented funds presently available and no information was presented by Mr. Watson concerning what the final cost of decommissioning both DCPD units might be and NRC regulatory provisions are in place concerning how those funds may be invested. In response to Ms. Lewis question as to the effect of a bankruptcy by PG&E, Drs. Peterson and Budnitz stated that when PG&E entered bankruptcy in 2001 decommissioning funds were protected.

Ms. Linda Seeley, a Member of the DC DEP, was recognized. In response to Ms. Seeley, Dr. Budnitz confirmed that a large set of NRC regulations and regulatory guidance now exists concerning decommissioning and Ms. Seeley's impression that license amendments were required as decommissioning-specific regulations were absent was incorrect. Mr. Watson confirmed, in response to Ms. Seeley's query, that PG&E would have the option at times to

switch from actively decommissioning DCPD to SAFSTOR, provided the facility was completely decommissioned within 60 years.

Mr. David Weisman, a representative of A4NR was recognized. Mr. Weisman remarked that a principal concern expressed by members of the public during meetings of the San Onofre Community Engagement Panel was a lack of trust in the oversight role of the NRC as the regulator of decommissioning the San Onofre Nuclear Generating Station (SONGS). Mr. Weisman remarked that SONGS efforts to replace its steam generators resulted in a fiasco for which Southern California Edison International, the operator of SONGS, Mitsubishi, the manufacturer of the failed steam generators, and the NRC were all responsible. He observed that when SONGS announced plans for replacement of its steam generators in response to letters of concern from U.S. Senators Feinstein and Boxer the NRC assured the Senators and the public that special oversight and inspection would be conducted. Instead the steam generators malfunctioned and led to the premature closure of SONGS with South California Edison's ratepayers having to pay hundreds of millions of dollars. Mr. Weisman observed that this leads him to the conclusion that when the NRC fails to regulate, it is the ratepayers who suffer financially.

Mr. Weisman remarked that a recent issue with SONGS spent fuel loading campaign when a spent fuel canister became stuck on a small metal lip has led to a shutdown and a cancellation or hold on SONGS cask loading campaign as procedures and protocols will need to be rewritten and for which ratepayers will eventually pay. Mr. Weisman commented that while the issue with the stuck spent fuel canister occurred on August 3, 2018, and was reported to the NRC on August 6, 2018 during a telephonic exit meeting with the NRC. Subsequently on August 8, 2018, the inspection report, the result of a year-long inspection, concluded that SONGS met all required activities identified in the Holtec firm's (the manufacturer of SONGS' HI STORM spent fuel storage system) certificate of compliance with one non cited violation identified for design control of field changes and without recognition of what Mr. Weisman stated Southern California Edison now recognizes is an unacceptable condition. He remarked the NRC's failure of oversight somehow ends up costing Californians although the authority granted to the NRC by the federal government prevents Californians from having much say in these matters.

Mr. Weisman closed his remarks by observing there are verifiable reasons to believe the suspicions of those who suspect the NRC's regulations may not be as robust as claimed. Mr. Watson remarked in response to Mr. Weisman's comments that with respect to spent fuel management, utilities receive reimbursement from the U.S. Department of Energy so costs cited by Mr. Weisman may not necessarily come directly from California ratepayers. Mr. Watson observed that trust must be earned and built upon and with any individual mishap trust is immediately attacked.

The Chair reminded the members of the audience and those viewing the public meeting on the internet through a livestream feed, that Mr. Watson would be making another presentation later that evening to the DC DEP.

VII COMMITTEE MEMBER REPORTS AND DISCUSSION

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

Mr. Wellington directed the Members' attention the green colored pages in the agenda packet for this public meeting which list all of the DCISC's scheduled public meetings and fact-findings to date. He reported the next public meeting of the Committee is presently scheduled for February 13-14, 2019 but that meeting will be subsequently rescheduled later in this meeting. Subsequent public meetings are now scheduled for June 5-6 and October 23-24, 2019.

The Members turned to the matter of confirming and scheduling public meetings of the DCISC. Public meetings are now scheduled for February 13-14, 2019 (subsequently changed to February 27-28, 2019), June 5-6, 2019 (the original date for the June 2019 having been changed from June 19-20, 2019), October 23-24, 2019, and a public meeting was scheduled for February 12-13, 2020.

Fact-finding visits were confirmed and scheduled as follows²:

[2018] November 7-8 RJB/RDM; December 12-13 PFP/RFW; and

[2019] January 23-24 PL/RDM; March 18-19 RJB/RFW; April 17-18 PL/RDM; May 8-9 PFP/RFW; July 16-17 RJB/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.

The Members and Consultants observed that the fact-finding schedule is subject to change based on emergent activities at DCPD.

B. Documents provided to the Committee: Mr. Wellington directed the Committee's attention to the list of documents received since its last public meeting in June 2018. A copy of the list was included with the public agenda packet for this meeting.

VIII TECHNICAL CONSULTANT & LEGAL COUNSEL 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 DCPD. Mr. Wardell reported on the July 10-11, 2018 fact-finding visit to DCPD with Dr. Peterson. Mr. Wardell stated activities conducted and topics reviewed with PG&E during that visit included the following:

➤ Annual Radiological Release and Environmental Monitoring Reports - Mr. Wardell stated these reports document radiation releases, planned and otherwise. All releases in

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

the Annual Radiological Release Report were planned and measured releases during the report period and represented very low fractions of permitted releases. Mr. Wardell reported the Environmental Monitoring Report showed a person at the site boundary 24 hours every day for 365 days would have received one millirem of radiation exposure due to the proximity of DCPD which compares very favorably to the annual average of 300 millirem for someone living in the U.S. Mr. Wardell reported since DCPD began operation there have been no increases in background radiation levels around the site.

➤ NRC Generic Issue GSI-191, Containment Sump Debris - Mr. Wardell described this as a long-standing issue and reported DCPD has increased the size of the Containment sumps twice and performed analysis of chemicals which could accumulate in the Containment sump during a loss of coolant accident and analyzed the effect on water recirculation and cooling. DCPD needs to complete some calculations and to incorporate design changes into the plant's design basis. When this is accomplished it is anticipated the NRC will issue a closure letter and Mr. Wardell reported DCPD expects to close this important and very complex issue by September 2019.

➤ System Engineering Staff Turnover - the fact-finding team met with System Engineering organization management to review turnover in the System Engineering Program. Mr. Wardell reported the turnover was principally related to personnel transferring within the station and the System Engineering organization is increasing hiring efforts, implementing a summer intern program, and bringing new engineers into a career engineering program to provide them with a diverse base of experience within the Engineering organization. The Engineering Fix-It-Now (EFIN) Program has been expanded to take part of the workload from the system engineers, administrative burdens have been reduced, and the Component Engineering Program has been expanded. Future staffing needs are also being assessed.

➤ **Quality Verification 2R20 Outage Assessment - Quality Verification (QV) found that operators during 2R20 did not take appropriate action to verify equipment configuration and the issue was identified as an Area Requiring Management Attention And placed in the Corrective Action Program. Mr. Wardell stated the DCISC would follow up on this issue at the December 2018 fact-finding.**

➤ Workplace Seismic Safety - Mr. Wardell stated DCISC review includes identification of items including furniture the displacement of which could injure personnel or block access to critical areas in the plant. Some deficiencies were identified in May 2018 and Mr. Wardell reported the fact-finding team found all these to have been corrected and were caused by personnel turnover the Building Services organization. **A formal plant program is now in place and Mr. Wardell reported this item will be reviewed during Dr. Peterson's May 2019 fact-finding.**

➤ Observe Alignment Workshop - this workshop was conducted to foster the alignment of employees to the DCPD Excellence Program and on the goals and expectations set by management. Mr. Wardell stated the workshop included a good discussion.

➤ Meeting with Senior Director, Nuclear Services, Jan Nimick - Mr. Wardell and Dr. Peterson discussed with Mr. Nimick the System Engineering organization staffing issues, the

fact-finding team's experience concerning workplace seismic safety, the Site Alignment Workshop and a possible future role for the DCISC following plant shutdown in 2025.

➤ Meeting with NRC Senior Resident Inspector - the fact-finding team met with the Senior NRC Resident Inspector to discuss the role of the NRC's Office of Decommissioning, learned the NRC's annual public meeting is to be held on August 28, 2019, discussed issues related to employee engagement in work, and the DCISC and NRC's review of employee engagement and staffing.

➤ Preventive Maintenance Optimization Initiative - Mr. Wardell described this initiative as a cost and personnel savings effort which involves a cross-discipline team reviewing the more than 12,639 preventive maintenance activities to assess the need for and optimize these activities by determining the appropriate frequency and correct scope. **The cross-discipline team has reviewed 8,474 preventive maintenance activities and eliminated 1,148, changed the frequency of 2,151 and changed the scope of 219 and Mr. Wardell described this as good progress. He reported the DCISC will review these efforts at a fact-finding in December 2018.**

➤ Independent Spent Fuel Storage Installation (ISFSI) Operations Update - Mr. Wardell stated the ISFSI was in a loading campaign at the time of the July 2018 fact-finding and this successful campaign concluded in August 2018. Future campaigns are planned for 2020, 2021 or 2022. Mr. Wardell reported DCPD plans to begin efforts to relicense the ISFSI in 2022 as the license from the NRC will expire in 2024 or 2025. The fact-finding team also reviewed the issue of the potential for stress corrosion cracking and through-wall cracking of the spent fuel canisters and Mr. Wardell reported these issues will be addressed in the relicensing. Dr. Budnitz observed that DCPD has a new seismic hazard site evaluation which the DCISC will review in context of the license renewal for the ISFSI.

➤ Nuclear Fuel Procurement Process - Mr. Wardell stated the fact-finding team reviewed with DCPD nuclear fuel engineers' plans to change the fuel cycle, which has typically been 21 months, in preparation for plant shutdown in 2024-2025. He reported DCPD will be using 18-month cycles through the end of plant operations in 2025 so as to schedule outages in spring and fall and Mr. Wardell reported the DCISC representatives found there would be little or no impact on nuclear safety from this change.

Dr. Gene Nelson of CGNP was recognized and he remarked one of the issues involved with a 21-month refueling cycle is it requires refueling outages to be moved into periods of peak demand for electricity and, as DCPD provides 9%-10% of California's electric power generation, that is a significant consideration and he reported the California Independent System Operator (CAISO) was required to declare a stage one emergency on the power grid last year due to a heat wave and peak demand during a refueling outage.

Upon a motion by Dr. Lam, seconded by Dr. Peterson, the July 10-11, 2018 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 Consultant McWhorter to report on a fact-finding visit to DCPD. Mr. McWhorter reported on the August 22-23, 2018 fact-finding visit to DCPD with Dr. Lam. Mr. McWhorter stated topics reviewed with PG&E during that visit included the following:

- Meet with NRC Resident Inspector - the fact-finding team discussed with the NRC Senior Resident Inspector the mission times used in operability evaluations when equipment is declared inoperable to determine how long the plant can operate without affecting safety function and what design basis documents are necessary to establish those times for purpose of operability evaluations. Mr. McWhorter reported the NRC has opened an unresolved item on this issue. Dr. Lam and Mr. McWhorter also reviewed the Preventive Maintenance Optimization Program with the Senior Resident Inspector and confirmed the NRC is also reviewing that program to ensure that any reduction in maintenance is appropriate.
- Observe Licensed Operator Continuing Training - Mr. McWhorter described this as a routine class for licensed and non-licensed operators conducted as a regular part of operators' rotating schedule which provides one week of training every five or six weeks for a total of 10-12 weeks training each year. The Operations Training Program is accredited by the Institute of Nuclear Power Operations (INPO) and Mr. McWhorter described it as a very structured, formal program. The subject matter of the class observed by the DCISC fact-finding team was the new emergency action level scheme developed through a guidance document developed by the Nuclear Energy Institute (NEI) and approved by the NRC. The class involved the use of the emergency action level flow chart which is posted in the Control Room and in the emergency centers and is utilized to determine the proper classification for an event which must usually be done within 15 minutes. Mr. McWhorter stated the instructor provided guidance on the use of human performance tools and in conservative decision making. He described the class as well conducted and the instructor as well prepared and including appropriate interaction with the class asking appropriate questions which were focused on the objectives. Mr. McWhorter reported that following their observation of the training class he and Dr. Lam had lunch with some of the operators and had a very good dialogue. He reported operators indicated they were satisfied in their jobs and expressed pride in the safety record established for DCPD and voiced no safety concerns, but the operators did express concern for the future including regarding the effectiveness of the second tranche of the Employee Retention Program. Mr. McWhorter reported the fact-finding team was sensitive to any subtle indications that operational staff morale was being negatively affected by the pending closure of the plant.
- Learning Services Department Performance - Mr. McWhorter reported the Learning Services Department is responsible for the plant's training program and is presently rated in Green status³ which represents an improvement over White status for the last few years. He

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

described the resolution of several long-standing issues with the Simulator as being the result of upgrades to that facility and principally responsible for its improved health status. The Learning Services Excellence Plan was reviewed and includes several action steps to be taken in the next one or two years to further improve performance. Mr. McWhorter reported there will be an NRC Requalification Inspection scheduled for next spring and DCPD is working with a pilot program developed by INPO for changing the requalification examination process and is working to improve the Expert Instructor Development Program to increase the depth of knowledge and instruction ability of the training program instructors. The fact-finding team reviewed staff turnover in the Learning Services Department and found the supervisory staff to have been relatively stable but with slightly more turnover than expected for other personnel. Mr. McWhorter observed that Learning Services operations will ramp down over time as the plant approaches cessation of operations. There is an initial operator class forming for 2019 but over time there will be no more such classes offered. Mr. McWhorter reported overall the DCISC team found the performance of the Learning Services Department to be appropriately focused on maintaining excellence in training services during a period of significant transition.

➤ National Fire Protection Association 805 Program (NFPA 805)- the DCISC fact-finding team confirmed DCPD completed transition to NFPA 805 regulations as scheduled in mid-2018 including modifications to Unit-2, accomplished during Unit-2's most recent refueling outage, and making final programmatic changes for Unit-2 after that outage. Mr. McWhorter reported there is some work remaining to close out documentation and a matrix will be prepared of the more than 900 documents pertaining to the transition to NFPA 805. **The NRC will conduct its triennial Fire Protection Inspection which will be the first such inspection since implementation of NFPA 805 and the DCISC will review the results of that inspection early in 2019.** Mr. McWhorter stated the DCISC fact-finding team concluded DCPD satisfactorily completed its implementation of the NFPA 805 regulatory program including physical modification and programmatic processes.

➤ DCISC Member's Meeting with DCPD Officer - Dr. Lam met with PG&E Vice President, Nuclear Generation, and Chief Nuclear Officer Mr. Jim Welsch to review the plant's efforts to continue implementation of the requirements of the Joint Proposal to retire DCPD by 2025 and concerning the role and activities of the DC DEP. Dr. Lam stated he found these priorities to be well placed.

➤ Operating Experience Program - Mr. McWhorter reported the Operating Experience Program processes approximately 35 to 50 operating experience notifications each week which come from the INPO consolidated event reporting system and from the NRC, vendors, peer committees and from exchanges with other nuclear facilities. These are entered into the Operating Experience database, managed by the Operating Experience coordinator, and are forwarded to a DCPD subject matter expert for review for determination if the information is applicable to DCPD. For those found applicable a record is created in the database of the disposition of the information and further review is conducted which must be completed within 60 days to determine if corrective actions are necessary. Mr. McWhorter reported the Operating Experience Program is in Green health status and the fact-finding team concluded DCPD continues to effectively manage operating experience.

➤ Meteorological Information and Dose Assessment System (MIDAS) - MIDAS software

is used to assist in making emergency protective action recommendations in the event of a release of radiation and MIDAS uses information from weather reporting, radiation monitors and field monitoring team to determine areas which could be subject to radiation at certain levels. Mr. McWhorter reported MIDAS software has been in service since 2015 and has been updated several times. MIDAS is a different system from that used by San Luis Obispo County and the NRC and that system, known as RASCAL. MIDAS and RASCAL sometime produce differing outputs with MIDAS using very site-specific weather data whereas RASCAL uses National Weather Service data. Both systems work to provide data to decision makers. Approximately 20 persons maintain MIDAS qualifications and are assigned to the four emergency response teams. Mr. McWhorter stated the DCISC team concluded MIDAS continues to be properly maintained and is ready for use in the event of an emergency.

➤ Chemistry Department Performance - Mr. McWhorter reported, overall, the Chemistry Department is in Green health status. The Chemistry Effective Indicator measures the chemistry in the secondary feedwater that is supplied to the steam generators and has found minimal deposits and very low levels of sludge within the steam generators. The Chemistry Department also measures chemistry on the primary side for the reactor coolant with no major issues identified. The Chemistry Department is fully staffed but staff will be reduced as the plant approaches its closure date. The DCISC fact-finding team concluded the Chemistry Department performance remains good and the Department is maintaining proper primary and secondary side chemistry.

➤ Reactor Coolant System (RCS) Health - Mr. McWhorter reported the RCS transfers heat from the reactors to the steam generators and also serves as a primary pressure boundary for preventing a release of radiation. Issues were previously identified concerning the reactor coolant pump (RCP) seals and significant work has taken place to change electrical and pump seals over the past few years and performance of these seals has generally been improved. Mr. McWhorter reported issues were identified with pressurizer safety valve leakage during reactor start-up. DCPD engaged a third party consulting firm to perform an analysis which determined that the leakage was due to stress being caused by thermal expansion on the tailpipe which put stress on the safety valve. A modification was performed on Unit-2 during its last refueling outage to reconfigure the tailpipe to better accommodate thermal expansion and the leakage was thereby eliminated. A similar modification is planned for Unit-1 during its next refueling outage. Overall, the RCS is rated in White health status which is due in part of flaws in the Residual Heat Removal System (RHR) penetrations on the RCS for which exemption requests have been submitted to the American Society of Mechanical Engineers for Section 11 evaluations until overlays can be completed on both units. The RCS also has issues related to the RCP Vibration Monitoring System ability to retain data and Mr. McWhorter replied this system is scheduled to be replaced. Mr. McWhorter reported that during an NRC Design Basis Inspection of the power operated relief valves, electrical cables were found not to meet equipment qualification guidelines as they lacked loops in the conduit such that water running downward would drip from the conduit and would not be prevented from running onto the electrical connections on the valves. Mr. McWhorter reported the DCISC fact-finding team found the RCS health to be acceptable with some emerging issues.

Following Mr. McWhorter's presentation, Dr. Gene Nelson of CGNP was recognized. Dr. Nelson stated that he attended a meeting of the American Nuclear Society's Utilities

Working Group and learned from a vendor at that event how static electricity, when a three-phase drive is used to run a pump, can cause erosion of pump seals and he wanted to alert the DCISC to what he described as a rather curious phenomenon.

Upon a motion by Dr. Peterson, seconded by Dr. Lam, the August 22-23, 2018 Fact Finding Report was approved and its transmittal to PG&E authorized.

The Chair called upon Legal Counsel Wellington to report on administrative, regulatory and legal matters.

Mr. Wellington reported that the general information brochure and the informational video used to disseminate information about the DCISC to member of the public have recently been updated. He reported that with the passage of SB 1090 and the signature by the Governor, full funding has now been restored to the Employee Retention Program. In concluding his report, Mr. Wellington stated the Committee's website presently averages 930 unique visits each month with most visits coming from, in order, the U.S., Canada, Uzbekistan, Russian and Germany.

IX ADJOURN AFTERNOON MEETING

The Chair thanked the technicians of AGP Video who provide recording and livestream broadcast of all DCISC public meetings and announced the DCISC would resume this public meeting at 8:30 A.M. on the following day. He then adjourned the afternoon meeting of the DCISC at 5:15 P.M.

