

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

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

* * * * *

Wednesday & Thursday
October 24-25, 2018
Avila Lighthouse Suites

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

PUBLIC TOUR

Public Tour - 10/24/2018 - 8:00 A.M.

PUBLIC TOUR OF DIABLO CANYON NUCLEAR POWER PLANT ("DCPP")
TO ASSEMBLE AT THE PG&E ENERGY EDUCATION CENTER
(Prior registration and security clearance required of all public participants)

The Members of the Diablo Canyon Independent Safety Committee (DCISC),
accompanied by members of the public, will conduct a tour of the Plant.

Following the tour, or in the alternative if the tour must be cancelled for any reason,
the committee may convene an informal question and answer session at the PG&E
Energy Education Center, 6588 Ontario Road, San Luis Obispo.

CONCLUDE PUBLIC TOUR

PUBLIC MEETING AGENDA

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

Afternoon Session - 10/24/2018 - 1:15 P.M.

I CALL TO ORDER - ROLL CALL

II INTRODUCTIONS

III PUBLIC COMMENTS AND COMMUNICATIONS

Anyone wishing to address the Committee on matters not appearing on the Agenda may do so only at this time. The public may comment on any matter listed on the Agenda immediately following the time the matter is considered by the Committee. *There will be a time limit established by the Presiding Officer for each speaker. No action will be taken by the Committee on matters brought up under this item but they may be referred to staff for further study, response or action. (Please Note: (a) The Committee may consider at any time requests to change the order of a listed agenda item; (b) Information distributed to the Committee at a public meeting becomes part of the public record of the DCISC. A copy of written material, pictures, etc. must be provided to the Committee's Legal Counsel for this purpose.)*

IV CONSENT AGENDA

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

- A. Minutes of June 13-14, 2018, Meeting: Approve

V ACTION ITEMS

- A. DCISC 28th Annual Report on Safety of Diablo Canyon Operations; July 1, 2017 – June 30, 2018 Discussion/Approval
- B. Update on Financial Matters and Committee Activities during 2018-2019 Discussion/Action
- C. Discussion of Open Items List Discussion/Action

VI INFORMATION ITEMS BEFORE THE COMMITTEE

- A. Informational Presentations Requested by the Committee
- 1) Brief Remarks on Reactor Decommissioning & Proposed Changes to Decommissioning Regulations
Mr. Bruce Watson
Chief, NRC Reactor Decommissioning Branch

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
- B. Documents Provided to the Committee

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

- A. Ferman Wardell:
Fact-finding Topics; Reports on and Approval of July 10-11, 2018 Fact Finding Report
- B. Consultant Richard D. McWhorter Jr.:
Fact-finding Topics; Report on and Approval of August 22-23, 2018 Fact Finding Report
- C. Robert Wellington
Administrative, Regulatory and Legal Matters

IX ADJOURN AFTERNOON MEETING

Morning Session - 10/25/2018 - 8:30 A.M.

X RECONVENE FOR MORNING MEETING

XI COMMITTEE MEMBER COMMENTS

XII 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.*

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

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

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

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

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

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

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

XIV ADJOURN MORNING MEETING

Afternoon Session - 10/25/2018 - 1:00 P.M.

XV RECONVENE FOR AFTERNOON MEETING

XVI COMMITTEE MEMBER COMMENTS

XVII 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.*

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

- C. Informational Presentations Requested by the Committee of PG&E Representatives
- 3) Update on the Status of NRC Performance Indicators, Licensee Event Reports, NRC Notices of Violations and Issues Raised by NRC Inspectors
- 4) Update on Nuclear Safety Culture, Safety Conscious Work Environment and Employee Concerns Program

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

- D. Ferman Wardell:
Fact-finding Topics; Reports on and Approval of September 5-6, 2018 Fact Finding Report

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

- A. Future Actions by the Committee
- B. Discussion and Possible Direction re a Future Role for DCISC After Expiration of Operating Licenses for DCPD Including Possible Engagement, on an *Ad Hoc* Basis, of a Consultant to Assist in Identification of Decommissioning-related Issues
- C. Further Information to Obtain/Review
- D. Scheduling of Future Site Visits, Study Sessions and Meetings

XXI ADJOURNMENT OF NINETY-FIRST PUBLIC MEETING

The DCISC's policy is to schedule its public meetings in locations that are accessible to people with disabilities. The Avila Lighthouse Suites Point San Luis Conference Facility is a wheelchair accessible facility. A person who needs a disability-related accommodation or modification in order to participate in the meeting may make a request by contacting the DCISC office at (800) 439-4688 or by sending a written request to the DCISC office at 857 Cass Street, Ste. D., Monterey, CA 93940. Providing your request at least five business days before the meeting will help ensure availability of the requested accommodation.

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

MEETING DATE:	October 24, 2018
AGENDA ITEM:	IV-A
AGENDA TITLE:	Minutes of June 13-14, 2018, Public Meeting

CONSENT [X] ACTION [] INFORMATION []

Staff Summary: Attached are the Minutes which have been prepared from the Committee's ninetieth public meeting held on June 13-14, 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: Approve the Minutes by motion

MINUTES
of the
DIABLO CANYON INDEPENDENT SAFETY COMMITTEE'S
June 13-14, 2018, PUBLIC MEETING
[For approval at the October 24, 2018 Public Meeting]

Wednesday & Thursday
June 13-14, 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, June 13, 2018, the Members of the Diablo Canyon Independent Safety Committee (DCISC), together with Committee Technical Consultant Mr. McWhorter, accompanied by 32 members of the public, participated in a tour of Diablo Canyon Power Plant (DCPP). The members of the public responded to the advertisement concerning the public tour placed in a local area newspaper and on the DCISC's website. The group assembled in the PG&E Energy Center auditorium for a brief introduction of the DCISC and its Members and Technical Consultants and a discussion of the appointment of its members and the operations of the Committee and to view an informational video on the history, role and responsibilities of the Committee. Afterward, DCPP Lead Manager for Government Relations, Ms. Suzanne Hosn, and Communications Representative, Mr. John Lindsay, gave informational presentations about the plant and Pacific Gas & Electric Company's (PG&E) current energy generation portfolio and its plans for its future. 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 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 Mr. McWhorter visited, in turn, the DCPP Fire Department and the FLEX¹ Storage Facility and 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.

¹ FLEX is not an acronym but describes a strategy developed by the nuclear industry to provide diverse and flexible coping strategies to address the loss of safety-related systems due to beyond design basis events.

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

CONCLUDE PUBLIC TOUR

Agenda

I CALL TO ORDER - ROLL CALL

The June 13, 2017, public meeting of the Diablo Canyon Independent Safety Committee, the ninetieth meeting of the DCISC, was called to order by Committee Chair, Dr. Peter Lam, at 1:35 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. Lam welcomed those present in the room, introduced himself and reviewed briefly his tenure as Chair of the DCISC and briefly reviewed the appointment to the DCISC by officials of the State of California and the professional backgrounds of those of each of his fellow Members, Dr. Per F. Peterson, the appointee of the Governor, and Dr. Robert J. Budnitz, the appointee of the California Attorney General. Dr. Lam serves on the Committee as the appointee of the California Energy Commission (CEC). The Chair then introduced and briefly described the professional background of each the Committee's Technical Consultants, Mr. R. Ferman Wardell, P.E. and Mr. Richard D. McWhorter Jr. and introduced Assistant Legal Counsel Robert W. Rathie. Dr. Lam 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. Lam reported Mr. Garcia also ably serves as the principal liaison and point of contact for the Committee with PG&E and DCPD. Dr. Budnitz reviewed Dr. Lam's professional background and Dr. Lam's recent reappointment to a fourth three-year term on the DCISC. Dr. Lam thanked Dr. Budnitz and introduced and welcomed his spouse of 52 years, Mrs. Mabel Lam, who was present in the audience for this public meeting.

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.

Dr. Gene Nelson, government liaison and legal assistant for Californians for Green Nuclear Power was recognized. Dr. Nelson expressed his thanks to the Committee for the Committee having accepted Dr. Nelson request that mention be included in the Committee's

letter to the office of State Senator Monning regarding California Senate Bill 1090 (SB 1090) concerning the California Public Utilities Commission's (CPUC) Decision 18-01-022 which provides for and requires the retirement of DCP by the end of the plant's current operating licenses from the Nuclear Regulatory Commission (NRC), that is, by 2025. The Committee Members having expressed their support for SB 1090 as to its effect on the DCP Employee Retention Program in a letter approved at a public meeting held in Berkeley, California on May 22, 2018. In the letter the Committee Members agreed to include reference to the Application for Rehearing of D.18-01-022 filed by Californians for Green Nuclear Power and that therefore the Decision, although now in full force and effect, was not yet considered final.