X RECONVENE FOR MORNING MEETING

Dr. Budnitz reconvened the morning meeting of the DCISC at 8:30 A.M. and welcomed those present.

X COMMITTEE MEMBER COMMENTS

Dr. Budnitz introduced and briefly reviewed the backgrounds of his colleagues on the Committee, Drs. Peter Lam and Per Peterson, the Committee's Technical Consultants Mr. R. Ferman Wardell and Mr. Rick D. McWhorter, and Deborah Mall, Esq., an attorney with the DCISC Legal Counsel's office.

XI PUBLIC COMMENTS AND COMMUNICATIONS

Dr. Lam recognized and acknowledged the presence in the audience of Dr. Justin Cochran, California Energy Commission (CEC) Senior Nuclear Policy Advisor and he invited Dr. Cochran to address the Committee. Dr. Cochran stated he was present to represent CEC Chair Dr. Robert B. Weisenmiller and Dr. Weisenmiller sends his appreciation to the Committee and its staff for the important work they perform each year. Dr. Cochran stated he looks forward to the information to be presented at this public meeting and to reviewing the associated reports produced by the Committee.

XII INFORMATION ITEMS BEFORE THE COMMITTEE

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

The Chair introduced the PG&E and the other presentations to be made at this public meeting and remarked they were placed on the agenda at the request of the Committee. He requested Mr. Cary Harbor, Director of Nuclear Business Operations, to introduce the first of the informational presentations requested by the Committee for this public meeting. Mr. Harbor stated he has more than 30 years of experience in the nuclear industry at DCPD in functional areas including Operations, Maintenance, Construction, and Regulatory Services. Mr. Harbor then introduced Mr. Tom Jones, Director of Strategic Initiatives at DCPD, and Mr. Harbor reported Mr. Jones has more than 20 years of experience in regulatory and governmental relations issues.

Update on the Status of DCPD Decommissioning Planning, the Community Engagement Panel, Funding, and Proposed Changes to the NRC Decommissioning Regulations.

Mr. Jones reported California Senate Bill 1090 was approved by Governor Brown on September 19, 2018 and this legislation directed the CPUC to revise CPUC Decision 18-01-022, which approved retirement of DCPD, to increase funding to the full amount proposed by PG&E for the Employee Retention Program and to reinstate the Community Impacts Mitigation Program. Mr. Jones stated SB 1090 results in all of the commitments made in the Joint Proposal and the settlement process being met.

Mr. Jones reported DCPD experiences a turnover rate of approximately 100 employees, out of 1,500 total DCPD employees, each year and 94% of the current eligible workforce are now enrolled in the first tranche of the Employee Retention Program and he displayed graphs of the retention program statistics and demographics and reported that employees over the age of 60, who are closest to retirement constitute some of the DCPD workforce who have opted not to participate in the Employee Retention Program. He reported DCPD employees fall into two main groups, those younger than 40 and those older than 50 with a “gap” between the ages of 43 to 51. Mr. Jones reported the 94% participation rate is higher than other employee retention programs benchmarked by DCPD which averaged participation rates around 85%. He reported that following passage of SB 1090, which increased the retention incentive from 15% to 25% of employee compensation, employees were allowed to re enrolled in the program and those previously enrolled were automatically continued at the higher rate. Tranche one will continue now with the enrolled population until 2021. **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.** Mr. Jones confirmed Consultant McWhorter’s observation that tranche two of the Employee Retention Program will provide information on continuing opportunities with PG&E for employees whose positions at DCPD will be phased out as the plant moves toward closure by 2025. Mr. Jones observed that some of the DCPD workforce will be eligible for

severance payments at that time. Mr. Harbor remarked that CPUC funding for retraining will not be released until 2021 but PG&E will use existing programs to assist its employees in developing skills necessary to secure continued employment. Mr. Jones reported DCPD employees have participated in rotation programs where crafts personnel from DCPD were assigned to other PG&E facilities and these rotation efforts will continue with a full program scheduled for roll out in 2021.

Mr. Jones stated the Joint Proposal provides for emergency planning to continue at current levels until such time as the Plant's 10 CFR Part 50 License from the NRC is retired. California Assembly Bill 361 provides for PG&E and other agencies which support nuclear-related emergency planning activities for operating nuclear facilities to be reimbursed. The Joint Proposal, CPUC Decision 18-01-022, and SB 1090 provide for PG&E to seek continued funding in the Nuclear Decommissioning Cost Triennial Proceedings (NDCTP) filings with the CPUC for local governments' emergency planning purposes after the plant ceases generation activities. In response to Dr. Peterson's observation, Mr. Jones confirmed that the NRC's regulatory framework for emergency planning is risk-informed and so will change as the hazards change, including no longer having site area emergency or a general emergency designations, but DCPD expects a higher level of funding support than usual will be available for the San Luis Obispo County emergency response capabilities. Mr. Jones displayed and discussed a graph of the timeline for emergency planning efforts, the future phases of operation and the dates in which they are anticipated to occur.

Mr. Jones reported the Nuclear Decommissioning Cost Triennial Proceeding (NDCTP) establishes estimates for funding requirements to undertake decommissioning of the facility and PG&E believes that, at present, it is underfunded with funding approval being \$2.7 billion. He reported the SONGS Decommissioning Trust is currently funded to approximately \$4.4 billion. He reported for the 2018 NDCTP, PG&E will be providing a site-specific estimate as previous NDCTP filings for DCPD used a generic study prepared by TLG Services, Inc. (TLG) used by the industry which is ostensibly only for radiological remediation and does not include all the activities required by the State of California and the County of San Luis Obispo. Mr. Jones reported that decommissioning DCPD will in some ways be more challenging than decommissioning SONGS as site access is more limited and a significant portion of decommissioning costs are driven by the distance from the facility to a waste repository. Mr. Jones agreed with Dr. Budnitz' observation and with Mr. Watson's statements made during the meeting of the DC DEP held the previous evening that the \$2.7 billion on hand is adequate for to cover the scope of radiological decommissioning but it is the other costs which will need to be assessed in the 2018 and future NDCTPs and he confirmed Dr. Budnitz observation that the SONGS data could be in some ways representative of the total cost to decommission DCPD. Dr. Peterson observed California's permitting process has created challenges for SONGS and Mr. Jones remarked that the carrying costs which result from unplanned enforced delay are quite significant and the TLG study found those costs for DCPD to be \$85 million per year and therefore DCPD intends to commence efforts in 2019 to obtain the required permits and he stated that advanced planning will be essential in these efforts.

Mr. Jones stated the NDCTP includes the official cost estimates for decommissioning the facility and reviews the decommissioning projects from the previous NDCTP filing. He remarked PG&E in its prior NDCTP filing did not do an adequate job in meeting the CPUC

burden of evidence requirements on a number of topics including security, removal of the Intake Cove breakwater and waste disposal costs. The NDCTP also reviews the financial performance of the trust funds. He provided a timeline of the NDCTP process which typically takes 14-15 months and provides an opportunity for the participation of intervenors in the proceedings. He remarked PG&E is expecting there will be more entities and agencies seeking to participate as intervenors in its 2018 NDCTP.

Mr. Jones reported that PG&E's preferred approach to decommissioning DCPD is for the plant to proceed directly into active decommissioning rather than enter the period known as SAFSTOR. He stated PG&E is using a "bottom up" approach to reach an estimate of the cost of decommissioning and has launched the DC DEP to provide a broad public outreach program to ensure input is received from the local community and is also seeking input from the regulator. The next NDCTP filing is due to be submitted to the CPUC in December 2018 with subsequent filings due in 2021, which Mr. Jones described as an update, and in 2024, for what he described as a true-up estimate. He reviewed the direction from Decision 18-01-022 which required a public stakeholder process before disposition may be made of the DCPD facilities or land and he observed that the decommissioning projects contemplate there will be some re purposing of assets and disposition of land which includes at present 14 miles of coastline and 12,000 acres. He displayed an aerial photos and briefly discussed PG&E's approach to conducting this required public outreach which includes the DC DEP, the plant tour program, public talks and a speaker's bureau, digital and social media campaigns and outreach to elected and appointed officials, DCPD employees and the NRC. He provided what he termed a dashboard of the interest in various topics with the disposition of the land being by far the greatest area of interest to date. In response to safety, Mr. Jones reported that expression of interest may be lower than other areas due to the plant's excellent safety record and decommissioning because is still seen as something that will occur far in the future.

Mr. Jones remarked PG&E has met with the California State Lands Commission on the issue of the potential removal of the Intake Cove breakwater which would require the expenditure of \$300 million and the movement of more than 700,000 cubic yards of material. He confirmed Dr. Peterson's observation that the breakwater currently serves as a reef area and provides a very healthy marine environment in the Intake Cove. Prior to the imposition of a one-mile marine exclusion zone offshore from the plant, the Intake Cove served as a harbor of safe refuge for mariners. He then displayed photographs with overviews of the plant site showing the various areas of lands presently lying within PG&E's control and commented the lands to the south of the plant site are held by the Eureka Energy Company, an unregulated affiliate of PG&E, while the plant site consisting of more than 700 acres is subject to the 10 CFR Part 50 License restrictions. He remarked that facilities on the plant site are much larger than other facilities located elsewhere in San Luis Obispo County with the DCPD Administration Building consisting of 150,000 square feet which is 50% larger than the largest building in downtown San Luis Obispo. He reported interest has been expressed by the California State University system in some of the facilities but an anchor tenant must have sufficient resources available to be able to run the sewage and desalination systems which serve DCPD's facilities.

In response to Mr. McWhorter's question, Mr. Jones reported the 230kV Switchyard will be removed but the 500kV Switchyard will remain as it is a key part of the grid route which runs to Fresno and to Bakersfield. Mr. Jones remarked there is presently interest in development of

offshore wind power and the area of DCPD might serve as a natural adjunct to those efforts. He reported when Morro Bay Power Plant closed some years ago there was significant development of solar power facilities on the Carrizo Plain which resulted in two of the ten largest solar plants in the world now being located in San Luis Obispo County.

In response to Consultant Wardell's question as to the date of 2068 being given as the date for pickup of dry cask storage of spent fuel, Mr. Jones stated this date was an estimate and PG&E's Phase 3 of its decommissioning efforts has a long life. Mr. Jones stated that the project phasing is all predicated on a successful 2018 NDCTP filing which will then lead into the approval phase where approval of discretionary actions will be sought from the NRC for license amendments as necessary. Concurrently, PG&E will pursue modifications to its lease with the State Lands Commission and go to the California Coastal Commission and potentially the County of San Luis Obispo for development permits, as he pointed out removal of facilities is considered as development under California law. Once approvals are in hand PG&E will move to the decommissioning phase, which for Phase 2 would include removal of the Intake Cove breakwater, with Phase 3 consisting of the removal of dry cask storage which, based on projections from the U.S. government, could see fuel shipped offsite in 2065-2068 with a few years more necessary to remove the ISFSI and restore the site completely by 2072. Mr. Jones stated all this is clearly an estimate but must serve as the basis for regulatory guidance.

In concluding his presentation, Mr. Jones displayed and discussed a photo showing the areas and facilities involved for the various decommissioning project phases and he remarked that if facilities were re purposed, there could be a savings to PG&E's ratepayers as under decommissioning regulations in California there is no profit allowed to the utility for decommissioning. He then displayed and discussed another graphic showing the regulatory process for the period 2018-2025 and the numerous activities and associated guidance principles which include maintaining high safety standards in performing all decommissioning work. Mr. Jones remarked that some of this work will be nuclear-related and be contracted out to a specialized workforce but much of it is a massive demolition project.

In response to Dr. Lam's comment Mr. Jones confirmed that he works with PG&E's Director of State Agency Relations, Mr. Mark Krause, on decommissioning issue and a succession program is in place to ensure PG&E is not dependent on one or a few individuals for its decommissioning efforts. He reported there are approximately 25 persons now working on regulatory issues and the decommissioning team now consists of 30 more individuals to assist with contract management for the more than 100 contractors who are assisting in the development of cost estimates. Mr. Jones reported the decommissioning staff members are eligible to participate in the Employee Retention Program. Mr. Jones reported some individuals will see the decommissioning as a legacy career project and this is attractive from a recruitment perspective. Mr. Jones remarked the DCPD Decommissioning organization will change and evolve over time from a regulatory, finance and procurement organization to a compliance and execution organization.

Dr. Budnitz observed that all the guiding principles displayed by Mr. Jones were common to every facility that has undergone decommissioning with the exception of the principle that the facility is to be decommissioned in the shortest amount of time practicable and Dr. Budnitz observed this is a principle upon which the public should focus to understand the

risk, cost, and staffing implications as this principle places a constraint, although a positive constraint in Dr. Budnitz' view, on many of the detailed decisions that are going to need to be made. In response to Dr. Lam's observation that at some point the plant could proceed into SAFSTOR and decommissioning funding would continue to grow, Mr. Jones reported the 2018 NDCTP is focused on the strategy of proceeding immediately into active decommissioning as the annual carrying cost of \$85 million is a significant cost. Dr. Budnitz remarked that any decision to proceed from active decommissioning to SAFSTOR could only be made at the highest level of PG&E's Board of Directors. Dr. Budnitz observed that the DCISC's Restated Charter assigns it a responsibility to monitor and report on safety and in proceeding to decommission in the shortest practicable time there may be inadvertent compromises to safety and the DCISC will remain vigilant in this regard to make sure this does not occur

In response to Consultant McWhorter's inquiry on acceleration of the removal of spent fuel from the spent fuel pools over a seven-year period, Mr. Jones reported the graphics he displayed showing that level of the acceleration was the direction provided by the CPUC in its 2015 NDCTP. He reported the current license technical specifications for DCPD require closer to ten years. Mr. Jones remarked that some facilities have achieved accelerated movement of spent fuel in as short as three years but to change the timeline dictated in DCPD's current technical specifications would require a license amendment. Mr. Jones reported the DCPD spent fuel casks are not the same as those used at SONGS and have a different heat capacity. He stated that without the required license amendment from the NRC the timeline for the movement of spent fuel will not change. **He 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.** In response to Consultant McWhorter's query, Mr. Jones stated that seven years does not represent the best possible number but rather the timeline now being established by SONGS which was the benchmark set by the CPUC for DCPD's evaluation.

Dr. Gene Nelson, representing CGNP, was recognized. Dr. Nelson stated CGNP participated as an adverse intervenor in the CPUC proceedings concerning retirement of DCPD and opposed the decision to shut down the plant. He previously provided to the Committee the legal filing CGNP made seeking legal redress against the CPUC for granting permission to retire DCPD which he stated includes a challenge based upon any change in intensity of use in the coastal zone triggering certain requirements which were not met by the CPUC's decision, thereby making that decision procedurally deficient. He remarked that the NRC published a notice in the Federal Register on April 23, 2018 that it has granted PG&E's request to withdraw its license renewal application conditioned on the CPUC approval of the retirement of the plant and if the CPUC's action is overturned by the courts that would mean PG&E's withdrawal of its application to renew the licenses for DCPD would be vacated.

Dr. Budnitz thanked Mr. Jones for a very helpful presentation.

B. Informational Presentation Requested by the Committee (Cont'd.)

The Chair welcomed Dr. David G. Victor, Ph.D., Chairman of the Community Engagement Panel (SONGS CEP) for the San Onofre Nuclear Generating Station (SONGS) and

remarked that while the Diablo Canyon Decommissioning Engagement Panel (DC DEP) has just begun its work, the SONGS CEP has been in existence for a long while and the experience of the SONGS CEP has important relevance for the DC DEP although some of the issues are different. Dr. Budnitz reported the DCISC invited Dr. Victor to share his experience and insight with the DCISC, the DC DEP members present in the audience today and with the public.

San Onofre Nuclear Generating Station Decommissioning Experience; Dr. David Victor, University of California, San Diego, Chair of the San Onofre Community Engagement Panel.

Dr. Victor stated that while DCPD and SONGS are on different time schedules with reference to decommissioning, the plant operators are communicating with each other as are the activist communities and he was pleased to be here this afternoon to share observations about the SONGS CEP experience. Dr. Victor stated that in these remarks he was offering his personal views and observations and was not speaking on behalf of the SONGS CEP. Dr. Victor observed that SONGS is sited on land owned by the U.S. Navy which is a very different situation than at DCPD as far as issues relating to site restoration. He remarked SONGS is located in the midst of a densely populated and very high income area and there is a huge amount of political attention and community engagement focused on what is taking place with that plant, both when SONGS was operational and in its decommissioning. He remarked that the same level of intensity may or may not be present concerning decommissioning DCPD.

Dr. Victor reported the SONGS CEP was formed in 2014 and consists of 18 all-volunteer members who are elected or appointed public officials, represent non-governmental organizations, business, environmental and the Native American communities. The members of SONGS CEP were selected by the Southern California Edison Company (Edison), the operator of SONGS, in consultation with a number of other stakeholders. Dr. Victor stated his acceptance of the Chair has proven to be an interesting but not an easy experience. SONGS CEP holds quarterly meetings and conducts workshops on technical topics as they arise. Typically each quarterly meeting includes one or two presentations by subject matter experts. He reported that the SONGS CEP is not a decision-making body and has no official governmental oversight function and he remarked that there are many layers of oversight responsibilities and that another layer of oversight would be less useful than a mechanism to provide a conduit between Edison as the operator of SONGS and the communities that are affected by the decommissioning process. Dr. Victor emphasized that this needs to be a two-way conduit. He remarked that until the SONGS CEP was created many people did not have a clear understanding of what the timetable for decommissioning would be and he urged PG&E to make available a simple version of the timing for the phases of the decommissioning project.

Dr. Victor reported he also sits on the advisory board for INPO and for the Electric Power Research Institute (EPRI) and he is a political scientist by training. He remarked that many persons with technical training and expertise tend to view members of the public as uninformed but he stated that view is a recipe for failure as it prevents the functioning of the two-way conduit he described as essential in context of nuclear power issues. He stated there is a tendency amongst nuclear professionals to believe they understand the risk and the public just needs to learn more which leads to a failure to understand the different ways that many members of the public understand and appreciate the risks, and in the experience of the SONGS CEP both Dr. Victor and Edison have come to appreciate the value of a functional two-way conduit in

assisting them to understand the concerns of the various communities.

In response to Dr. Peterson's comment that the survey conducted by PG&E on the concerns people have about the closure of DCPD produced no responses based on security concerns and only five responses identifying safety as a concern, Dr. Victor remarked that this may be due and represent one of the major values of the SONGS CEP and the manner in which it is structured, in that it is not a formal decision making body which allows it wide latitude in its investigations and most of the panel consists of elected officials and local agency representatives who are regularly required to weigh costs and benefits of differing interests in the local community. Dr. Peterson remarked, and Dr. Victor agreed, the fact that elected officials are playing a role in the process is comforting as the purpose of a represented democracy is for people to collectively identify those individuals who will represent their interest. Dr. Victor stated the activities of the SONGS CEP have on occasion become the focus of debate in local cities concerning membership on the panel which he sees as evidence the panel is delivering a value in the sense it is revealing information about what is happening at the plant and assisting the plant's operator to make decisions.

In response to Dr. Budnitz observation that 18 persons on a panel is a large number, Dr. Victor agreed and remarked that some members devote more time than others to the panel but a small number of members would necessitate removing some voices from the community. In response to Dr. Lam's query, Dr. Victor confirmed that the SONGS CEP is a purely advisory body and does not make decisions on behalf of the panel as a whole but rather the leadership on the panel makes recommendations or observations. In response to Dr. Lam's question, Dr. Victor stated his role as Chair of the SONGS CEP is to identify topics for its meetings and to identify areas where public concern exists and to meet and consult with members of the public. He stated, in response to Dr. Budnitz inquiry, that the panel has some industry experts as members, including a former president of the American Nuclear Society and has the ability to reach out to the NRC and he remarked the NRC staff have been extremely helpful. To date, Dr. Victor reported the SONGS CEP has not hired technical consultants as most of its review is strategic in nature. He remarked the SONGS CEP is in the process of identifying beyond design basis events that could affect an ISFSI-only site, such as might result from a terrorist attack, and is collecting scientific information and identifying potential remediation for such events. Previously, the panel organized a series of workshops when Edison was in the process of making a decision concerning spent fuel canisters one of which featured Dr. Peterson as a speaker. In this effort Dr. Victor authored a White Paper regarding the options and the strategic import of that decision.