Dr. Lam thanked Dr. Nelson for his comments.

IV CONSENT AGENDA

The first item on the Consent Agenda was approval of the Minutes of the Committee's February 7-8, 2018 public meeting held in Avila Beach, California. The Members and Technical Consultants reviewed the draft of the February 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 the Assistant 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 February 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.

During review of the Minutes, Dr. Justin Cochran, Senior Nuclear Policy Advisor to the CEC was recognized. Dr. Cochran confirmed that in accordance with a commitment Dr. Cochran made at the February 2018 DCISC public meeting, in his capacity as California Energy Commission (CEC) Emergency Coordinator he provided information in the reports reviewed by the DCISC concerning tsunami hazard and mitigation and planning for a tsunami on the California coastline to representatives of the California Office of Emergency Services, Planning Division.

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

The second item on the Consent Agenda was approval of the Minutes of the Committee's May 22, 2018 public meeting held in Berkeley, California. The Members and Consultants reviewed the draft of the May 2018 Minutes provided with the agenda packet for this meeting. Items were discussed and reviewed for follow up or future action and clarification was provided to the Committee's Assistant Legal Counsel concerning certain references in the draft Minutes and regarding typographical or editorial corrections, as well as concerning substantive revision to be made to the final version of the May 2018 Minutes which will become part of the DCISC's 28th Annual Report. Dr. Lam remarked the public meeting was held in Berkeley, California and

not in the San Luis Obispo area as the issue reviewed during the meeting concerned a matter of importance to the Committee which required prompt and timely action.

Dr. Nelson was recognized and again thanked the Committee Members for their consideration of his comments at the May 2018 public meeting.

Ms. Sherry Lewis, representing San Luis Obispo Mothers for Peace (Mothers for Peace) was recognized. Dr. Lam explained in response to Ms. Lewis' inquiry that the Committee's letter to Senator Monning's office concerning SB 1090 was in support of revising certain elements of Decision 18--01-022 which addressed the funding for the DCPPE Employee Retention Program and the issue required that action be taken before this meeting, the next regularly scheduled meeting of the Committee in the San Luis Obispo area.

On a motion by Dr. Peterson, seconded by Dr. Budnitz the Minutes of the Committee's May 2018 public meeting were accepted as amended, subject to inclusion of the revisions discussed and changes provided to its Assistant Legal Counsel.

V ACTION ITEMS

A. Update on Financial Matters and Committee Activities. The Chair requested Assistant Legal Counsel Rathie to provide this report. Mr. Rathie reported that the Committee sent its letter in support of the restoration of full funding for the Employee Retention Program to Senator Monning's office and a copy of the letter was included in the public agenda packet for this meeting. He reported the Committee completed calendar year 2017 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 2017 should be returned by the Committee for credit to the ratepayers. On a motion made by Dr. Budnitz, seconded by Dr. Peterson, the Committee unanimously approved return of unspent grant funds from its calendar year 2017 operations to PG&E for credit to its ratepayers.

Mr. Rathie reported two payments have been received for calendar year 2018 operations from the funds provided as a grant for Committee operations and based on expenditures made to date, the Committee should also complete its calendar year 2018 operations within the amount provided under CPUC Decision 04-05-055. He observed a list of planned activities for the remainder of 2018 and for 2019 prepared by Mr. Wardell was included in the agenda packet for the meeting. Mr. Rathie reported that the Committee's accountant has been directed to pay the retainers provided by the DCISC's Restated Charter from the CPUC to all members as they are all currently serving within appointed terms.