Dr. Victor stated the SONGS CEP has written to and received visits from representatives of the CEC on the issue of consolidated storage of nuclear waste, including spent fuel, proposed to be located in New Mexico and Texas and he stated everyone is a victim of the federal government's failure to deliver on its promise of a permanent repository. He remarked that by accelerating changes in federal law, the date by which fuel can be removed from nuclear facilities can be advanced and this is an issue shared by SONGS and DCPD. Dr. Victor observed that if nuclear operators can help establish a model for how community engagement is done through the various decommissioning panels, it may help build the support needed for interim storage which he described as a massive public good for California and the nation.

Dr. Budnitz observed, and Dr. Victor confirmed, that SONGS never had a body similar to the DCISC and Dr. Budnitz stated the DCISC has been in communication with the DC DEP and has offered to provide assistance with questions within the DCISC's purview. Dr. Victor commented that in its review of beyond design basis events, the SONGS CEP role will be to open a two-way conduit and keep it open and focused on technically grounded issues in context of what is possible and what is not possible and in that effort the SONGS CEP does need to have the capacity to access some level of technical expertise. He stated this expertise comes either from the panel members or from Edison. Dr. Victor reported each meeting of the SONGS CEP includes a public comment period at the end of the meeting and the panel is now in the process of determining how it might be more responsive to the public without the meetings becoming too acrimonious. He reported 18 months ago the SONGS CEP devoted two public meetings to seismic risk and subsequently organized a series of briefings at cities around the area. In this effort, Dr. Victor reported, some members of the public attempted to mischaracterize the seismic risk and meetings were held with experts to review how seismic risk analysis is performed.

Dr. Victor displayed photos of SONGS as it is today and how the site would appear following removal of the plant facilities. He remarked that going to SAFSTOR was never an option for Edison. He reported he was surprised by the extent to which the local communities were unaware of the fact that spent fuel will remain onsite after the other plant facilities are removed. He remarked this concern on behalf of the public is not one that is amenable to risk-benefit calculation because technically trained experts categorize the risk at that point from the ISFSI to be essentially zero but the public at large does not necessarily share this assessment. Dr. Victor stated that one meeting of the SONGS CEP each year has been devoted to the issue of management and stewardship of the ISFSI and its defense-in-depth aging management programs. Dr. Peterson stated that in his experience these concerns have largely disappeared from the public consciousness at other facilities. Dr. Victor replied this may be true at facilities such as Maine Yankee, Zion and Yankee Rowe nuclear power stations but he observed these facilities are located outside California in mainly rural areas and he stated that based on the concern on these issues expressed by residents about the issue of spent fuel remaining onsite at SONGS he would expect DCPD to see far more attention and concern about the same issue in decommissioning than otherwise might be expected. Dr. Victor stated the SONGS CEP has heard from members of the public with safety concerns and he remarked the default position concerning the nuclear industry is that things will be done safely, however, given the manner in which SONGS was shut down after the failure of its steam generators there was a certain loss of trust amongst members of the public and this has engendered safety concerns including around seismic risk and ISFSI design. Dr. Victor observed that the public's self-reported concerns will evolve as the decommissioning process continues and he observed the issues of ISFSI site stewardship and site operations at decommissioned nuclear power plants is now very different than when Rancho Seco Nuclear Generating Station was decommissioned by the Sacramento Municipal Utility District (in 1989).

Dr. Budnitz subsequently commented that DCPD and SONGS are both operated by profit-making investor-owned utilities while Rancho Seco was operated by a municipal utility district which does not make a profit and that may create a different perception because the municipal utility district was not accused by the public of doing something adverse to the public interest because of profit. Dr. Victor stated Edison in its briefings to the SONGS CEP has been forthcoming in explaining that the funds used for decommissioning are public funds and

therefore its decisions concerning decommissioning activities are not driven by profit-based motives.

Dr. Victor observed the concerns about the preparedness of first responders has been a concern based on the fact that from a risk point of view the footprint of the site in decommissioning does not shrink as quickly as the risk and this has been an important part of the two-way conduit communication pathway he described and may or may not be addressed by the CPUC in its decisions but is something that no one seems to have thought much about in detail when SONGS decommissioned. He commented SONGS CEP has representatives from organized labor on the panel and jobs are a significant concern but unlike DCPD most of SONGS' workforce did not live in the local community and the representation of multiple communities is an important consideration.

Dr. Victor stated that SONGS CEP is reviewing what defense in depth concepts look like in context of an ISFSI-only site as far as monitoring and inspecting the spent fuel storage canisters, assessing the potential for stress corrosion cracking and dealing with potential worst-case scenarios. He remarked this is an area where the nuclear industry including the Nuclear Energy Institute (NEI) has not really been prepared to talk with the public. Dr. Victor commented the nuclear industry needs to be prepared to talk with the public in English and not couched in technical or mathematical terms. He remarked that concerning aging management of spent fuel canisters and the ISFSI there is a high comfort level within the industry which the public does not share. He observed that many of the technologies needed, for instance, to do robotic inspections of the canisters do not exist now but persons inside the industry are confident they can be developed but for persons outside the nuclear industry, their impression is simply that the technologies and tools do not exist. He commented that SONGS CEP includes discussion of timetables for development of technical capacities in context of its reviews of these types of issues. Dr. Peterson commented he was disappointed that in licensing the spent fuel canisters, the consequences of having a tight aperture crack was not analyzed and the canisters were licensed to be perfect rather than allowing for imperfections and he agreed with Dr. Victor's observations on the effect on the level of trust engendered in the public by such actions.

Dr. Victor reviewed an incident at SONGS with a shim design for the Holtec firm's spent fuel canisters which created concern amongst members of the public which, based on the technical assessment of the canisters continuing ability to reject heat, was not entirely shared by the technical community. He remarked the SONGS CEP and Edison both need to do a better job of articulating and explaining the various layers of defense and why a multilayered defense process makes the canister system more robust. Dr. Peterson observed that a fundamental tenet of the operation of complex technologies is that nothing is perfect and therefore one needs to be in a constant mode of identifying problems and the absolute worst thing that can happen to destroy an effective safety culture is to start treating minor issues as major issues because this will lead to a culture of concealment which is self-reinforcing. He remarked problems need to be identified at a low level of significance, fixed and then the technology moves forward with a culture of reporting those types of problems. Dr. Victor agreed but remarked the public perception is driven by what shows up on the news but he stated at SONGS there is increasing levels of transparency and Dr. Peterson agreed this was a good solution. Dr. Victor stated he has had differences with but has been impressed by Edison's willingness to engage in the effort to foster transparency.

Dr. Victor further described the incident he referred to previously which resulted when a canister which was being lowered into the Holtec firm's system became jammed on a ring unbeknownst to the crane operator, a subcontractor to Holtec, who continued to lower the rigging. This incident was reported to the NRC as a worker safety issue not as a nuclear safety matter but became a subject of concern when a subcontractor gave a presentation which portrayed the incident as being a nuclear safety-related near-miss. Edison has now stopped its spent fuel offloading campaign and there is more public focus on the campaigns. The NRC is finishing its report on the incident. Dr. Victor stated this was an example where the reaction from Edison and from the SONGS CEP has been to make everything done in response as transparent as possible including conducting town hall meetings with members of the public. Dr. Victor stated the SONGS CEP has included Edison's contractors and the subcontractors as part of its public presentations to help them understand how important it is to engage with the public and he encouraged the DC DEP to do the same at the proper time.

Dr. Victor stated there is no answer to the question of who do you trust because that answer depends upon your perspective. He stated he initially understood that levels of trust in Edison would be low due to the steam generator situation but he was astonished at the low level of trust in the NRC and he commented this should be an issue of concern for the NRC. He remarked the NRC's reaction may be to talk more but not to listen as much but he acknowledged NRC oversight of decommissioning is more complex than he initially anticipated. Dr. Peterson remarked the NRC has the burden of regulation and must operate within a very restricted framework as to how it communicates and in context of proprietary and security-related information. Dr. Peterson remarked that this demonstrates the need for and utility of independent advisory panels such as the DCISC which report to public officials and are not burdened with responsibility or capability for regulatory decision making. Dr. Budnitz remarked the DCISC, like the SONGS CEP, is empowered to operate without the burden of authority and this allows it to do certain things but that attribute is not enough to engender trust among all the different sectors of the public who hold differing views. Dr. Victor remarked the SONGS CEP strategy has been to spend a great amount of time listening and trying to understand the different perspectives but there will be a segment of the public that will never trust anything the panel or any institution does and he has become resigned to this fact. He stated he believes the SONGS CEP's job is to listen often, to understand, foster transparency and to ensure the discussion is technically grounded but understandable in English but from an outside perspective due to the nature of politics, this can seem chaotic. When the pros and cons of how something may affect the community are provided, it is up to the community to identify the extreme voices and those that are trying to make technically informed, responsible decisions. Dr. Budnitz remarked that having elected officials and labor representatives serving on the SONGS CEP assists in opening a dialogue with those organizations and he remarked the DC DEP does not have that type of representation. Dr. Victor reported his view is there is a fraction of the public that is very focused on SONGS and some do not believe they are represented on or by the SONGS CEP.

In closing his remarks, Dr. Victor emphasized the practice of the SONGS CEP in engaging experts and to focus upon keeping the discussion technically grounded and understandable to the layperson and he commented that the SONGS CEP engaged in activities early on to demonstrate its relevance.

Dr. Gene Nelson, representing CGNP, was recognized. Dr. Nelson stated CGNP was founded in 2013 and one of its principal missions is to serve as an educational resource to assist the public in understanding technical issue. He remarked CGNP initially worked with PG&E on the common goal to keep DCPD operating but subsequently PG&E decided to go in a different direction. He stated it is important for the public to have an appreciation of the real risks of nuclear power operations and to recognize the implausible and improbable scenarios which he stated clearly do bring donations to groups opposed to nuclear power. Dr. Nelson stated that the nuclear industry in his view has done a terrible job of education and he stated he applauds the DCISC for its role in providing a forum for education.

Ms. Sherry Lewis stated she serves as a representative for MFP but was speaking on her own behalf. Ms. Lewis remarked it is very important to talk and to listen. She remarked that the perception there is a lack of concern in the local area about security and safety is likely due to the activities of Mothers for Peace and the Alliance for Nuclear Responsibility which emphasize safety and serve as watchdogs. Ms. Lewis commented that it is her belief that much of the public remains in denial about the danger of radiation and she observed that nuclear waste remains a very real problem to matter how much effort is put into keeping it safe.

Mr. David Weisman, representing A4NR, was recognized. Mr. Weisman thanked Dr. Victor for his presentation and the DCISC for having made the arrangements for Dr. Victor's appearance. He remarked the DCISC has again "gone the extra mile" even if it did take a year from the time Mr. Weisman first suggested an invitation be issued to Dr. Victor. In response to Ms. Lewis' comments, Mr. Weisman stated that while A4NR fancies itself as a safety watchdog it is also an advocate for ratepayers and believes that safety must be translated into dollars and cents. Mr. Weisman observed that Edison's delay in the SONGS spent fuel loading campaign will translate to a cost, especially if new procedures and new equipment are required and the decommissioning period is extended which costs will eventually filter back to Edison's ratepayers or to federal taxpayers. Mr. Weisman remarked that an August 8, 2018 exit meeting between Edison and the NRC regarding an inspection period from June 2017-June 2018 found the spent fuel loading ISFSI procedures to have only one minor non-cited violation but now there are plans to redesign and provide video surveillance, etc. He stated this is an example of why there is a lack of trust among the public, particularly at SONGS, in the NRC and that may be an issue as well for DCPD. He remarked on the history of DCPD including the original seismic assessment and the emergence of the Hosgri seismic fault as examples of issues which engender a distrust of the regulator. Mr. Weisman stated Dr. Victor's comments about the need for transparency were well-taken points.

Mr. Chuck Anders, a resident of Arroyo Grande, California, was recognized. Mr. Anders stated he serves as the independent facilitator for the DC DEP. He reported that of the almost 500 individual comments from members of the public concerning DCPD decommissioning issues, the majority deal with land use and plant facilities. However, he remarked the DC DEP made it very clear that in no way did the panel intend to minimize the importance of safety concerning ongoing operations or fuel storage. Mr. Anders inquired to what extent might the fact of the DCISC having provided an independent safety-related oversight function have an impact on the comments the DC DEP received from the public. He stated the lack of a body for SONGS similar to the DCISC may be impacting the comments being received by the SONGS CEP. Dr. Budnitz responded that there is no committee similar to the DCISC anywhere else in

the U.S. and it is very hard to judge the effect the DCISC may at this point in time be having on the public's perception of the issues as DCPD moves toward decommissioning. Dr. Lam remarked there may be linkage between the DCISC raising public awareness of the importance of reactor safety and the relative lack of questioning received by the DC DEP. Dr. Peterson observed that independent advisory panels provide a systematic way for the public to get questions answered by the operator of the facility and this ability to get questions answered and concerns addressed has likely made a significant difference. Consultant Wardell remarked that he sees the Committee's role and his role as a consultant as including the responsibility to take the technical aspects of the subjects of DCISC review and make reports to the public in a way they can understand and have the ability to ask questions. Consultant McWhorter commented with reference to the earthquake which occurred in the vicinity of the North Anna Nuclear Generating Station in Virginia there was an extreme amount of public interest following that event where Mr. McWhorter learned the importance of public forums which he stated add value to an open and transparent process wherein questions are raised and answered. Dr. Victor stated his belief that it is the non statutory nature of the SONGS CEP that provides it a huge asset and gives flexibility, provided the operator has confidence in the panel and allows the panel to operate. He commented that no one can really answer Mr. Anders question. Although the NRC serves as an independent regulator it does not appear to engender the necessary trust and, the experience at SONGS due to the failure of its steam generators introduced a different dynamic which made the public not trust institutions. He stated that creating venues with some common fact basis where the public can repeatedly raise questions may be the best one can do. Dr. Victor stated he agreed with a comment by Dr. Lam that the failure of SONGS steam generators was not entirely the fault of the NRC and Dr. Victor stated that the more interaction one has with those involved with that decision and the more one learns about how an organization functions, the more it is understandable how such a thing could happen.

Judge Alex Karlin was recognized. Judge Karlin stated he resides in San Luis Obispo, California, and serves as a member of the DC DEP. He stated he was not speaking on behalf of the panel but as an individual. Judge Karlin remarked the DC DEP does not have a chairman nor does it have structure of any kind. It is a body of eleven individuals who are trying to assist the decommissioning process. Judge Karlin stated he believes the SONGS CEP can provide a model for the DC DEP and for the local community. He remarked that the comments which were identified as related to safety were not categorized and he stated DCPD is probably the most controversial nuclear power plant in the U.S. and issues about the plant have been litigated many times including with the U.S. Supreme Court. He remarked this is the reason for the existence of the DCISC and he commented there is no reason to believe the local community is complacent concerning safety issues at DCPD. Judge Karlin stated there is a significant difference between the composition and qualifications of the SONGS CEP and the DC DEP concerning familiarity with the nuclear industry and with respect to technical knowledge. He commented having elected officials on the SONGS CEP provide it a vital resource which the DC DEP needs but currently lacks, as elected officials are immersed in local politics, work in institutions that have resources, and possess insights about what is feasible so as to help guide the focus of the SONGS CEP. Judge Karlin stated that while he appreciates the DCISC's offer to the DC DEP to call upon the Independent Safety Committee for technical assistance, it is his belief the DC DEP should also have the independent ability to judge technical issues and not be reliant on the DCISC. Judge Karlin observed that the restated Charter for the DCISC provides for its role in assessing safety of operations but that in accordance with 10 CFR 50.81 when the plant is shut

down and enters decommissioning operations will have ceased in accordance with NRC regulations and the DCISC would be outside its remit at that time.

Dr. Justin Cochran was recognized. Dr. Cochran stated that in his role with the CEC to review all California's nuclear facilities and radiological processes he has found the DCISC to be of significant value in that it is an expert panel that can act as an independent check and reference for information received from other entities including nuclear operators, the nuclear industry, the NRC and other federal agencies. Dr. Cochran stated that in his conversations with his peers from other states they have expressed appreciation for the DCISC as being a resource they lack.

The Chair expressed the thanks of the Committee to Dr. David Victor for his attendance at this public meeting and stated Dr. Victor's presentation was very valuable for the DCISC, for the public and for the DC DEP. Dr. Peterson expressed his admiration also for the many impressive contributions Dr. Victor has made outside his service on the SONGS CEP to the field of climate change and Dr. Peterson remarked that trust and confidence are two issues which overlap with Dr. Victor role in addressing climate change and with his service on the SONGS CEP.

B. Informational Presentations Requested by the Committee of PG&E Representatives (Cont'd.)

Dr. Budnitz requested Mr. Harbor to introduce the next presentation. Mr. Harbor stated DCPD Operations Director Mr. Adam Peck was present to make that presentation and he reported Mr. Beck holds a Bachelor of Science degree in electrical engineering, has held a senior reactor operator license and held leadership roles in the Engineering and Operations organizations.

Presentation on the State of the Plant including Key Events, Highlights and Station Activities, and Employee Retention/Staffing Trends since the DCISC's June 2018 Public Meeting.

Mr. Peck reported both units are presently operating at 100% power with a probabilistic risk assessment (PRA) of Green. All NRC Performance Indicators are in Green status. Since the last public meeting of the Committee in June 2018 Unit-1 has remained at 100% power with no nuclear safety challenges. Unit-2 reduced power to 50% in mid-September 2018 for condenser cleaning to remove organic materials which build up on the condenser tube sheets. This maintenance activity was completed and Unit-2 returned to full power. Mr. Peck reported maintenance was performed on Emergency Diesel Generator 1-1 during a major maintenance outage window of 7-days duration.

Mr. Peck displayed graphs showing the daily load profiles for both units for the last four months and for the last twelve months. Mr. Peck reported the capacity factor for Unit-2 is 84.52% compared to 92.31% for Unit-1 due to refueling outage 2R20 which had a duration of 37 days.

Mr. Peck reported upcoming station activities include:

NRC Emergency Planning Inspection - week of October 22, 2018;
Quality Verification Audit - completed in the week of October 22, 2018;
NRC Triennial Fire Protection Audit - completes week of October 29, 2018; and
NRC Security Access Control Inspection - week of November 5, 2018.

Mr. Peck reported staffing is essential to the success of DCPD and to maintaining excellent performance through the remaining lifetime of the plant. He reported workforce attrition to date in 2018 is slightly less than the historical average which he attributed to the effectiveness of the Employee Retention Program, with a subscription rate of 94% of the workforce. He reported tranche two retention agreements will be made available in July 2019 and this will provide information to inform additional changes for which action plans or contingencies would need to be developed. He reported, under the sponsorship of the Chief Nuclear Officer, a People Committee with Mr. Harbor as its Chair with the Senior Director of Nuclear Engineering Services, the Station Director and the Organizational Effectiveness and Learning Services Director and Human Resources business partners serving as its permanent members, has been established to review departmental functional assessments including workforce planning, knowledge transfer and succession planning to ensure staffing expectations are met and support is provided from the station and from PG&E corporate to maintain high levels of plant performance.

In response to Dr. Lam's inquiry, Mr. Peck reported 2019 will be a two-outage year for DCPD and 2019 will also have World Association of Nuclear Operators (WANO) and NRC's inspections. In response to Dr. Lam's further inquiry, Mr. Peck stated the decommissioning effort has not distracted from his organization's current focus nor has there been a diversion of resources due to the decommissioning efforts underway and Mr. Peck stated that personnel assigned to decommissioning continue to participate and support the plant during outages and emergency exercises. There are now approximately 16 persons assigned to the decommissioning organization which he described as a small fraction of the 1,300 persons presently employed by DCPD.

In response to Dr. Budnitz' inquiry concerning a curtailment of power due to an issue with the main feedwater pump, Mr. Peck stated an annunciator alarm was received in the Control Room about 6:00 p.m. that the main feedwater pump had tripped, however, the pump had not tripped and should not have tripped. The alarm indication was evaluated and Mr. Peck stated a conservative decision was taken at an operational decision-making meeting to ramp the unit to assist trouble shooting when it was found the incident involved a spurious indication. As that spurious indication was generated by a switch with the ability to trip the main feed pump it was determined that trouble shooting and maintenance should not be performed on the switch without curtailing the operation of the unit involved but the activity needed to be performed or the main feed water pump could possibly be tripped at any time until the problem was identified and fixed. It was determined the cause was not the switch but rather within the conduit between the switch and the annunciator and there was no risk or challenge to the plant. Trouble shooting was

completed and the plant returned to full power within 24 hours. In response to Dr. Budnitz' query Mr. Peck confirmed that the same issue was not present on the other unit and he reported that upon review DCPD did not locate any operating experience reports specific to this issue from other facilities although he remarked that wires rubbing within conduits and causing a ground is not an uncommon occurrence.

XIV ADJOURN MORNING MEETING

The Chair adjourned the morning meeting of the Committee at 11:45 A.M.

XV RECONVENE FOR AFTERNOON MEETING

DCISC Chair Dr. Robert J. Budnitz called the afternoon public meeting of the DCISC to order at 1:00 p.m. and Dr. Budnitz recognized his colleague Dr. Peter Lam present in the meeting room and stated DCISC Members Dr. Peterson was present and would return to the meeting in a few minutes.

XVI COMMITTEE MEMBER COMMENTS

There were no comments by any Member at this time.

XVII PUBLIC COMMENTS AND COMMUNICATIONS

Ms. Sherry Lewis, a representative of MFP, was recognized. In response to Ms. Lewis' question seeking an update on events following the accident to the Fukushima Dai-Ichi Nuclear Power Plant in Japan (Fukushima), Dr. Lam reported the need for the government to provide a stipend to individuals displaced by the accident has cost the government approximately \$200,000,000 each month and mitigation measures have resulted in a shortage of storage tanks which led to the re filtration of water which may possibly now be discharged into the Pacific Ocean although Dr. Budnitz remarked that no decision on the discharge of this water has been made as yet. Ms. Lewis stated she is concerned about the health effects and stated her belief that doctors are not permitted to equate health problems such as thyroid or other cancers to the effects of the Fukushima disaster. Dr. Budnitz stated that following the accident at Fukushima, the Japanese utilities formed an organization akin to INPO which is known as the Japan Nuclear Safety Institute (JNSI) and that he has undertaken some consulting work for the JNSI in the area of seismic safety. Ms. Lewis commented, in light of Dr. Victor's presentation earlier in the public meeting and his emphasis on the importance of communication, it appears that the communication is lacking between the government and the Japanese public. Dr. Lam observed the accident at Fukushima illustrates the paramount importance of reactor safety and he categorized nuclear operations as a technology that is complicated, complex and unforgiving.

Dr. Gene Nelson, representing CGNP, was recognized. Dr. Nelson stated a recent broadcast on Australia's version of the 60 Minutes television program included video footage from within Fukushima Unit-3, which was the most heavily damaged unit, and Dr. Nelson

commented this film footage showed a remarkable amount of remediation has been done and he stated it is unfortunate that fact does not get much attention from the news media. He observed that safety systems worked and defense in depth was validated because nothing has been detected above the normal statistical variation and the Tokyo Electric Power Company (TEPCO), the operator of Fukushima, had made a significant error, for financial reasons, when TEPCO located the plant, not as many experts advised, that is, higher in elevation than its actual location. Dr. Nelson observed the nuclear industry has paid a great price for TEPCO's mistake. Dr. Lam remarked that Japanese regulators licensed the plant for a 250-year flood assessment and prior to the accident the plant had an impeccable safety record and the accident was the result of a tsunami calculated to have a recurrence rate of once in 1,000 years but he agreed with Dr. Nelson that had certain safety equipment been available the accident might not have occurred as it did. Dr. Nelson observed that Fukushima's location cannot be compared to that of DCPP as a large subduction zone does not exist close offshore from DCPP. Dr. Nelson observed the Onagawa Nuclear Power Plant in Japan, which he stated had a stronger safety culture than at Fukushima, experienced greater ground acceleration and a larger tsunami but survived and actually served to shelter persons displaced by the earthquake and tsunami.

Dr. Budnitz thanked Ms. Lewis and Dr. Nelson for their comments.

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

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

Dr. Budnitz requested Mr. Harbor to continue with the informational presentations for this public meeting. Mr. Harbor introduced Mr. Hossein Hamzehee. Mr. Harbor reported Mr. Hamzehee has more than thirty years of nuclear power experience including extensive experience as a Branch Chief with the NRC

Update on the Status of NRC Performance Indicators, Licensee Event Reports, NRC Notices of Violation, and Issues Raised by NRC Resident Inspectors.

Mr. Hamzehee stated DCPP is rigorously inspected by the NRC and is committed to the highest standard of safety and constantly re-evaluates its operations and emergency planning to protect public health and safety. He reported he would provide an overview of DCPP performance based on NRC's Performance Indicators since the last meeting of the DCISC in June 2018. He remarked his presentation would cover approximately four months of NRC inspections consisting of approximately 1,800 hours of inspection time. During this period NRC staff identified four violations all with very low safety significance.

During the period June - September 2018 DCPP met all Green performance expectations for all NRC performance indicators. Mr. Hamzehee reviewed and briefly discussed some of the 16 performance indicators reviewed by the NRC, and concerning which data is collected daily, as currently being within Green 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

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 indicate very low safety significance, with no impact to public health and safety.

Mr. Hamzehee reported there were no licensee event reports issued by PG&E for the period June - September 2018 and there were four non cited violations (NCV) as follows:

- Non Cited Violation (Green) - for failure to ensure materials intended for installation in a diesel generator air inlet boot seal confirmed to procurement requirements. All defective diesel generator boot seals that were in operation were replaced.
- Non Cited Violation (Green) - self-identified by DCPD for failure to ensure that relief valve o-rings were appropriately classified for use in a safety-related context. The o-rings were commercial rather than safety-related grade and an operability determination was performed which concluded all o-rings were functional. All commercial grade o-rings will be replaced with safety grade o-rings. Mr. Hamzehee observed the difference in grade does not mean the o-rings were not functional.
- Non Cited Violation (Green) - for failure to identify Diesel Generator Room fire suppression control panel indicator light off-normal condition. A trouble light on Emergency Diesel Generator 1-1 was illuminated which indicated the automatic operation of the fire suppression system for that specific panel could have been prevented. Mr. Hamzehee stated procedures have been revised to require checking the lights.
- Non Cited Violation (Green) - identified during the NRC Problem Identification and

Resolution Inspection in April 2018 for failure to correctly install flexible conduit to the power operated relief valve solenoid per the associated equipment qualification requirements. In the presence of steam or moisture the flexible conduit would allow moisture to vent out of the system and buildup could potentially damage the valve. An operability determination was performed which involved entering Containment to inspect the valves and the determination concluded all the valves were operational with no steam accumulation.

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 June 2018 as follows:

- 2018 Problem Identification and Resolution Inspection Report (2017-008, 06/08/2018).
- 2018 2nd Quarter 2018 Integrated Inspection Report (2018-002, 07/24/2018).
- 2018 Design Basis Assurance - Equipment Qualification Inspection Report (2018-010, 08/22/2018).
- 2018 Security Equipment and Trending Inspection Report (2018-404, 09/28/2018).

In response to Consultant McWhorter's inquiry concerning the NRC having opened an unresolved item on mission times used in operability violations, Mr. Hamzehee stated DCP's Final Safety Analysis Report (FSAR) includes a reference on how long it can take to recover offsite power availability so as to determine how long the emergency diesel generators (EDGs) must be available and operable. When the Callaway Nuclear Generating Station in Missouri experienced a problem, the plant was unable to establish with the NRC a basis for using seven days as its EDG mission time and when this issue was reviewed at DCP by the Senior Resident NRC Inspector, the inspector noticed that DCP was using 24 hours which was not consistent with the FSAR, as DCP's FSAR does not include a reference to "mission time." Mr. Hamzehee stated that 24 hours was selected based upon a PRA study as a 24-hour period is well beyond what is needed for safe shut down and to maintain the plant in safe shutdown condition. Because the NRC Resident established that the FSAR is the controlling document an unresolved issue was opened on this matter and until the issue is resolved the NRC Resident directed that seven days be used instead of 24 hours as a bridging strategy. Mr. Hamzehee stated this issue was important because in order to do an operability assessment when equipment fails you have to assume some mission time for the equipment.

In response to Dr. Peterson question as to credit given for the FLEX generators now onsite Mr. Hamzehee stated the NRC is reviewing the matter and will issue guidelines. Dr. Peterson stated that how credit is given for reality in licensing space can be challenging but one should be more disappointed with licensing space than with reality when the plant is challenged. Mr. Hamzehee stated credit for the presence of FLEX equipment in the plant's PRA is also an issue as the NRC regulations require ensuring that if licensees are going to take credit for FLEX equipment there is some means of assuring its reliability and availability and regulatory guidelines will be issued as to how FLEX is to be included in the Maintenance Rule if credit is to be taken in the PRA. Dr. Budnitz reported the American Nuclear Society/American Society of Mechanical Engineers (ANS/ASME) Committee on which Dr. Budnitz serves as the Co-Chair is

contemplating standards for how to do the analysis of FLEX in the PRA and the committee hopes to issue those standards in the near future. Dr. Budnitz stated it is important for the public to know if an accident were to occur the FLEX equipment is available and training has been conducted. Mr. Hamzehee confirmed that the NRC has inspected DCPD and has worked with its Operations staff and the NRC was pleased with the results.

Dr. Lam observed there was a minor NCV that was identified and corrected by DCPD staff but he stated there must be numerous other pieces of equipment that should receive the same level of focus and attention and he inquired how Mr. Hamzehee's staff can ensure that equipment is monitored adequately. Mr. Hamzehee replied there are procedures and each day Operations, Maintenance, Engineering personnel and the system engineers walk-down the plant to ensure all equipment is operable and available and anything found is entered into the Corrective Action Program. Mr. Hamzehee stated the plant uses a risk-informed approach to identify risk-significant components, equipment, and systems and these key systems are readily familiar to all licensed operators.

Dr. Gene Nelson, a representative of CGNP was recognized and remarked that he continues to be impressed by the job PG&E is doing at DCPD.

Ms. Sherry Lewis, a representative of MFP, was recognized. Ms. Lewis stated she was confused by references to "Green" as a health and a performance indicator. Dr. Budnitz confirmed that reference to "Green" in those contexts may have different meanings. Ms. Lewis stated her assumption that if the EDG generator light issue were a safety-significant issue there would be defense in depth measures available. Dr. Budnitz confirmed Ms. Lewis observation and stated that this is why it was judged to be of lower safety significance because it was not the only indicator. Mr. Hamzehee stated that regardless of the indication as green, white, yellow or red, the NRC has requirements and regulations and when those regulations are not met a violation or a finding is issued. When the significance of the violation is determined then the color is assigned. Yellow or white indications result in a more intensive inspection regime and more severe consequences.

Mr. Harbor introduced the final presentation by PG&E for this public meeting and stated that presentation would be an overview of nuclear safety culture and be made by Mr. Matt Hayes, Director of Organizational Performance and Learning Services at DCPD. Mr. Harbor reported Mr. Hayes has more than fifteen years of nuclear industry experience including in the areas of training, radiation protection and organizational effectiveness.

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

Mr. Hayes stated a key element of nuclear power plant safe operations is safety culture and he reviewed the traits of a healthy nuclear safety culture as including an environment where employees will raise concerns at a low level and the plant management team will respond and correct issues. He stated a healthy nuclear safety culture requires a collective commitment from

leaders and individuals to emphasize safety over competing goals to ensure the protection of people and the environment. Key elements of a healthy nuclear safety culture include an individual commitment to safety, personal accountability, a questioning attitude, and effective safety communication as well as management's commitment to safety leadership, safety values and actions, decision-making, and a respectful work environment.

Mr. Hayes reported a safety conscious work environment (SCWE) is another key element of a healthy nuclear safety culture represents an environment where individuals feel free and are open and willing to identify and raise issues, questions or concerns, express differing professional opinions or viewpoints dealing with nuclear or radiological safety, quality, security, environmental or regulatory compliance and to do so without fear of retaliation. Issues identified within the context of a SCWE are addressed promptly with timely feedback provided to the initiator.

Mr. Hayes stated that the Nuclear Safety Culture Monitoring Panel (NSCMP) reports to him and assesses nuclear safety culture using the recommendations of NEI publication 09-07, "Fostering a Healthy Nuclear Safety Culture," which places primary responsibility on management to provide an ongoing holistic, objective, transparent and safety-focused process. He reported the process evaluates inputs from the Corrective Action Program, performance trends, NRC inspections, industry evaluations, audits, and operating experience, independent and self-assessments, and the Employee Concerns Program. The NSCMP monitors these inputs to identify early indications of potential concern in the work environment that merit additional attention by the organization. The process is directed by station procedures. The NSCMP is comprised of experienced personnel with diverse backgrounds. Membership is limited to protect the confidentiality of personal information and its reports are provided to the site leadership team.

Mr. Hayes remarked the Employee Concerns Program (ECP) provides an alternate venue for employees to raise concerns, seek intervention and consultation or to request an independent investigation for resolution of nuclear safety and quality concerns. The ECP is comprised of three independent, qualified, team members who report directly to the Chief Nuclear Officer. Mr. Hayes reported that no concerns were raised with the ECP during 2018.

Mr. Hayes stated DCPD has undergone a number of NRC inspections that examined its nuclear safety culture with the latest concluding in October 2018. The NRC inspections, as well as recent NSCMP assessments, indicate that DCPD continues to exhibit the traits of a healthy nuclear safety culture. Mr. Hayes said that as part of a day-to-day commitment to excellence, DCPD continues to learn from and make improvements to its nuclear safety culture.

In concluding his presentation, Mr. Hayes observed that PG&E is a safer, better company when all employees are encouraged to speak up and the leadership team is committed to listening up, and to following up. He stated nothing is more important than safety and maintaining a culture where everyone feels comfortable sharing their ideas and concerns is essential to operating safely. Mr. Hayes reported that whenever DCPD employees see a safety issue or concern, they are encouraged to speak up immediately.

Dr. Budnitz remarked that a situation where a significant number of low level issues are raised during one year, which is then followed by a year in which far fewer concerns are raised has been a concern of the DCISC based on the numbers of concerns raised in 2017 as compared to 2016 and prior years. Dr. Budnitz remarked that an understanding of that trend cannot rely on data alone but requires additional information. Mr. Hayes replied the NSCMP reviews the numbers of notifications (the initiating document for entry into the Corrective Action Program) and compares the number of notifications generated with prior years. He stated the results of interviews with employees and the level of detail supplied by the notifications did not support a finding that there were issues adverse to employees raising concerns. Mr. Hayes stated that DCP is the fourth nuclear power plant with which he has been associated and the threshold level for initiating notifications at DCP is in line with the other plants with which he is familiar. Mr. Hayes observed the ECP is available to employees to raise concerns in a confidential and anonymous forum. Mr. Harbor remarked the NRC periodically conducts its Problem Identification and Resolution Inspection which is a team inspection devoting a significant amount of resources to investigation of the plant's safety culture and DCP management has the benefit of the feedback from and results of the NRC assessment. He further observed that INPO also places primary importance on and assesses safety culture during its reviews and conducts interviews and holds discussions with plant personnel at various levels.

In response to Dr. Lam's inquiry, Mr. Hayes stated members of the labor unions serve on the NSCMP and within the Organizational Performance and Learning Services organization he leads. Mr. Hayes commented that he believes the unions see great benefit in having a healthy nuclear safety culture and management and union efforts in support have proven to be a mutually beneficial partnership.

In response to Consultant McWhorter's query concerning the need to maintain a healthy nuclear safety culture during the period when the plant is proceeding to closure, Mr. Hayes stated DCP recognizes its programs, including programs fostering nuclear safety culture, exist in an environment of both climate and culture and he confirmed that, given the decision to retire DCP by 2025 the climate has changed. The formation of the People Committee was a response to this to monitor and assess plans for continuing employee engagement, staffing, succession planning and other issues. Mr. Harbor remarked DCP recognizes the need to assess how its employees continue to feel about raising issues or engaging with management and is conducting anonymous surveys, called Pulse Surveys, in that effort which reach out to approximately 400 plant staff on a quarterly basis and the results of the Pulse Surveys are reviewed by the People Committee.

The Chair thanked Mr. Hayes for a very helpful presentation and remarked the DCISC has reviewed nuclear safety culture at DCP in the past and will continue to do so over the next years as a considerable amount of transformation takes place.

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

The Chair requested Consultant Wardell to report on a fact-finding visit to DCPD on September 5-6, 2018 with Dr. Budnitz. Mr. Wardell stated topics reviewed with PG&E during that visit included the following:

- Observe Plant Health Committee Meeting - Mr. Wardell reported the Plant Health Committee meets biweekly and provides an opportunity for high level managers and directors to review the health of systems, components and the plant. Each system is assigned a health rating and Mr. Wardell reported there are currently no systems rated as unhealthy. The meeting reviewed the status of the now fully implemented FLEX equipment programs **including a concern raised by an operator concerning whether the training provided to Operations personnel on FLEX procedures and guidelines is sufficient to allow operators to carry out their responsibilities. Mr. Wardell stated the DCISC should follow up on this during the scheduled December fact-finding visit.** The Plant Health Committee meeting also included review of the top ten equipment reliability issues and Mr. Wardell reported that the fact-finding team found none of these issues to have safety-related significance.
- Control Room Simulator Status - Mr. Wardell reported every nuclear power plant has a control room simulator and at DCPD the Simulator is a complete copy of the DCPD Control Room. The Simulator is run by a computer which mimics the operation of the plant and is used to train and test operators and for emergency exercises. He reported DCPD has completed a five-year Simulator computer review with upgrades to the Simulator's hardware and software to provide assurance the Simulator will operate reliably through 2025.
- Digital Control Systems Status - Mr. Wardell reported some control systems have moved from electro-mechanical operation to computer control which enhances their reliability and flexibility and provides much better control to the operators. **Mr. Wardell remarked the DCISC has not reviewed cyber security issues in context of digital controls and the fact-finding team recommended the Committee should do so early in 2019. Mr. Wardell reported a system review of digital controls has been initiated to ensure the digital control systems will operate reliably through 2025 and this review should be complete by the end of 2018 and the fact-finding team recommended the DCISC review the results of this review in the first or second quarter of 2019 and this is now an item on the DCISC's Open Items List.**
- Vibration monitoring Program - this program is a part of the DCPD Preventive Maintenance Program and includes vibration monitoring, lubrication control and infrared thermography inspection. DCPD has installed permanent vibration monitors on some major components and has several hundred portable vibration monitors available for use as needed. The fact-finding team found the program to be successful although **the team was concerned about the reduction in staffing for the Vibration Monitoring Program and Mr. Wardell stated the team recommends DCISC review the Vibration Monitoring Program during 2019 to assess any impact on its effectiveness. Dr. Peterson observed that in context of overall reduction in preventive maintenance as the plant proceeds to shut down one would expect a more, rather than a less intensive program.** Mr. Wardell reported the fact-finding team's concern was conveyed to the Senior Director of Station Services during the fact-finding visit.