B. Discussion of Issues on Open Items List: Dr. Lam 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 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 represent 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 following²:

<u>Item</u>	<u>Re:</u>	<u>Action Taken/Next Action</u>
CM-14	Use & plans for wireless technology within the Power Block	Move to Equipment Reliability (ER) add performance monitoring and data storage aspects
EP-2	Emergency drills/exercises	Add NRC-evaluated exercise on 10/24/18; BB & RDM to observe on 10/24 AM; review re public able to access Simulator observation room & DCPD re review videotaping the Simulator activity during exercise
RA-6 & RA-7	Seismic Fragility Analysis & Seismic PRA review	Merge items
RP-12	Radiological Release Report	Make next action 7/18
SEC-3	Security-safety interaction	Create item SEC-4 for cybersecurity
		Make next action SEC-3 2Q20FF
		Make next action SEC-4 2Q19
SF-2	Cask & pool fuel storage	Create item SF-3 re review seismic adequacy of ISFSI in context of ISFSI license renewal in 2021
		Make next action 2018 FF/RJB
DEC-3	Decommissioning-DCISC role	Make next action annually
6/17 PM-2	Westinghouse Report on GSI-191	Close after 7/18FF
2/18 PM-2	Share tsunami & LIP analysis	Close
2/18 PM-5	ISFSI cask inspections	Close (covered by SF-2)
2/18 PM-17	Share tsunami/hazard mitigation w/OES	Close

During discussion of item EP-2 Ms. Lewis and Dr. Nelson were recognized and both expressed support for the public possibly being permitted to observe the October 24, 2018 NRC-evaluated emergency exercise. Dr. Nelson commended PG&E for its efforts to create defense-in-depth for the DCPD Independent Spent Fuel Storage Installation (ISFSI). During discussion on the Open Items List certain items identified by Mr. Wardell as suitable for closure and deletion from future open items lists were confirmed.

Following the discussion on the Open Items List the Chair called for public comments. There were no comments by members of the public at this time.

² 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).

C. Nomination and Election of Chair and Vice Chair for the July 1, 2018 - June 30, 2019 Term. On a motion made by Dr. Peterson, seconded by Dr. Lam, the Committee elected Dr. Budnitz to the position of DCISC Chair and, on motion by Dr. Budnitz, seconded by Dr. Lam, Dr. Peterson was elected to the position of DCISC Vice-Chair for respective terms of office from July 1, 2018 through June 30, 2019.

D. Consider Adoption of a Revision to Committee Policy #2 “Accounting Procedures” Regarding Electronic Deposits & Payments. Assistant Legal Counsel Rathie explained the proposed revision would enable the Committee’s accountant to process direct electronic deposit payments to those individuals who elected in advance to use that method. This procedure would augment and would not replace the present requirement for two-party signature checks and approval by (1) the DCISC Chair or Vice-Chair and (2) the Committee’s accountant would continue to be required for all payments and a system of encrypted data would be used for electronic approval of direct deposit payments.

Mr. Shane Werner, a principal of accounting firm of Martin Ketterling & Associates of Ventura, California, the Committee’s accountant, confirmed that electronic payment would retain the internal controls now in place and would include use of the automated clearing house to process payments.

On a motion made by Dr. Budnitz, seconded by Dr. Peterson, the Committee unanimously approved amending Committee Policy #2 to provide for electronic processing of deposits for payment and delegated implementation of the process to the DCISC Chair and Legal Counsel’s office.

A short break followed

VI COMMITTEE MEMBER REPORTS AND DISCUSSION

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

The Members turned to the matter of confirming and scheduling public meetings of the DCISC. Public meetings are now scheduled for October 24-25, 2018, February 13-14 and June 5-6, 2019 (the original date for the June 2019 having been changed at this public meeting from June 19-20) and the Members then scheduled a future public meeting of the Committee for October 23-24, 2019. Based on information received by Consultant McWhorter, the Committee committed to conduct a tour with members of the public in conjunction with its October 2018 public meeting.

Fact-finding visits were confirmed and scheduled as follows³:

[2018] July 10-11 PFP/RFW; August 22-23 PL/RDM; September 5-6 RJB/RFW; November 7-8 RJB/RDM; December 12-13 PFP/RFW; and

³ Abbreviations used: Robert J. Budnitz (RJB); Peter Lam (PL); Richard D. McWhorter (RDM); Per F. Peterson (PFP); R. Ferman Wardell (RFW)

[2019] January 23-24 PL/RDM; March 18-19 RJB/RFW; April 17-18 PL/RDM; May 8-9 PFP/RFW; July 16-17 PFP/RDM; August 21-22 PL/RFW; September 10-11 RJB/RDM.