- Observe Corrective Action Review Board Meeting - Mr. Wardell stated this is a senior oversight review board for the Corrective Action Program and meets almost every day to review many of the notifications to that program. The Board also provides an effectiveness review of the Corrective Action Program. **Mr. Wardell reported there has been a reduction in the numbers of notifications written in the Corrective Action Program and the Corrective Action Review Board is assessing the reasons for this. Mr. Wardell recommended the DCISC follow up on the results of the Corrective Action Review Board's findings during a future fact-finding.** The Corrective Action Review Board meeting also discussed results of an audit by the Quality Assurance Department which found the Geosciences unit was not using approved quality assurance procedures in its work concerning the Geoscience unit's assessment of FLEX equipment. **There was discussion as to whether FLEX equipment should be considered nuclear safety-related as FLEX is provided in addition to and not as a part of the plant's design basis. The Quality Assurance Department and the Geosciences unit will review the issue and provide a recommendation to management and Mr. Wardell reported this is an issue on which the DCISC should follow up.** Mr. Wardell stated the fact-finding team found the meeting to be effective.
- Observe Readiness Review Board Meeting - Mr. Wardell reported this is a management group that does not meet regularly but rather meets as needed to review upcoming procedures. The meeting attending by the DCISC representatives was to review the cold wash of the Unit-2 230kV insulators. The insulators require cleaning due to moisture and dust accumulations and a cold wash is performed by the transmission group at PG&E. Mr. Wardell stated the fact-finding team found the Readiness Review Board review to be thorough and resulted in a positive review of the cold wash procedures. Mr. Wardell stated the Readiness Review Board also meets prior to refueling outages.
- Meet with NRC Senior Resident Inspector - the DCISC representatives met with the Senior Resident Inspector concerning the topics reviewed during the fact-finding visit and also concerning the use of FLEX in probabilistic risk assessment (PRA).
- Fire PRA Upgrade and Status of the PRA Plant-Response Model - Dr. Budnitz reported the DCISC fact-finding team met with the PRA group and reviewed the latest update of the PRA for fire events. Dr. Budnitz stated the Fire PRA looks at accident scenarios which could be initiated by or arise from an internal fire. Dr. Budnitz stated the Fire PRA is a complicated area and the DCPD effort has been peer reviewed and received an excellent review and is now available for use by the plant. The Fire PRA is used any time there is a configuration change made to make sure that in addition that the accident sequences at issue have not been made somehow more probable or the consequences made more severe. Dr. Budnitz stated he found the DCPD Fire PRA to be first class and capable of supporting not only the transition to NFPA 805 regulations but many other applications. Dr. Budnitz reported the fact-finding team also reviewed the main PRA model for how the plant responds to a transient which causes equipment to fail or stop. He stated that while the plant is designed to cope with such events and to shut down safely, the PRA is used to identify areas where through an unfortunate combination of other failures following the initiating failure an accident might emerge rather than the plant safely shutting down. The PRA model evaluates those accident sequences and has been peer

reviewed and judged to be one of the very best in the nuclear industry. DCPD has for the past several years been in the process of updating its PRA to address changes made to the plant over the years and the PRA model has been revised to reflect that the as-built plant differs from the plant's configuration today. Dr. Budnitz stated that without those changes, the PRA would not be realistic. Dr. Budnitz reported the DCISC representatives found the DCPD main PRA as updated to be more than satisfactory. Dr. Budnitz stated the ANS/ASME Standards Committee which Dr. Budnitz Co-Chairs is responsible for maintaining the standards of how one performs PRA analysis and he remarked that DCPD deserves commendation for its recent work.

➤ Meet with Mr. Jan Nimick, Station Services Senior Director - the DCISC representatives discussed the topics reviewed during the fact-finding with Mr. Nimick, including the concern by the DCISC team with the reduction in staffing for the Vibration Monitoring Program and they discussed the NRC public meeting which was to be held in San Luis Obispo on August 28, 2018.

➤ Human Performance Update - Mr. Wardell reported DCPD continuously tracks human error events as site level events, department level events or station clock resets. He reported over the past eleven years site level events have declined from approximately 25 during each refueling outage to two per outage which Mr. Wardell described as an impressive performance. Mr. Wardell reported the DCISC representatives concluded DCPD is doing a good job in reducing human error events. Dr. Budnitz observed part of the significant decrease is due to training and procedures and, in part, to careful attention to safety culture and he stated these aspects have made a major impact on reducing human error at DCPD. Mr. Wardell commented DCPD has adopted and uses a series of human error prevention tools which have been effective in reducing human error.

➤ Meet with San Luis Obispo County Office of Emergency Services - the DCISC fact-finding team met with Mr. Ron Alsop, the Director of the San Luis Obispo County Office of Emergency Services (OES) and found the OES has received very good reviews from the Federal Emergency Management Agency (FEMA) during several exercises. **Mr. Wardell reported the OES is working on issues concerning the transition to decommissioning and that Mr. Alsop has expressed his concern about the proposed NRC guidelines that would reduce funding for emergency planning as the plant proceeds through defueling and into decommissioning. Mr. Wardell stated it was his understanding from Mr. Jones presentation that site level and general emergency designations will be eliminated as the risk level from the fuel and from accidents at the shut down plant are reduced. Mr. Wardell suggested this is an issue that should warrant additional DCISC follow up.** Dr. Budnitz reported the DCISC team learned that Mr. Alsop will be retiring at the end of 2018 and he complimented Mr. Alsop's efforts as a stalwart and important part of the emergency planning efforts and, on behalf of the DCISC, he wished Mr. Alsop well in his retirement.

Dr. Gene Nelson, a representative of CGNP, was recognized. Dr. Nelson stated that DCPD is a recognized industry leader in the transition from analog to digital control systems. He commented this was an important issue as many vendors of analog systems have either gone out of business or no longer make parts for those systems. He remarked that digital systems provide much more system flexibility and more redundancy. Dr. Nelson stated he was concerned about the comments on the Vibration Monitoring Program, as a conference he recently attended

included information from the airline industry on its success in achieving safer operation, better reliability and cost benefit from the use of additional monitoring systems which make those systems smarter and capable of gathering more data. He stated the reduction in staffing in the DCPV Vibration Monitoring Department as described by Mr. Wardell causes him concern. Dr. Budnitz replied that the DCISC is alert to the issue and has discussed it with station management and will follow up as appropriate.

Upon a motion by Dr. Peterson, seconded by Dr. Lam the September 5-6, 2018 Fact Finding Report was accepted and its transmittal to PG&E authorized.

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

- A. Future Actions by the Committee. The Chair observed that this item was addressed previously during the meeting.
- B. Discussion and Possible Direction re a Future Role for DCISC After Expiration of Operating Licenses for DCPV Including Possible Engagement on an *ad hoc* basis of a Consultant to Assist in Identification of Decommissioning-related Issues.

Dr. Budnitz observed the DCISC Charter and its subsequent Restated Charter were granted by the CPUC. He stated the restatement of the Charter did not change the mandate conferred upon the DCISC to review and report on operational safety of the plant. However, the Restated Charter is ambiguous as to whether the Committee is to continue to fulfill that mandate after the plant ceases generating electricity. The issue before the Committee today is to try to resolve that question which Dr. Budnitz observed is ultimately a decision for the CPUC and the officials and entities that appoint the DCISC's members, the Governor, the California Attorney General and the Chair of the California Energy Commission.

Dr. Budnitz reported after the DCISC public meeting in June, he drafted a letter which was circulated to the other Members and the Technical Consultants setting forth his views on and analysis of the question of a post-shutdown role for the DCISC. Dr. Budnitz explained the risk to the public of a radiological release is greater when the plant is operating than it will be when it is shut down. But when the plant ceases to generate electricity the risk is not zero during the period when (1) fuel remains in the reactor vessel, (2) spent fuel is moved from the vessel to the spent fuel pool, (3) the fuel in the pools cools radioactively and thermally, and (4) all fuel is transferred from the spent fuel pool to the ISFSI. During each of these periods, the radiological and security risks decrease compared to the risk during generation operations, until the risk becomes quite low when all fuel is in dry cask storage at the ISFSI. Dr. Budnitz stated his personal belief that in considering making a recommendation concerning the post-shutdown continuance of the DCISC the Committee Members would not be engaging in a self-serving exercise. **He 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.** He remarked that although the safety risk is low as the spent fuel cools in the

spent fuel pools for a few years, there is an issue of assuring decommissioning activities protect the health and safety of workers on the site during that period.

Dr. Lam stated he agreed with Dr. Budnitz analysis of the risk implications before, during and after decommissioning and Dr. Lam believes making a request now to the CPUC to clarify the Committee's Restated Charter may be in order. Dr. Lam stated his view that clarification may be appropriate was also informed by the comments earlier in this public meeting by Judge Karlin who observed that the NRC's regulations provide that decommissioning begins when plant generation operations cease. Dr. Lam stated he was not convinced, however, that this is the appropriate time to seek clarification on the matter of the continuance of the Committee from the CPUC.

Dr. Peterson stated he concurred with Dr. Budnitz that it is important that the issue of the Committee's post-shutdown continuance be raised with the CPUC as a strict interpretation of the Restated Charter could imply the Committee must cease its work upon the cessation of generation operations but that may not be the interpretation the parties who participated in the creation of the Committee's Restated Charter intended. **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.** Dr. Peterson commented the DCISC has reviewed the scope of its current review and upon cessation of generation operations, although there may be some additions to the scope, the overall scope of DCISC review will be reduced and may not merit the current expenditure of funds for the Committee's operation. **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 observed that members of the DC DEP may be interested in having the DCISC review and make recommendations on certain questions within the purview of the DC DEP. **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.

Dr. Budnitz observed there is agreement that at some point clarification should be sought from the CPUC concerning the ambiguity in the Restated Charter concerning a post-shutdown role and he observed that clarification is needed at least a few years prior to the plant shutting down as the appointment process for membership on the Committee requires the consideration of the Governor, the Attorney General and the Chair of the Energy Commission. He observed that at the present time, membership on the Committee requires experience in nuclear power facilities and nuclear safety issues and Dr. Budnitz observed these requirements do not include decommissioning. **As members serve three-year, staggered terms, he 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.

Consultant Wardell stated he agreed with the points, conclusion and recommendation as stated in Dr. Budnitz' letter and he agreed with Drs. Lam and Peterson that this was not a matter which requires action by the Committee this year and he believes guidance should be provided to the CPUC concerning a post-shutdown role for the DCISC at varying stages of the decommissioning process.

Consultant McWhorter stated he was in general agreement with Dr. Budnitz' letter and with Drs. Lam and Peterson as to the need for more time to consider certain matters. Mr. McWhorter stated his belief that the matter should be resolved sooner rather than later as the CPUC will likely need time to adjudicate a decision and as the plant approaches the end of its licenses from the NRC, in the event of a major event resulting in equipment damage or a new regulatory issue it is possible that DCPD may shut down its reactors and cease all generation operations before the scheduled date of 2025. He also observed that the public during the DCISC's public meetings has expressed a desire for clarity as to a possible post-shutdown role for the Committee.

Dr. Budnitz remarked that it was important that the Committee hear from the public concerning the matter of a possible post-shutdown role for the DCISC and he urged members of the public present or who attended this meeting online through livestream video, or who access its proceedings subsequently, to express their views to enable the DCISC to make a fully informed recommendation to the CPUC. He remarked that out of 100 reactors on 60 sites in the United States, only the two reactors at Diablo Canyon have an independent safety committee.

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 queried what PG&E plans for its Nuclear Safety Oversight Committee (NSOC) after the plant ceases generating electricity as Dr. Peterson observed the incremental effort for PG&E to support the DCPD is actually quite small since most of this work is also performed in support of the NSOC. Dr. Budnitz replied that the internal nuclear safety committees at nuclear power plants which have shut down are replaced by a comparable committee with decommissioning expertise. **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.**

Ms. Jane Swanson, a representative of MFP, was recognized. Ms. Swanson suggested the DCISC make inquiry and seek the DC DEP members' thoughts and opinions on what type of function might be appropriate for the DCISC during different stages of decommissioning. She further suggested the Committee might invite and seek public opinion from the people it serves, especially those in the local community, through a series of questions posted on the DCISC's website.

Dr. Gene Nelson, a representative of CGNP, was recognized. Dr. Nelson commented on Dr. Victor's emphasis earlier during this public meeting on the importance of communication. He stated the DCISC has built up a great deal of good will in the local community and it would be tragic to see it discarded. Dr. Nelson stated CGNP is seeking to prevent the shutdown of DCPD. He remarked that Mr. Jones set as the annual cost of doing nothing during decommissioning as \$85 million and the cost of funding the DCISC is a pittance in comparison. Dr. Nelson stated his opinion that the function of the DCISC will remain important and the continued existence of the Committee will result in a savings to the ratepayers. If CGNP is not successful, Dr. Nelson stated the Members of the DCISC need to consider a post-shutdown role for the Committee. Dr. Nelson suggested that a transcript of Dr. Victor's remarks be provided to the CPUC on the issue of community engagement. He further observed he supported Ms. Swanson's idea of asking questions of the community concerning a post-shutdown role for the DCISC. Dr. Peterson stated he appreciated and thanked Dr. Nelson for his comments as he agreed that Dr. Nelson's observations that a committee like the DCISC could serve a very useful role in helping state and government agencies, as well as the public to make good decisions.

Ms. Sherry Lewis, a representative of MFP, was recognized. Ms. Lewis inquired whether if the DCISC were discontinued, it could subsequently be reconstituted if there was a problem such as a terrorist attack on the ISFSI. Ms. Lewis also inquired whether in the event of a canister leak at the ISFSI a spent fuel pool would be required. Dr. Budnitz replied that there is simply no answer at this time as to whether the DCISC might be reconstituted if it were to disband. As to the question about a canister leak, Dr. Peterson replied that the transport cask is licensed such that the canisters are not required to play any safety role, so once a leaking canister were placed within a transport cask, which could be accomplished without the need for a spent fuel pool, the

leaking canister could be transported. Dr. Peterson stated it was quite unlikely there would be a need to return a canister to a spent fuel pool to be opened. He also observed that it would be difficult to mobilize a release out of a cracked canister and he commented he was puzzled by Holtec firm's decision to license its canisters without considering what might happen were there to be a small aperture crack caused by stress corrosion cracking, as assuming the canisters to be perfect creates a very heavy burden and risk a loss of credibility in the manufacturer. Dr. Peterson remarked it is important for the public to understand that financial economy in decommissioning activities does not translate to increased profit for the utility.

Dr. Budnitz remarked that once all the fuel is in dry storage and the plant facilities completed removed, as is the case with the former Yankee Rowe Nuclear Generating Station in Massachusetts there are no activities to monitor other than a fence line, a guard in place and occasional visits by the NRC to ensure that there is no change to the radiation environment and Dr. Budnitz stated he did not understand why any committee would be needed for something that essentially has no operations. He reiterated his view that once the fuel is in dry storage there is no further need to safety review, although decommissioning may be continuing and the risk is not zero but the safety issues associated at that point would be related to occupational safety which is a much different discipline than that of the DCISC in reviewing reactor safety, generation operations or, potentially, radiological decommissioning.

In response to Dr. Lam's inquiry, Dr. Budnitz stated a decommissioning expert would be a person with technical engineering expertise in designing and managing decommissioning processes at nuclear power plants and analyzing them in terms of safety and efficacy. Dr. Budnitz reported there is a division of the American Nuclear Society for issues related to the fuel cycle and decommissioning and the organization holds proceedings and conferences and sessions at its annual meetings when advances in design and construction, and responses to adverse decommissioning conditions are reviewed and discussed. Dr. Budnitz stated he has provided the names of three or four such persons for consideration by the DCISC as a decommissioning consultant, including one engineer who served as a chief nuclear officer at a nuclear power plant during its decommissioning decade. Dr. Budnitz stated that PG&E will be engaging such persons and there is a possibility that one or more members of the DCISC might be appointed in the future who may have similar decommissioning-related experience and backgrounds. **Dr. Peterson remarked it was important the DCISC schedule fact-finding with the decommissioning experts engaged by PG&E.**

Dr. Gene Nelson, a representative of CGNP, was recognized. Dr. Nelson observed there are experts in the area of decommissioning but any such individuals should have the highest caliber of engineering knowledge in decommissioning matters. Dr. Budnitz stated that none of the current members of the DCISC have such expertise, but if such a member were appointed, it might not be necessary for the DCISC to consider engaging a decommissioning consultant. Dr. Nelson remarked changing DCISC member qualifications might also be an issue that needs to be raised with the CPUC.

In summary, the Committee agreed to proceed to do additional due diligence in support of drafting a letter to the CPUC concerning a post-shutdown role for the DCISC. Dr. Peterson directed that this item should remain as a regular item on the Committee's public meeting

agendas for the future. Dr. Budnitz suggested the Technical Consultants identify discrete, informative options or phases concerning post-shutdown review by the DCISC including an initial view of the character of the risk, including the security risk, and the utility of a continuing role for the DCISC during each option or phase. **Dr. Peterson agreed and directed that these options be posted on the DCISC website in advance of its next meeting in February 2019 with notice provided that the Committee is seeking input from the public and PG&E.** Dr. Budnitz observed that several years ago, PG&E made efforts to terminate the existence of the DCISC but more recently DCPD management has expressed its full support for the Committee.

C. Further Information to Obtain/Review. Mr. Garcia stated he would review the schedule for public meetings and fact-findings discussed during this public meeting and respond by email.

D. Scheduling of Future Site Visits, Study Sessions and Meetings. This item was taken up previously and there was no discussion prior to adjournment.

XXI ADJOURNMENT OF NINETY-FIRST PUBLIC MEETING

Dr. Budnitz thanked the technicians of AGP Video who provide livestreaming and audio and video recording of the DCISC's public meetings and he complimented them on their professionalism and attention to quality.

There being no further business, the ninety-first public meeting of the Diablo Canyon Independent Safety Committee was adjourned by its Chair, Dr. Robert J. Budnitz, at 3:45 P.M.

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	February 27, 2019
AGENDA ITEM:	V-A
AGENDA TITLE:	DCISC Receipt of PG&E's Response to its Twenty-Eighth Annual Report on Safety of Diablo Canyon Operations; July 1, 2017 - June 30, 2018

CONSENT ☐ ACCEPTANCE ☒ INFORMATION ☐

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

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

The Committee made no recommendations in its Twenty-Eighth Annual Report for the period July 1, 2017 – June 30, 2018.

RECOMMENDED COMMITTEE ACTION:

Motion to accept PG&E's Responses to the DCISC's Twenty-Eighth Annual Report.



**Pacific Gas and
Electric Company***

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

Diablo Canyon Power Plant
P.O. Box 56
Avila Beach, CA 93424

805.545.3242
E-Mail: JMW1@pge.com

December 17, 2018

PG&E Letter ISC-18-001

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

Response to the Diablo Canyon Independent Safety Committee Twenty-Eighth
Annual Report on the Safety of Diablo Canyon Power Plant Operations - July 1,
2017, to June 30, 2018

Dear Dr. Lam:

On November 12, 2018, Pacific Gas and Electric Company (PG&E) received the Diablo Canyon Independent Safety Committee's (DCISC) Twenty-Eighth Annual Report on the Safety of Diablo Canyon Operations for the period of July 1, 2017, to June 30, 2018.

We are pleased that the DCISC has once again concluded that PG&E operated Diablo Canyon Power Plant (DCPP) safely and has no recommendation during this report period.

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

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

Sincerely,

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

Dr. Peter Lam
December 17, 2018
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PG&E Letter ISC-18-001

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

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	February 27, 2019
AGENDA ITEM:	V-B
AGENDA TITLE:	Update on Financial Matters, Consultant Compensation and DCISC Activities During 2019

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

Staff Summary: It is expected that the Committee Members will hold a discussion regarding Committee financial matters, compensation of its Technical Consultants and DCISC planned activities during 2019.

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 2018-2019

July 10-11, 2018 Fact-finding Meeting (D.1) (PFP, RFW)

1. Annual Radioactive Release and Environmental Monitoring Reports
2. NRC Generic Issue GSI-191, Containment Sump Debris
3. System Engineering Staff Turnover
4. Quality Verification 2R20 Outage Assessment
5. Workplace Seismic Safety
6. Observe Site Alignment Workshop
7. Meeting with Senior Director, Nuclear Services, Jan Nimick
8. Meeting with NRC Senior Resident Inspector
9. Preventive Maintenance Optimization Initiative
10. Independent Spent Fuel Storage Installation Operations Update
11. Fuel Procurement Process

August 22-23, 2018 Fact-finding Meeting (D.2) (PL, RDM)

1. Meet with NRC Senior Resident Inspector
2. Observe Licensed Operator Continuing Training
3. Learning Services Department Performance
4. National Fire Protection Association 805 Program
5. DCISC Member Meet with DCPD Director
6. Operating Experience Programs
7. Meteorological Information and Dose Assessment System
8. Chemistry Department Performance
9. Reactor Coolant System Health

September 5-6, 2018 Fact-finding Meeting (D.3) (RJB, RFW)

1. Observe Plant Health Committee Meeting
2. Control Room Simulator Status
3. Digital Control Systems Status
4. Vibration Monitoring Program
5. Observe Corrective Action Review Board Meeting
6. Observe Readiness Review Board Meeting
7. Meet with NRC Senior Resident Inspector
8. Fire PRA Upgrade and Status of the PRA Plant-Response Model
9. Meet with Jan Nimick, Station Services Director
10. Human Performance Update
11. Meet with San Luis Obispo County Office of Emergency Services

October 24-25, 2018 Public Meeting (B.3)

1. Reactor Decommissioning and Proposed Changes to Decommissioning Regulations
2. Status of DCPD Decommissioning Planning, the Community Engagement Panel, Funding and Proposed Changes to NRC Decommissioning Regulations
3. San Onofre Nuclear Generating Station Decommissioning Experience
4. State of the Plant Update Including Employee Retention/Staffing Trends
5. Update on the Status of NRC Performance Indicators
6. Update on Nuclear Safety Culture, Safety Conscious Work Environment and Employee Concerns Program

7. Discussion and Possible Direction re a Future Role for DCISC After Expiration of Operating Licenses for DCPD

November 7-8, 2018 Fact-finding Meeting (D.4) (RJB, RDM)

1. Meet with NRC Resident Inspector
2. Meet with DCPD Officer
3. Tracking and Resolution of INPO Areas for Improvement
4. Health of Reactor Coolant Pumps and Seals
5. Observation of Response to Fire Alarm in Administration Building
6. Safety Injection System Health
7. Maintenance Department Performance
8. Seismic Qualifications of Switchgear Room Walls
9. Decommissioning Planning
10. Benchmarking Programs
11. Preventative Maintenance Optimization Project
12. Observation of Emergency Response Organization Muster Meeting
13. Emergency Planning

December 4-5, 2018 Fact-finding Meeting (D.5) (PFP, RFW)

1. Transporting High-Level Spent Fuel
2. QA Corrective Actions
3. Operations Performance Indicators
4. Engineering Excellence Plan
5. Delivering the Nuclear Promise
6. Spent Fuel Pool Bridge Crane
7. Meet with NRC Senior Resident Inspector
8. Meet with Senior Director Jan Nimick
9. Component Health Monitoring for Preventive Maintenance Optimization
10. Refueling Outage 1R21 Plans
11. Decommissioning Waste Disposal

January 23-24, 2019 Fact-finding Meeting (D.6) (PL, RDM)

1. Meet with Nuclear Regulatory Commission (NRC) Senior Resident Inspector
2. Health of Large Motors
3. NRC Triennial Fire Protection Inspection Results
4. Refueling Outage 1R21 Safety Plan and Safety Schedule
5. Observe Corrective Action Review Board
6. Quality Verification 2018 Audits and 2019 Audit Plan
7. Health of Emergency Diesel Generators
8. Licensed Operator Staffing Update
9. Cause and Corrective Actions for Unit 2 Trip
10. Meet with DCPD Officer

February 27-28, 2019 Public Meeting (B.6)

1. State of the Plant Update including Key Events, Highlights, Organizational Changes, and Station Activities since DCISC's October 2018 Public Meeting Including the Cause and

Corrective Actions for the December 2018 Trip of Unit 2; and Work Schedule During the 21st Refueling Outage for Unit-1 (1R21).

2. Seismic Risk Analysis (RJB)
3. Update on Emergency Preparedness Programs; Results of the October 24, 2018, Evaluated Emergency Exercise; and Emergency Preparedness Following Cessation of Operations,
4. Cybersecurity Programs for the Protection of Critical Digital Assets
5. Update on the Status of NRC Performance Indicators, Licensee Event Reports, NRC Inspection Reports and Notices of Violation, and Issues Raised by NRC Resident Inspectors
6. Quality Verification's Perspective on Plant Performance, Top Issues, Quality Performance Assessment Report.
7. Results of the 2018 Operating Plan and Key Elements of the 2019 Operating Plan Committee Discussion of Options and a Potential Role for the DCISC After Expiration of the Operating Licenses for DCPD and the Possible Engagement, on an *Ad Hoc* Basis, of a Consultant to Assist in the Identification of Decommissioning-related Issues; and to Consider the Invitation Extended to the DCISC by the Diablo Canyon Decommissioning Engagement Panel (DC DEP) for a DCISC Representative to Attend and to Make a Presentation at the DC DEP's March 13, 2019 Public Meeting in San Luis Obispo, and to Discuss Future Opportunities for Cooperation between the DC DEP and the DCISC.

March 18-19, 2019 Fact-finding Meeting (D.7) (RJB, RFW) (Proposed Agenda)

1. Meet with NRC Senior Resident Inspector
2. Meet with DCPD officer or director
3. Observe work in progress (maintenance, operations, chemistry, etc.)
4. System/component Review: Steam Generators
5. Program Review: Door Life Cycle Management Plan (including fire doors)
6. Long-Term Seismic Program Update and Discuss NRC Evaluation of SPRA
7. Update on DCPD Emergency Preparedness (performance, recent changes, planned future changes)
8. Equipment Reliability Process and Performance Indicators
9. Review 1R21 Outage Performance
10. Review Final Root Cause Evaluation and Corrective Actions for December 2, 2018 Reactor Trip

April 16-17, 2019 Fact-finding Meeting (D.8) (PL, RDM)

May 8-9, 2019 Fact-finding Meeting (D.9) (PFP, RFW)

June 5-6, 2019 Public Meeting

July 16-17, 2019 Fact-finding Meeting (RJB, RDM)

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

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

October 23-24, 2018 Public Meeting

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

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

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

February 12-13, 2020 Public Meeting

DCPP 2018-2019 Key Dates

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

February 25, 2019

June 24, 2019

November 4, 2019

Refueling Outages

1R21 February 10 – March 15, 2019

2R21 September 29 – December 8, 2019

Emergency Preparedness

(TBD)

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:

February 27, 2019

AGENDA ITEM:

V-C

AGENDA TITLE:

Consideration of Issues on the
Open Items List

CONSENT []

ACTION [X]

INFORMATION [X]

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

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

Diablo Canyon Independent Safety Committee Open Items List – 2018-2019

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). [No trips since 2014.][Follow up on corrective actions for Unit 2 trip on 12/2/18 when RCE complete.] [Reviewed draft cause and corrective action of 12/2/18 trip at January 2019 FF. Review final cause and actions at 2/19PM and/or 3/19FF.]	8/14FF 1/19FF	2/19PM 3/19FF Post-trip FFs & PMs
CO-9	F	Reactivity Management – review every 18 months. [Reviewed Reactivity Management 5/16FF and 4/18FF – satisfactory.]	See list at end of OIL	Regularly
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	3 or 4Q19FF
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	4Q19FF
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.]	6/16PM 3/16FF 12/17FF	2Q19FF
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	1Q20FF

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. [Reviewed Unit 1 visual internal weld inspection at 8/17FF - satisfactory]	7/12FF 8/17FF	1R21 & 2R21
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	4Q19FF
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 the 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 the Open Items List.] [5/18FF: The recent turnover of System Engineers has been high, and the DCISC should follow up on this issue at a future Fact-finding Meeting.]	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
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	4Q19FF
HP		Human Performance: Human Errors and Improving Safety & Efficiency of Plant Performance		
HP-1	M	Review human performance & human behavior items (including error reduction programs, HP Pls, aberrant behavior statistics, FFD, stress reduction programs, Personnel Accountability Policy, Human Performance Steering Committee & Subcomm, Centers of Excellence, Org. Development). [Review biennially operator aging, physical fitness, “no solo” issues, attention enhancement, stress management, & incentives for operator focus. Reviewed Ops Human Performance at 8/16FF – satisfactory.] [Reviewed human performance 9/18FF – excellent.]	3/15FF 8/16FF 9/18FF	9/19FF
HP-25	M	Further observations and improvements in the Management Observation Program should be reviewed by DCISC. [Reviewed 7/17FF – satisfactory.]	10/15PM 7/17FF	1 or 2Q19FF
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.]	7/17FF 10/17FF 10/18PM	2Q19FF
PI		Performance Improvement Programs		

PI-1	DCPP Performance Improvement Programs: Corrective Action, Self-Assessment, Operating Experience [and line use of OE], Benchmarking, etc. Programs reviewed are listed with dates at the end of the Open Items List.] [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	2/19PM Next evaluated exercise
EP-3 (New)	M <i>Emergency preparedness during decommissioning. [Met with SLO OES 9/18FF – satisfactory but potential for reduced monies.]</i>	10/18PM	3Q19FF
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	4Q19FF 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	4Q19FF 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 11/17FF – satisfactory.] [2/19 NSOC conflicted with PM.]	11/15FF 3/17FF	Next meeting 3Q19FF
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.]	11/17FF 11/18FF	
RP	Radiation Protection (RP)		
RP-3	M Regularly review outage RP performance. [Reviewed 2R20 outage performance – satisfactory.]	10/17PM 6/18PM	1R21
RP-12	M Review annual DCPD radioactivity release report each year. Review at Summer or Fall FFs. [Reviewed radiation release reports 7/18FF – satisfactory.]	7/17FF 7/18FF	3Q19FF
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.	1/18FF 1/19FF	2/19PM 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
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.	7/15FF 4/16FF 1/18FF	2Q19FF
ER-6	M	Health monitoring [new item]. <i>Monitoring of component health for components, which have undergone Preventive Maintenance Optimization changes. [Reviewed and found satisfactory in 11/18 and 12/18 FFs – close.]</i>	6/18PM 11/18FF 12/18FF	Close
ER-7 (Moved from CM-14)	M	Use and Plans for Use of Wireless Technology within the Power Block – DCPD Electronic Device Project is focused on increasing the use of electronic devices, including tablets, in connection with maintenance tasks and for recording data during inspection rounds. This is intended to improve efficiency and reduce paper. A few electronic work packages have been issued. A second project involves use of electronic devices and increased use of wireless information technology (IT) within the Power Block. The Power Block consists of those portions of the plant used to generate electricity including the Turbine Building, the Auxiliary Building and the Control Rooms. One of the problems with use of wireless technology is the potential for radio interference with a plant control system, which must be properly shielded and protected. [Review electronic work packages.] [Reviewed at 9/16FF – satisfactory.] How are the much larger data sets being managed? [Reviewed at Dec. 2017FF – satisfactory.]	9/16FF 12/17FF	2Q19FF
OE		Organizational Effectiveness & Development (OE)		
OE-1	F	Review DCPD Operating Plan each January after development. [Reviewed at 1/16FF & on agenda for 2/16PM.] [Reviewed at 3/18FF – satisfactory.]	2/17PM 3/18FF	2/19PM
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	1R21 2R21
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	1R21 2R21
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.]	3/17FF 6/17PM	3Q19FF
SE-49	F	Emergency Diesel Generators (EDGs) – [Reviewed at 1/19FF: U1 Green, U2 White.] [Review EDG Reliability Program at next EDG FF.]	12/17FF 1/19FF	1Q20FF
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.] <i>[Reviewed improvements to SFP bridge crane – satisfactory. Close if 1R21 performance good.]</i>	6/17PM 4/18FF 12/18FF	1R21 2R21, then close
SE-53	F	Monitor salt deposition on external equipment, systems, EDG, ventilation systems, transformers, etc. [Check with DCPD 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	3Q20 FF
SG		Steam Generator Performance (SG)		
SG-1	M	<i>Results of inspections and tests occurring in outages 1R21 and 2R21.</i>	10/18PM	3/19FF

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. [Containment- and non-Containment outage work tours in 3/18FF – satisfactory.] [DCPP Quality Verification completed an audit of Operations and Technical Specifications in June 2018. The audit concluded that the audited programs were effectively implemented; however, it identified 17 deficiencies. The DCISC should follow up on the corrective actions for these deficiencies in early 2019.]	5/17FF 8/17FF 3/18FF	1R21 2R21
OM-4	M	Review Outage Safety Plan, safety margin trends, outage results, including clearances, following each outage at FFs and PMs. <i>[Reviewed at 1/19FF – satisfactory.]</i>	5/16FF <i>1/19FF</i>	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.]	See list at end of OIL	Regularly RFOs
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.	8/14FF 7/16FF 5/18FF	2Q20FF
SEC-4	M	Review DCPP 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.]	6/18PM	<i>2/19PM</i>
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.]	11/17FF 7/18FF	<i>4Q19FF</i>
SF-2	M	Follow technical advances of relative risks of cask and pool storage. NRC Staff study and Commissioners' vote. Monitor needs for opening casks to inspect fuel. Monitor SONGS & Humboldt Bay spent fuel transfer plans. Include corrosion of metals [Reviewed at 12/16FF – satisfactory.] [Reviewed inspections 12/17FF – satisfactory.]	12/16FF 10/17PM 12/17FF	<i>4Q19FF</i>
SF-3	M	Review the seismic adequacy of ISFSI in its license extension. Use latest seismic analysis.	6/18PM	<i>4Q19FF</i> 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.] DCPP Seismic study reviewed 3/15 FF & to be presented by DCPP at 6/15PM. Shoreline Fault – follow activities and events with the Shoreline Fault. Review NRC's Review Report within several months. Consider Hamilton input?	6/15PM 11/15FF 8/16FF	<i>4/19FF</i> RJB
SC-12	F	Workplace seismic safety – review annually. [Reviewed at 5/18FF – some problems – follow up on resolution and Control Room procedures "crash cart" stability. [Discrepancies in workplace seismic standards (e.g., unbraced furniture) were caused by inadequate knowledge transfer during Building Services personnel turnovers, although the plant had a written standard. The DCISC should follow up on this item in early 2019.]	2/16PM 5/18FF 7/18FF	<i>5/19FF</i> 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 – zero fire door impairments & watches.] <i>[Reviewed NRC Triennial FP Inspection 1/19FF – satisfactory.]</i>	7/17FF 11/17FF <i>1/19FF</i>	1Q20FF
LD		Learning & Development Programs (LD)		
LD-3	M	Review non-license technical, operations & accredited training programs at least annually. [Reviewed Maintenance Training Programs 12/14FF – satisfactory.] <i>[None available 12/18FF. Try 2Q19FF.]</i>	12/14FF 12/14FF	<i>2Q19FF</i>
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.] <i>[Reviewed licensed operator training plans 1/19FF – satisfactory.]</i>	12/16FF 8/18 FF <i>1/19FF</i>	<i>3or4Q20</i> <i>FF</i>
NR		Nuclear Regulatory Commission Items (NR)		
NR-3	M	Monitor the Non-Cited Violation Tracking & Trending Program annually at the Jan/Feb Public Meetings.	3/year	Each PM
NR-4	F	Meet with NRC Resident Inspectors regularly. [Note: Next Action changed to "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. [Reviewed EASW pump test results at 11/16FF. Results satisfactory.] [Reference seismic fragility – RA6 – RA7] [Observed FLEX operator training Nov 2017 FF – satisfactory.] [Observed SFP level instrumentation and FLEX connection 5/18FF.]	5/16FF 11/16FF 7/17FF 11/17FF 5/18FF	2Q19FF
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 DCCP because of the potential impact on staffing and future options with respect to managing spent fuel. Dr. Peterson observed there have been multiple approaches taken to decommissioning in terms of rate and timing and the DCISC will need to review and discuss with its appointing entities whether and to what extent it will engage in a review of PG&E's decommissioning plans for DCCP. <i>[Reviewed at 1/18FF – satisfactory. Continue to monitor.]</i>	1/17FF 10/17PM 3/18FF <i>10/18PM</i> <i>11/18FF</i>	<i>4Q19FF</i>
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. [Consultants preparing DCISC decommissioning activity matrix for discussion at 6/18PM.]	6/18PM 10/18PM	2/19PM
DEC-4	F	Dr. Peterson commented that . . . it would be worthwhile to follow up and identify the differing categories of waste that will be produced during decommissioning and their respective safe disposal paths and to ensure that there will not be any stranded waste left at the site. <i>[Reviewed at 12/18FF – satisfactory. Close.]</i>	10/17PM <i>12/18FF</i>	<i>Close</i>
O		Other Items (O)		

O-1	F	Perform observations of evolutions (work processes) within the plant periodically. [Performed observation of Turbine Building 11/13FF, 12/16FF and 3/17FF – satisfactory. Chemistry sampling 8/17FF] Continue with these about annually.] [Observed operator rounds in EDG room – satisfactory.] [11/18 - Observed EDG Maint Outage Work.]	8/17FF 1/18FF 11/18FF	4Q19FF
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 RFOs
Oct. 2017 PM 7	F	Dr. Peterson stated the informational video now being produced for the Committee should provide a vehicle to introduce the Committee to the public and to describe how the Committee functions and performs its safety review function and the time on the ride back to the Energy Education Center from the plant should be employed to afford the public the opportunity for the public to ask questions of the Committee. [Reviewed at 2/18PM. Changes needed.] [Review final version at 2/19PM and close.]	10/17PM 2/18PM	2/19PM, then close
8	F	Dr. Budnitz made an offer, which the other Members accepted, to take the lead in identifying such persons (to investigate and identify a person with experience in decommissioning a nuclear power plant). Dr. Peterson commented he is interested in understanding the disposition path for all the various materials and components which will result from decommissioning a nuclear power plant. [Discussed at 2/18PM. DCISC to invite Dr. David Victor invited to speak at 6/18PM, but invitation accepted for 10/18PM.]	10/18PM	2/19PM
Feb 2018 PM 4	F	Dr. Peterson observed there is also an issue regarding how the transportation cask would be moved to a federal repository, whether by barge, road or rail, and he suggested it would be worthwhile for the Committee to follow up to verify the technical and logistic practicality of these different approaches. [Reviewed at 12/18FF – satisfactory. Close.]	2/18PM 12/18FF	Close
14	F	Dr. Peterson remarked this was an area [NRC required staffing] on which the DCISC should follow up including actions required should certain staffing requirements not continue to be met. [Included in Item CO-14. Close here.]	2/18PM 1/19FF	Close
15	F	Dr. Peterson stated the DCISC should schedule a future fact-finding with the County Office of Emergency Services (OES) manager to review the impact of a future significant reduction in resources on OES planning. [Reviewed 9/18FF. OES monies likely to be reduced. Discuss at 10/18PM.] [Added Item EP-3, EP during decommissioning. Close here.]	2/18PM 9/18FF	Close
19	F	Dr. Peterson remarked that, as this initiative [Delivering the Nuclear Promise] has the potential to provide significant opportunities to improve performance in Operations, Engineering and Maintenance organization, this is an important and interesting initiative for the DCISC to review in fact-finding as it may provide a mechanism to enhance safety and mitigate potential future retention problems. [Reviewed at 12/18FF – satisfactory – close.]	2/18PM 12/18FF	Close
June 2018 PM 1	F	The Committee also considered the impact of the [CAPUC] Decision on San Luis Obispo County emergency services, but it is the DCISC's understanding that emergency services are required to be continued under other NRC regulations and will work to confirm that is the case. [This reviewed with SLO OES at 9/18FF. To be discussed at 10/18PM.] [Added Item EP-3, EP during decommissioning. Close here.]	6/18PM	Close