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: Dr. Lam remarked that the DCISC conducts its business in a transparent manner and most documents received by the Committee are matters of public record. Mr. Rathie directed the Committee's attention to the list of documents received since its last public meeting in February 2018. A copy of the list was included with the public agenda packet for this meeting.

Ms. Rochelle Becker, Executive Director of the Alliance for Nuclear Responsibility was recognized. Ms. Becker stated that she finds the letter from the Committee to State Senator Monning's office, wherein the Committee expresses its support for full funding for the DCPD Employee Retention Program, to be unacceptable. Ms. Becker stated that 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 required support for all of the Joint Proposal's components and those components were not fully implemented by CPUC in its Decision 18-01-022 which approved PG&E's Application for adoption of the Joint Proposal. The components not adopted or fully implemented by the CPUC in Decision 18-01-022 include the Commission not approving full funding for the Employee Retention Program in the amount sought by PG&E in its Application, rejecting funding sought in the Application for the Community Impacts Mitigation Program, and the Decision declining to address the replacement of DCPD's generation capacity including imposing a binding requirement that DCPD's generation output be replaced by zero greenhouse gas emitting sources. Ms. Becker stated that all the components rejected by the CPUC in D.18-01-022 are integral to form the basis for the rationale behind the Joint Proposal and for the DCISC to express its support for one (full funding for the Employee Retention Program) but not the others could be detrimental to and hinder the chances that SB 1090 will receive approval from the California legislature. Ms. Becker opined that all components must receive legislative approval or she fears that none of them will. Ms. Becker asked the Committee to rescind and to withdraw its letter.

Dr. Peterson responded the Committee judged retention of DCPD employees to be relevant to operational safety of the power plant and within the Committee's mandate from the CPUC to review operational safety and make recommendation and **the Committee also considered the impact of the 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.** Accordingly, the Decision's impact on operational safety was judged to be the need to provide adequate retention bonuses to DCPD's workforce. Dr. Budnitz stated the other issues discussed by Ms. Becker were outside the DCISC's scope of review and the position of the parties to the Joint Proposal is not relevant to the Committee's assessment of the impact on operational safety. Dr. Peterson remarked he did not believe that the Committee's letter in support of one element would logically hurt the chances of SB 1090 passing. Dr. Lam stated he was sympathetic to Ms.

Becker's argument but it was his belief the letter adequately explained why the Committee was not able to support all elements of SB 1090. Dr. Budnitz observed that withdrawing the letter would be illogical as the Committee considered and found that if the retention bonuses were not increased, significant attrition of key plant staff is likely to occur to a greater degree than would otherwise be the case, particularly during the second tranche of the retention incentive program. Dr. Peterson expressed his view that, given the Committee's assessment of the importance of the retention bonuses on plant safety, it would be not be ethical for the Committee to withdraw its letter for reasons based upon political expediency. Dr. Lam observed he believed Ms. Becker to be stating that the DCISC's letter would damage the chances of SB 1090 in the legislative arena. Dr. Peterson stated it would be dishonest for the Committee not to express its opinion on the sole issue within its purview as it is his understanding the legislature is the only body with the authority and capability to address the problem perceived by the DCISC. Dr. Budnitz agreed that the Committee not articulating its opinion on this matter would be irresponsible.

In response to Ms. Becker's entreaties to rescind the letter, Dr. Budnitz thanked Ms. Becker for bringing her concerns to the Committee but he stated that in its letter the Committee was careful not to endorse the SB 1090 in full but to call attention to the restoration of full funding for the Employee Retention Program, while recognizing the DCISC is not in a position to design that program in detail, and in that regard the Committee recognizes certain employees have roles that are more vital to plant safety than others.

Dr. Lam suggested that the Committee take Ms. Becker's comments under advisement and enter them in the public record. Dr. Budnitz replied that the Committee should conduct its debate of the issue at this time. Assistant Legal Counsel Rathie pointed out that as this matter was not on the agenda for this public meeting, accordingly comments must be brief and substantive action is not permitted to be taken on any item not on the agenda. Dr. Budnitz requested that the Members consider calling a meeting to put the matter of rescinding the Committee's letter in support of SB 1090 on a public agenda. Drs. Lam and Peterson both expressed their opposition to the Committee holding a public meeting for the purpose described by Dr. Budnitz.