3	F	Disposition of all waste from nuclear power plants is now required by a California Executive Order to take place outside of California and this could likely involve large volumes of fill and concrete and PG&E may seek to modify the Executive Order in some manner to allow some material to be reused on the site. Dr. Peterson remarked the DCISC should follow up on this Executive Order as it may not necessarily be risk-informed. Dr. Peterson observed it is pertinent to ensure there is a disposition pathway for all materials that is either readily available or for which a storage option exists until a disposition pathway is available. <i>[Reviewed at 12/18FF – satisfactory – close.]</i>	6/18PM	<i>Close</i>
4	F	Mr. McWhorter reported the FFT concluded the DCISC should continue to monitor the effectiveness of the Employee Retention Program. <i>[Included in Item CO-14. Close here.]</i>	6/18PM	Close
6	F	QV assessment identified some items identified for improvement including: the Confined Space Program not having been rigorously followed; challenges to ensure work instructions are adequate; problems with Operations verifying equipment configurations and plant conditions. Mr. Wardell recommended the DCISC follow-up on these three deficiencies identified for improvement. <i>[Reviewed at 12/18FF – satisfactory – close.]</i>	6/18PM	<i>Close</i>
9	F	Dr. Peterson remarked that offering employees opportunities for professional development might result in an operator strengthening his or her position for a subsequent career and it would be worthwhile for the Committee to investigate in a fact-finding setting the program for rotating personnel to obtain experience elsewhere in the organization with the expectation that they could return and contribute to DCPD through the end of its licensed operation.	6/18PM	<i>2Q19FF</i>
10	F	Dr. Budnitz remarked that he would request to inspect the non load-bearing walls in the 4 kV and DC bus rooms during a future fact finding visit.	6/18PM <i>11/18FF</i>	<i>Close</i>
<i>Oct. 2018 PM 1</i>	<i>F</i>	<i>Dr. Peterson commented the DCISC would look into the issue [exemption from ultrasonic testing of reactor vessel] raised by Ms. Seeley at its next fact-finding in December 2018. Mr. Wardell reported the issue of the exemption from ultrasonic testing was reviewed by the Committee previously and it was found that the exemption was applicable to a portion of the test and was due to the geometry of the reactor vessel which prevented the use of instruments to get an accurate reading. He offered to provide information to Ms. Seeley on the review of that issue. Dr. Budnitz stated it was his understanding DCPD has conducted analyses under 10 CFR 50.61(a) which show the vessels are not subject to embrittlement, Dr. Lam commented that while he initially had concerns about the NRC's motivation in promulgating 10 CFR 50.61(a) he is now convinced that the alternate regulation is based upon better science. [Based on DCISC review and Budnitz and Lam conclusions, this item can be closed.]</i>	<i>10/18PM</i>	<i>Close</i>
2	<i>F</i>	<i>The Members discussed and agreed that the reference in the 28th Annual Report in Specific Conclusion No. 1, concerning a reduction in the rate of identification of violations of a very low safety significance, should state this appears to be an improvement from most periods and the DCISC will continue to carefully review this trend. [Action complete – close.]</i>	<i>10/18PM</i>	<i>Close</i>
3	<i>F</i>	<i>Quality Verification 2R20 Outage Assessment - Quality Verification (QV) found that operators during 2R20 did not take appropriate action to verify equipment configuration and the issue was identified as an Area Requiring Management Attention And placed in the Corrective Action Program. Mr. Wardell stated the DCISC would follow up on this issue at the December 2018 fact-finding. [Item reviewed at December 2018 Fact-finding –satisfactory - close.]</i>	<i>10/18PM</i>	<i>Close</i>

4	F	A formal plant program is now in place and Mr. Wardell reported this item will be reviewed during Dr. Peterson's May 2019 fact-finding.	10/18PM	5/19FF
5	F	The cross-discipline team has reviewed 8,474 preventive maintenance activities and eliminated 1,148, changed the frequency of 2,151 and changed the scope of 219 and Mr. Wardell described this as good progress. He reported the DCISC will review these efforts at a fact-finding in December 2018. [See Item ER-6 above – close.]	10/18PM	Close
6	F	The NRC will conduct its triennial Fire Protection Inspection which will be the first such inspection since implementation of NFPA 805 and the DCISC will review the results of that inspection early in 2019. [Reviewed and found satisfactory at January 2019 FF. Close.]	10/18PM	Close
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 DCCP'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	3Q19FF 10/19PM
8	F	He [Mr. Jones] reported part of the preplanning efforts to meet the charge from the CPUC is the completion of a fuel study that is now in its second draft for review to determine how DCCP can move past the ten-year window to achieve a seven-year window. Dr. Budnitz reported the DCISC will wait and watch the report which comes out of that evaluation.	10/18PM	Awaiting DCCP Report
9	F	... a concern raised by an operator concerning whether the training provided to Operations personnel on FLEX procedures and guidelines is sufficient to allow operators to carry out their responsibilities. Mr. Wardell stated the DCISC should follow up on this during the scheduled December fact-finding visit. [Discussed at December 2018 FF meeting. PHC carrying an action item for Operator training. Satisfactory. Close.]	10/18PM	Close
10	F	Mr. Wardell remarked the DCISC has not reviewed cyber security issues in context of digital controls and the fact-finding team recommended the Committee should do so early in 2019. Mr. Wardell reported a system review of digital controls has been initiated to ensure the digital control systems will operate reliably through 2025 and this review should be complete by the end of 2018 and the fact-finding team recommended the DCISC review the results of this review in the first or second quarter of 2019 and this is now an item on the DCISC's Open Items List.	10/18PM	2/19PM
11	F	[T]he [FF] team was concerned about the reduction in staffing for the Vibration Monitoring Program and Mr. Wardell stated the team recommends DCISC review the Vibration Monitoring Program during 2019 to assess any impact on its effectiveness. Dr. Peterson observed that in context of overall reduction in preventive maintenance as the plant proceeds to shut down one would expect a more, rather than a less intensive program. [Discussed 12/19FF with Director of Engineering, who advised that vibration engineering resources are now adequate. Close]	10/18PM 12/18FF	Close
12	F	Mr. Wardell reported there has been a reduction in the numbers of notifications written in the Corrective Action Program and the Corrective Action Review Board is assessing the reasons for this. Mr. Wardell recommended the DCISC follow up on the results of the Corrective Action Review Board's findings during a future fact-finding.	10/18PM	2or3Q19 FF

13	F	There was discussion as to whether FLEX equipment should be considered nuclear safety-related as FLEX is provided in addition to and not as a part of the plant's design basis. The Quality Assurance Department and the Geosciences unit will review the issue and provide a recommendation to management and Mr. Wardell reported this is an issue on which the DCISC should follow up.	10/18PM	2Q19FF
14	F	Mr. Wardell reported the OES is working on issues concerning the transition to decommissioning and that Mr. Alsop has expressed his concern about the proposed NRC guidelines that would reduce funding for emergency planning as the plant proceeds through defueling and into decommissioning. Mr. Wardell stated it was his understanding from Mr. Jones presentation that site level and general emergency designations will be eliminated as the risk level from the fuel and from accidents at the shut down plant are reduced. Mr. Wardell suggested this is an issue that should warrant additional DCISC follow up. [Included in new item EP-3. Close here.]	10/18PM	Close

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.		
17	F	Dr. Budnitz stated he has provided the names of three or four such persons for consideration by the DCISC as a decommissioning consultant, including one engineer who served as a chief nuclear officer at a nuclear power plant during its decommissioning decade. Dr. Budnitz stated that PG&E will be engaging such persons and there is a possibility that one or more members of the DCISC might be appointed in the future who may have similar decommissioning-related experience and backgrounds. Dr. Peterson remarked it was important the DCISC schedule fact-finding with the decommissioning experts engaged by PG&E. [Discuss further at February 2019 PM.]	10/18PM	2/19PM
18	F	Dr. Budnitz suggested the Technical Consultants identify discrete, informative options or phases concerning post-shutdown review by the DCISC including an initial view of the character of the risk, including the security risk, and the utility of a continuing role for the DCISC during each option or phase. Dr. Peterson agreed and directed that these options be posted on the DCISC website in advance of its next meeting in February 2019 with notice provided that the Committee is seeking input from the public and PG&E. [Completed by Technical Consultants and sent to the Committee for discussion at the February 2019 PM.]	10/18PM	2/19PM

Diablo Canyon Independent Safety Committee Open Items List – 2018-2019

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 – Apr 2016
 Containment Structure – Sep 2016
 Containment Spray – August 2016
 Control Room Simulator – Sep 2018
 Control Room Ventilation – April 2018
 Digital Systems – Sep 2018
 DC Power – Jul 2017
 EDG – **Jan 2019**
 High Pressure Injection – April 2015
 Plant Protection System – Nov 2017
 Process Protection System Digital Upgrade – Jun 2016
 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
 AOV – May 2018
 Benchmarking – **Nov 2018**
 Boric Acid Corrosion Control – Apr 2018 (review biennially)
 Buried Piping & Tanks – Jan 2017

Chemistry – Aug 2018
 Cranes – Aug 2016
 Configuration Management – Jul 2015 & Sep 2015
 Corrective Action – CARB **Jan 2019**
 Door Life Cycle Management Plan – Mar 2014
 Emergency Preparedness Exercises – **Nov 2018**
 Employee Concerns Program – Oct. 2017
 Equipment Environmental Qualification – Aug 2017
 Excellence Plan – March 2018
 Fire Doors – Nov 2017
 Fire Protection (Non-NFPA-805) – Mar 2017
 Fire Protection (NFPA-805) – Aug 2018
 Flow Accelerated Corrosion – Apr 2016
 FME – Sep 2017
 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 – March 2017
 Operational Decision Making – Apr 2015
 PRA Programs (non-seismic) – Sep 2017
 Performance Improvement – Nov 2017
 Performance Review Quarterly Meeting – May 2015
 Plant Health Committee – Sep 2018
 Reactivity Management – April 2018
 Safety-Security Interface – Jul 2016
 Self-Assessment – Sep 2016
 Single Point Vulnerabilities – Jan 2015
 Seismic PRA – Sep 2017
 Seismically Induced System Interactions – 5/17FF (review biennially)
 Software QA -- March 2018
 System Engineering – Mar 2015
 Transformers, Large – May 2018

February 27-28, 2019 Public Meeting
2/19/19

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

Trending Analysis – Jan 2014
Troubleshooting – Jan 2015
Tsunami Hazard Analysis – Sep 2017
Vibration Monitoring – Sep 2018

February 27-28, 2019 Public Meeting
2/19/19

FF = Fact-finding Meeting

PM = Public Meeting

Q = Quarter

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	February 27-28, 2019
AGENDA ITEMS:	VII-A, B & C and XXVI 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 Rathie concerning items listed or on other matters.

Fact finding reports may be submitted for consideration and comment by members and consultants since the last public meeting of the DCISC in October 2018. 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 November 7-8, 2018, December 4-5, 2018, and January 23-24, 2019.

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE	
AGENDA TRANSMITTAL FORM	
MEETING DATE:	February 27, 2019
AGENDA ITEM:	VI-B
AGENDA TITLE:	Documents Provided to the Committee
CONSENT [] ACTION [] INFORMATION [X]	
Staff Summary: Attached for your information are copies of the transmittal memoranda which list the various documents provided to the Committee by PG&E since your last public meeting in October 2018.	
RECOMMENDED COMMITTEE ACTION: None, information item only.	

October
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

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

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

Date	Letter No.	Title
10/15/18	DCL-18-082 DIL-18-014	Emergency Plan Implementing Procedure Update

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
9/28/18	(OUO) Diablo Canyon Power Plant, Units 1 and 2 – NRC Security Inspection Report 0500275/2018404, 05000323/2018404 and Investigation Report 4-2017-009
10/11/18	Acceptance Review – Request to Revise Emergency Plan Response Organization Staffing and Augmentation (EPID L-2018-LLA-0248)
10/26/18	Notice of Forthcoming Closed Meeting with Pacific Gas and Electric Company to Discuss Security-Related Information for Diablo Canyon Nuclear Power Plant, Units 1 and 2 (EPID L-2018-LRM-0069)
10/31/18	Diablo Canyon Power Plant – NRC Inspection Report 05000275/2018003 and 05000323 and Independent Spent Fuel Installation Inspection Report 07200026/2018002

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

Date	Doc. No.	Title
NSOC		There are no NSOC minutes/responses from this month.
PSRC Minutes		There are no PSRC minutes from this month.

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

Type	Doc. No.	Title
RCAs		There are no RCAs for this month.
ACE	SAPN 50995424	DA-QAAF – Geosciences QA Prog ineffective
Eff. Eval		There are no Effectiveness Evaluations for this month.
10/5/18		Condition Report Backlog Curves
10/12/18		Condition Report Backlog Curves
10/19/18		Condition Report Backlog Curves
10/26/18		Condition Report Backlog Curves

October
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.
9/17/18	FileNet #181550006	2018 Training and Qualifications Audit
10/18/18	FileNet #182390002	2018 Quality Assurance Program Audit
		There is no new Schedule for this month.
9/27/18	Quality Verification Assessment # 182680010	Unit 2 Curtailment, September 2018
10/11/18	Quality Verification Assessment # 182820002	GSI-191 Closure Assessment
10/18/18	Quality Verification Assessment # 182820001	Tags-Plus Program Implementation
10/10/18		Quality Digest; Information You Can Use
10/29/18	File # 182970001	Scaffold Program Compliance

G. Nuclear Safety Culture Monitoring Panel Reports (NSOC Only)

Date	Doc. No.	Title
10/12/18		Nuclear Safety Culture Review Report for Period April 1 – July 15, 2018

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

Date	Doc. No.	Title
		There is no updated Quick Hit Self-Assessment (QHSA) Schedule for this month.
		There are no Formal Benchmarking and Self-Assessments Schedules for this month.
10/30/18	SAPN 50996422	Informal BM: OE Evaluation Timeliness

October
List of Documents Transmitted Electronically

10/15/18	SAPN 50993729	QHSA of IER 17-9
10/22/18	SAPN 50996200	QHSA – Station Programs
10/25/18	SAPN 50983489	2018 Self-Assessment - SPM
11/1/18	SAPN 50926853	QHSA – WCSFM Review of New Plant Issues

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

Date	Doc. No.	Title
5/3/18		Nuclear Generation Operating Plan 2018-2022, No new updates this month.
PIR		Diablo Canyon Power Plant; Plant Performance Improvement Report Achieving Results; Data: August 2018; Report Data: September 18, 2018
Station Initiative		
10/13/18		Operations Services Department Excellence Plan/Goals 2017-2018; Our Path Forward
10/13/18		Our Path Forward 2017-2018; Leadership Engagement in PI Processes
10/13/18		Nuclear Work Management 2018 Excellence Plan
10/15/18		Learning Services Excellence Plan 2018; Generating Excellence
10/15/18		Our Path Forward 2017-2018; Organizational Effectiveness Excellence Plan
IPM		There are no IPMs for this month.

J. INPO

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

K. Operational Documents (ODM Minutes, POAs)

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

October
List of Documents Transmitted Electronically

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
10/1/18	Jim Welsch's Weekly Alignment Update
10/8/18	Jim Welsch's Weekly Alignment Update
10/15/18	Jim Welsch's Weekly Alignment Update
10/22/18	Jim Welsch's Weekly Alignment Update
10/29/18	Jim Welsch's Weekly Alignment Update

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 201839	T+1 Performance Critique
	Week 201840	T+1 Performance Critique
	Week 201841	T+1 Performance Critique
	Week 201842	T+1 Performance Critique
	Week 201843	T+1 Performance Critique

November
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

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

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

Date	Letter No.	Title
11/7/18	DCL-18-090	ASME Section XI Inservice Inspection Program Relief Request NDE-SG-PZR-IRS Steam Generator and Pressurizer Nozzle Inside Radius Sections
11/13/18	DCL-18-094 DIL-18-015	Emergency Plan Implementing Procedure Update
11/14/18	DCL-18-095 DIL-18-016	Emergency Plan Implementing Procedure Update
11/27/18	DCL-18-096	Certification of Permanent Cessation of Power Operations

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
11/7/18	Pre-Submittal Meeting with Pacific Gas and Electric Company (PG&E) to Discuss Exemption Request to Withdraw Funds from the Nuclear Decommissioning Trusts to Fund Decommissioning Planning Activities
11/19/18	Nuclear Regulatory Commission's Analysis of Pacific Gas and Electric Company's Initial Decommissioning Funding Plan and Updated Decommissioning Funding Plan for Diablo Canyon's Independent Spent Fuel Storage Installation
11/21/18	Acceptance Review – Relief Request NDE-SG-PZR-IRS, Relief from Requirements of American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI Examination Requirements (EPID L-2018-LLR-0138)
11/26/18	Diablo Canyon Power Plant, Units 1 and 2 – NRC Triennial Fire Protection Inspection Report 05000275/2018007 and 05000323/2018007
11/26/18	Diablo Canyon Power Plant, Units 1 and 2 – NRC Security Baseline Inspection Report 05000275/2018403 and 05000323/2018403

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 minutes for this month.

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

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

November
List of Documents Transmitted Electronically

ACE	11/19/18	DA-ME Resource Qualification Challenges
Eff. Eval		There are no Eff. Evals for this month.
11/2/18		Condition Report Backlog Curves
11/9/18		Condition Report Backlog Curves
11/16/18		Condition Report Backlog Curves
11/23/18		Condition Report Backlog Curves
11/30/18		Condition Report Backlog Curves

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.
		There is no new Schedule for this month.
11/14/18		Quality Digest; Information You Can Use; November 2018
11/29/18	Quality Verification Assessment #183170050	Placekeeping

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
12/10/18	SAPN 50997166	2018 DBAI SA: OE Program Enhancement
12/10/18	SAPN 51000146	Informal BM: OE/ICES Working Meeting
12/10/18	SAPN 51000709	Benchmark Chubu Sep 2018 – Informal
12/10/18	SAPN 50931893	2016 Planning Department QHSA
12/10/18	SAPN 50951345	2018 DBAI Formal Self-Assessment
12/10/18	SAPN 50960312	Operations Training 2018 Comp SA

November
List of Documents Transmitted Electronically

12/10/18	SAPN 50967230	Corporate QHSA for Diving Programs
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I. Performance Information (PPIR, Operating Plan, Station Initiatives, IPMs)

Date	Doc. No.	Title
		Nuclear Generation Operating Plan 2018 – 2022, No new updates this month.
PPIR	11/20/18	Diablo Canyon Power Plant, Plant Performance Improvement Report Achieving Results; Data: October 2018
Station Initiative		
11/13/18		Operations Excellence Plan
IPM		There are no new IPMs this month.

J. INPO

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

K. Operational Documents (ODM Minutes, POAs)

Date	Doc. No.	Title
ODMs		
11/26/18		ODM for High Swell Warning
11/27/18		Main feed pump 1-1 Vibration ODM
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
	SDP 18-01, Rev 0	Failure of Unit 2 Interlock Valve SI-2-8974A

N. Miscellaneous

Date	Title
11/5/18	Jim Welsch's Weekly Alignment Update
11/13/18	Jim Welsch's Weekly Alignment Update

November
List of Documents Transmitted Electronically

11/19/18	Jim Welsch's Weekly Alignment Update
11/26/18	Jim Welsch's Weekly Alignment Update
	2019 Key Dates
	Swim Lane Graphics Requested by DCISC
	DCISC Fact Finding Schedule
11/29/18	Drill Critique Report; Bravo Team NRC Evaluated Exercise
	GET – Rad Worker

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 201844	T+1 Performance Critique
	Week 201845	T+1 Performance Critique
	Week 201846	T+1 Performance Critique
	Week 201847	T+1 Performance Critique
	Week 201848	T+1 Performance Critique

P. Documents Previously Transmitted during the Month

Date	Doc. No.	Title
		There are no documents previously transmitted during the month.

December
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

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

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

Date	Letter No.	Title
12/5/18	DCL-18-105	Submittal of the Fourth Ten-Year Interval Inservice Testing (IST) Program Plan, Revision 1
12/13/18	DCL-18-108	Access to Nuclear Decommissioning Trust Fund
12/17/18	DIL-18-019	Decommissioning Funding Plan
12/20/18	DCL-18-112	Technical Specification 5.6.8 PAM Instrumentation Report
12/26/18	DCL-18-100	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 (2.390)

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
12/31/18	Summary of November 29, 2018, Public Meeting with Pacific Gas and Electric Company to Discuss the Proposed Exemption Request to Withdraw Funds from the Nuclear Decommissioning Trusts to Fund Decommissioning Planning Activities at Diablo Canyon Nuclear Power Plant, Units 1 and 2 (EPID L-2018-LRM-0074)

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		
12/19/18	2018-012	PG&E Letter HIL-18-006, "License Renewal Application for the Humboldt Bay Independent Spent Fuel Storage Installation"
12/19/18	2018-016	License Amendment Request 18-01, "Request to Revise Emergency Plan Response Organization Staffing and Augmentation"

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

Type	Doc. No.	Title
RCAs		There are no RCAs for this month.
ACE		There are no ACEs for this month.
Eff. Eval		There are no Effectiveness Evals for this month.

December
List of Documents Transmitted Electronically

12/7/18		Condition Report Backlog Curves
12/14/18		Condition Report Backlog Curves
12/21/18		Condition Report Backlog Curves

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

Date	Doc. No.	Title
12/6/18	FileNet # 183230009	Quality Performance Assessment Report (QPAR); Third Period 2018; July 1, 2018 through November 1, 2018
12/5/18	FileNet # 182550009	2018 Maintenance Audit
12/19/18	FileNet # 182330011	2018 Cyber Security Audit
10/29/18	FileNet # 182970001	Scaffold Program Compliance (Escalation Letter)
1/2/19	Quality Verification Assessment # 183520003	Unit 2 Load Rejection and Trip
12/31/18		Quality Digest; Information You Can Use

G. Nuclear Safety Culture Monitoring Panel Reports

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

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

Date	Doc. No.	Title
		There are no updated schedules for this month.
12/11/18	SAPN 50992475	Prairie Island Informal Benchmarking
12/11/18	SAPN 50994900	Informal Benchmark – EPRI – mWM (eWP)
1/10/19	SAPN 50944205	Shearon Harris Benchmark Trip 2017
1/10/19	SAPN 50947669	IER 17-5 Formal Benchmarking
1/10/19	SAPN 50995645	Security Training Trip Report

December
List of Documents Transmitted Electronically

1/10/19	SAPN 51001870	Sequoyah E&A Benchmark
1/10/19	SAPN 50863747	IER L2-16-9 Rec 7 Self-Assessment
12/11/18	SAPN 50997240	Quick Hit S.A. of DCCP Rigging Perf.
1/10/19	SAPN 50907925	QHSA: Engr Rigor and Tech Conscience
1/10/19	SAPN 50952232	Self-Assessment for M&TE Program
1/10/19	SAPN 51000308	Cyber Security Training Self-Assessment
1/10/19	SAPN 51002948	IER 17-9 QHSA

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

Date	Doc. No.	Title
5/3/18		Nuclear Generation Operating Plan 2018 – 2022, No new updates this month.
PIR	12/26/18	Diablo Canyon Power Plant; Plant Performance Improvement Report Achieving Results; Data: November 2018
Station Initiative	1/11/19	Learning Services Excellence Plan 2019; Generating Excellence
	1/14/19	Organizational Effectiveness Excellence Plan
IPM		There are no IPMs this month.

J. INPO

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

K. Operational Documents (ODM Minutes, POAs)

Date	Doc. No.	Title
ODMs		FDOR for Moving both Units past the 1700MW SPS Arming Septpoint
POA		There are no new POAs this month.

December
List of Documents Transmitted Electronically

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
12/3/18	Jim Welsch's Weekly Alignment Update
12/10/18	Jim Welsch's Weekly Alignment Update
12/21/18	Total Safety Accident Rate (SP-39) (Larry Meyer)
12/21/18	Recordable Injuries – DCPD Total (SP-37) (Larry Meyer)

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 201849	T+1 Performance Critique
	Week 201850	T+1 Performance Critique
	Week 201851	T+1 Performance Critique
	Week 201852	T+1 Performance Critique

January
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

Date	LBIE No.	Title
1/30/19	2019-001	Nuclear Safety Capability Assessment M-1177
1/30/19	2019-002	Nuclear Safety Capability Assessment M-1179
1/30/19	2019-003	SAPN 50873211 DA-FSAR Table ESF Non-LOOP Delays

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

Date	Letter No.	Title
1/15/19	DCL-19-002, DIL-19-001	Emergency Plan Implementing Procedure Update
1/29/19	DCL-19-004 DIL-19-002 HBL-19-001 HIL-19-002	Notification of Voluntary Petition for Bankruptcy
1/30/19	DCL-19-007	Licensee Event Report 2-2018-001-00, Automatic Reactor Trip of Unit 2 Following a Load Rejection

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
1/3/19	Diablo Canyon Power Plant, Units 1 and 2 – NRC Initial Operator Licensing Examination Approval 05000275/2019301; 05000323/2019301
1/7/19	Acceptance Review – Diablo Canyon Exemption Request for Access to Nuclear Decommissioning Trust (NDT) Funds for Decommissioning Planning Activities (EPID L-2018-LLE-0023)
1/23/19	Acceptance Review – License Amendment Request to Revise Technical Specification (TS) 5.6.b, “Core Operating Limits Report (COLR)” for Full Spectrum Loss-of-Coolant Accident Methodology (EPID L-2019-LLA—730)
1/25/19	Diablo Canyon Nuclear Power Plant, Units 1 and 2 – Request for Alternative from Volumetric/Surface Examination Frequency Requirements of ASME Code Case N-729-4 (EPID L-2018-LLR-0107)

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		
11/16/18	2017-017	NOED for ASW 2-1 Inoperable Notice of Enforcement Discretion
12/2/18	2018-018	OP1.DC1, Attachment 5 Readiness for Restart
1/29/19	2019-002	Nuclear Safety Capability Assessment – M-1177 LBIE 2019-001 Nuclear Safety Capability Assessment – M-1179 LBIE 2019-002

January
List of Documents Transmitted Electronically

		SAPN 50873211 LBIE 2019-003, FSAR ESF Non-Loop Delays
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E. CAP Documents (RCAs, ACEs, CAP Effectiveness Evaluations)

Type	Doc. No.	Title
RCAs		There are no RCAs for this month.
ACE	SAPN 51004632	DA-RMS Trend CCE Ineffective
Eff. Eval	SAPN 50973385	Effective Evaluation - 50947770
	SAPN 50984908	L162 Audit Exam Failures EE/QHSA
1/11/19		Condition Report Backlog Curves
1/18/19		Condition Report Backlog Curves
1/25/19		Condition Report Backlog Curves

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

Date	Doc. No.	Title
		There is no QPAR for this month.
1/22/19	FileNet #183390024	2019 Applied Technology Services Audit
		There is no new Schedule for this month.
2/5/19		Quality Digest; Information You Can Use; November 2018

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
2/12/19	SAPN 50976383	Benchmark on Video Training
2/12/19	SAPN 50955392	2017 Winter EPRI ESCP Conf. Trip Report
2/12/19	SAPN 50998518	Callaway Self-Assess/Infor. Benchmark
2/12/19	SAPN 51000277	Security Training Trip Report

January
List of Documents Transmitted Electronically

2/12/19	SAPN 51007195	FAC Program – November 2018 Trip Report
2/12/19	SAPN 51011004	Dec-18 SPI Working Meeting Trip Report
2/12/19	SAPN 50957978	2018 Mid-cycle assessment
2/12/19	SAPN 50976410	2018 NRC 71111.11 Self Assessment
2/12/19	SAPN 50933866	QH self-assessment – Security Efficiency
2/12/19	SAPN 50935784	QHSA – Causal Eval. W/Trng Solutions
2/12/19	SAPN 50948315	2017 Training Manager Meeting Trip Report
2/12/19	SAPN 5097449905	QHSA: Update Staffing Pipeline Doc
2/12/19	SAPN 50997110	Insulation/Coating Self-Assessment
		There are no Quick Hit Self-Assessments this month.

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

Date	Doc. No.	Title
5/3/18		Nuclear Generation Operating Plan 2018 – 2022, No new updates this month.
PPIR		There is no PPIR for this month.
Station Initiative	1/14/19	Maintenance Excellence Plan 2018; Our Path Forward
	2/6/19	Learning Services Excellence Plan 2019; Generating Excellence
IPM		There are no new IPMs this month.

J. INPO

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

K. Operational Documents (ODM Minutes, POAs)

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

January
List of Documents Transmitted Electronically

POA		There are no new POAs for this month.
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L. Safety Limit Violation Report

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

M. Significance Determination Process Calculations

Date	Doc. No.	Title
	NOED 18-01	AFW LCV 133
	NOED 18-03	PRA Evaluation for an extension of ASW Pump 1-1 MOW
	SDP 18-01	Failure of Unit 2 Interlock Valve SI-2-8974A

N. Miscellaneous

Date	Title
	There are no miscellaneous documents for this month.

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 201901	T+1 Performance Critique
	Week 201902	T+1 Performance Critique
	Week 201903	T+1 Performance Critique
	Week 201904	T+1 Performance Critique

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE	
AGENDA TRANSMITTAL FORM	
MEETING DATE:	October 25, 2018
AGENDA ITEM:	XXXII
AGENDA TITLE:	Committee Discussion of a Post-Shutdown Role, Engaging a Consultant, Considering Correspondence on Decommissioning, Considering an Invitation from the Diablo Canyon Decommissioning Panel to Attend the Panel's Public Meeting on March 13, 2019, and to Discus Future Opportunities for Cooperation with the Panel.
CONSENT [☐] ACTION [☒] INFORMATION [☒]	
Staff Summary: The Committee Members, Technical Consultants and Assistant Legal Counsel are expected to discuss defining and assessing the utility of a potential post-shutdown role for the DCISC to review issues associated with decommissioning the power plant following cessation of generation operations by expiration of its operating licenses from the NRC in 2024 and 2025. The Committee is also expected to discuss and consider engaging a consultant, on an <i>ad hoc</i> basis, to assist it in the identification of decommissioning-related issues; to review and discuss correspondence to and from the DCISC on decommissioning-related matters; to consider an invitation from the Diablo Canyon Decommissioning Panel to Attend and make a presentation at the Panel's public meeting on March 13, 2019; and to discuss future opportunities for cooperation with the Panel.	
RECOMMENDED COMMITTEE ACTION: provide direction as appropriate.	

DCISC Post-Shutdown Summary - DRAFT - 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.		
		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
	Areas for DCISC Review ↓	ISFSI Operational	ISFSI Operational	ISFSI Operational	
1	Health of Safety Systems	All Systems*	SFP-Related Systems	No	No
2	Health of Electrical and Other Supporting Systems	All Systems*	SFP-Related Systems	No	No
3	Operator Staffing, Training, and Licensing	Yes	Yes	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 DCCPP for Long-Term Storage or Disposal	No	No	No	No

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. 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
	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 Empty	Decommissioning Complete.
		Spent Fuel Pools Operational.	Spent Fuel Pools Operational.	Decommissioning in Progress.	ISFSI Operational and/or spent fuel being shipped from site
PROPOSED RECOMMENDATION CONCERNING DCISC REVIEW		Decommissioning beginning	Decommissioning in Progress	ISFSI Operational	
		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

From: Lauren Brown <lauren.brown@sbcglobal.net>
Sent: Tuesday, January 8, 2019 12:28 PM
To: info@dcisc.org
Cc: 'Chuck Anders'; dcdep@googlegroups.com
Subject: Release of Strategic Vision Document by the Diablo Canyon Decommissioning Engagement Panel
Attachments: DCDEP Report Press Release 1-8-19.pdf

Tuesday, January 8, 2019

To: Diablo Canyon Independent Safety Committee
Robert Rathie
Robert J. Budnitz, Ph.D.
Per F. Peterson, Ph.D.
Peter Lam, Ph.D.

Dear Bob,

As promised, we are forwarding to you links to the Strategic Vision Report prepared by the Diablo Canyon Decommissioning Engagement Panel (DCDEP). Today our Panel issued a press release announcing the availability of our Report that reflects the work done by our Panel during 2018 and the work that is planned for 2019. I am attaching that press release. For your convenience, I will also embed in my message to you the link that takes you directly to our Report: https://www.pge.com/pge_global/common/pdfs/safety/how-the-system-works/diablo-canyon-power-plant/diablo-canyon-power-plant/DCDEP-Strategic-Vision.pdf

You will note that we have planned for 2019 several meetings for which we would request input from the DCISC:

1. Two-day workshop on Spent Fuel Storage, February 22,23
2. Public meeting of the DCDEP on Spent Fuel Storage which will review content of the workshops and provide for additional public input, leading to recommendations from our Panel on this topic.
3. Engagement Panel Structure and Function Review, June 12. This is an opportunity for our panel to review strengths, weaknesses and opportunities to improve the Panel structure and function for the years ahead. We have already in 2018 started the process by receiving two proposals. One, written by Alex Karlin, recommends transitioning to a CPUC-funded and directed independent panel. The second, written by myself, recommends retaining the current structure associated with PG&E, while also examining ways to maximize our effectiveness. (There are links embedded in the Report to both of these two proposals.) Given your experience as a CPUC-associated independent safety committee, we would invite you to share with us any recommendations you might have regarding the future structure and function of a Panel.

I am now set up so that my communications to the DCISC will appear also on our Panel's website. So, in your replies, please include our group email address: dcdep@googlegroups.com

Chuck, could you be sure that communications from the DCISC email address (info@dcisc.org) are enabled so that everyone on the Panel will see the content of communications I have with the DCISC as our liaison with them.

Let me know if a representative from the DCISC can participate in the three events I mention above. If that is possible then we'll coordinate on more details as we go forward. I will also be publicizing your next public meeting on Feb. 13,14 and encouraging our members to attend.

Many thanks,

Lauren

Lauren R. Brown, Ph.D.
Member, DCDEP

February 11, 2019

President Michael Picker
Commissioners Aceves, Randolph, Rechtschaffen, and Shiroma
California Public Utilities Commission,
505 Van Ness Avenue
San Francisco, CA 94102

Subject: Request that Commission Halt Ultra Vires Expenditures and Actions by Diablo Canyon Independent Safety Committee Relating to Decommissioning

Dear President Picker and Commissioners

I respectfully request that the California Public Utilities Commission take prompt action to prevent the Diablo Canyon Independent Safety Committee (DCISC) from spending time, effort, and ratepayer money on activities that exceed its legal authority, i.e., on decommissioning. I submit this request as a retired Administrative Judge with the U.S. Nuclear Regulatory Commission, an individual who is a member of the Diablo Canyon Decommissioning Engagement Panel (but who is not speaking for the Panel), a resident of San Luis Obispo, and a ratepayer.

The DCISC charter limits its mission to operational issues, not decommissioning:

The [DCISC] shall review Diablo Canyon operations for the purpose of assessing the safety of operations and suggesting and recommendations for safe operations.¹

Federal law specifies that decommissioning constitutes the “cessation of operations” of a nuclear power plant.² Operations cease at decommissioning. Thus, the DCISC automatically sunsets when Diablo Canyon stops operating (2025). The DCISC is not authorized to address decommissioning. I reminded the DCISC of its charter during its meeting on October 25, 2018.

Despite this fact, the DCISC is now attempting to hire a new consultant to start covering decommissioning,³ and is starting to delve into decommissioning.⁴ This is not within its legal authority and is ultra vires.

Basically, DCISC is attempting to prolong its lifespan past 2025. Neither its charter, composition, knowledge, skills, nor experience⁵, enable the DCISC to monitor and oversee decommissioning in a way that best promotes the public interest.⁶

¹ CPUC D.88-12-083, App. C, Att. A, Section 1.1. (Emphasis added).

² 10 C.F.R. Section 50.82(a) (3).

³ The DCISC website states that it seeking to hire a technical consultant (who would be paid by the ratepayers) to “assist the Committee in the identification of decommissioning related activities.”

⁴ The DCISC website asks for public comment on its draft “DCISC Post-Shutdown Summary” which acknowledges that it addresses “Phases Following Cessation of Operations.” (Emphasis added).

⁵ According to the Commission’s charter for the DCISC, and to the Commission’s annual announcements when it hires new members, all DCISC members are selected for their “knowledge, skills and background in the safe operation of a nuclear power plant.” Operating a nuclear power plant is very different from

If this unilateral expansion of DCISC's mission occurs, it will likely cost PG&E ratepayers at least an additional 18 million dollars.⁷

I urge the Commission to act promptly to prevent the DCISC from hiring decommissioning technical consultants and from attempting to handle activities related to decommissioning.

Instead, the Commission should require the DCISC to desist from decommissioning activities until the Commission can conduct a ratemaking proceeding and decide whether, and how, to charter an independent advisory entity to monitor the decommissioning of Diablo Canyon.

Perhaps the two current Diablo Canyon ratemaking cases can serve as the vehicle for intelligently rationalizing the decommissioning situation. PG&E's general ratemaking case A. 18-12-009, which deals with operations, could be used to sunset the DCISC. PG&E's Nuclear Decommissioning Cost Triennial Proceeding, A. 18-12-008, which deals with decommissioning, could be used to create a new independent decommissioning advisory panel.

Instead of inadvertently blessing DCISC's expansion, and thus asking ratepayers to pay for a multiplicity of panels related to the decommissioning, the Commission should take this opportunity to review the entire situation thoughtfully and to charter an oversight entity with a mission and composition appropriate to the long and difficult task of decommissioning Diablo Canyon that lies ahead.

I would appreciate it if you could ask your staff to keep me informed of any Commission discussions or decisions concerning this matter.

Thank you.

Sincerely

Alex S. Karlin
askenvirolaw@gmail.com

cc: PG&E
DCISC

decommissioning one. The members of the DCISC were not hired for, nor does the record to show that they possess "knowledge, skills or background" in decommissioning.

⁶ The DCISC is composed of 3 outsider who do not represent State or local stakeholders and who lack expertise in decommissioning. The DCISC is not a suitable entity to serve as community advisory board on the topic of decommissioning. See my January 10, 2019, letter to President Picker and the Commissioners regarding the need for an independent decommissioning advisory board.

⁷ DCISC currently costs ratepayers approximately \$900,000 per year. Given that the decommissioning of Diablo Canyon is likely to take 20 years or more after 2025, allowing the DCISC to add decommissioning to its mission will cost ratepayers an 18 million dollars for an entity not designed to handle this task.