Mr. David Weisman of the A4NR was recognized. Ms. Weisman stated, with reference to the discussion at the DCISC public meeting on May 22, 2018, that insufficient consideration was given to a possible nexus between other elements, aside from the Employee Retention Program, and safety such that a reduction in funding for the County due to Decision 18-01-022 having rejected the Community Impacts Mitigation Program and this will likely have an effect on local area infrastructure such that emergency response capabilities will be affected. Mr. Weisman stated a fuller understanding of these and other impacts might have led the DCISC to a different conclusion. Dr. Budnitz reported it is his understanding the NRC will continue to assess and ensure emergency capabilities do not fall below acceptable levels. Mr. Weisman agreed but responded that, to the extent of local roads, that responsibility falls to the Federal Emergency Management Agency (FEMA) and FEMA is then able to delegate the responsibility for road repair to the County and there is a finite pool of resources from which the County may draw to repair roads necessary to ensure the access to DCPD is unimpeded and this means that something else must await funding thereby creating a ripple effect which could ultimately have an impact on the attrition of the DCPD workforce.

Dr. Budnitz requested, with the concurrence of the Chair, that Agenda Item VI-A concerning scheduling of future meetings be reopened for the purpose of considering the scheduling of a public meeting two weeks hence to consider rescinding the Committee's letter in support of SB 1090. After a brief discussion, the consensus of the Membership of the DCISC was that the next meeting of the Committee should be the regular and previously scheduled meeting now set for October 24-25, 2018.

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

The Chair requested Consultant McWhorter to report on a fact-finding visit to DCP. Mr. McWhorter reported on the March 7-8, 2018 fact-finding visit to DCP with Dr. Budnitz. Mr. McWhorter stated activities conducted and topics reviewed with PG&E during that visit included the following:

- Meeting with NRC Senior Resident Inspector - the DCISC fact-finding team (FFT) met with the NRC Senior Resident Inspector to discuss activities during refueling outage 2R20 and the impact of the Joint Proposal on DCP performance. No evidence of performance degradation has been found to the date of the fact-finding.
- Software Quality Assurance (QA) Programs - these programs are managed by the DCP Digital Systems Group, a part of the Engineering organization, to monitor and oversee software configuration management for individual plant equipment and control systems. Each system's software is managed by a software QA plan and if a change is required it is governed by a design change package. Verification of changes is accomplished through the use of a development system which is similar to, but operates outside of, the plant's system to ensure there is no adverse impact on plant systems prior to verification. Business-related software, such as Excel, is managed separately from plant process software and a QA plan is in place for business-related software that is used in a function important to safety or safety-related systems. Mr. McWhorter reported the FFT found the Software Quality Assurance Program was comprehensive and designed to ensure computer software used in the plant is developed and maintained in a controlled fashion.
- Non-Containment Outage Work Tour - as the March 2018 fact-finding visit occurred during the 2R20 refueling outage, the FFT toured the Outage Control Center, the Turbine Building, the Control Room, the Auxiliary Building and the Fuel Handling Building. Mr. McWhorter displayed a chart used in the Outage Control Center to assess the critical path and work flow for the outage. At the time of the visit the reactor head was in place on the vessel and the studs were being installed and prepared for tensioning. The FFT reviewed preparations for the 10-year Containment Integrated Leak Rate Test with Mr. Garcia who was the coordinator for that test which uses 16 air compressors to pressurize Containment to 45 pounds per square inch (psi). Mr. McWhorter reported the test was subsequently successfully completed. The FFT concluded the outage work was proceeding in a controlled, professional manner with careful preplanning and management.
- Nitrogen Leak in Containment - the DCISC representatives reviewed the nitrogen leak in Unit-2 Containment that, on July 17, 2017, resulted in an Alert being declared by DCP due to a

reduction in oxygen content in Containment resulting in Containment becoming a hazardous environment for personnel entry. The leak resulted from the backup nitrogen system which serves the three power operated relief valves in the pressurizer used to manage pressurizer level and prevent over pressurization or reestablish pressure if necessary. These valves are normally powered by air systems with the nitrogen system serving as a backup but which must be capable of 300 cycles during a potential accident scenario. A small leak on a relief valve on the nitrogen system was allowed to continue for approximately 18 months and over that time released enough nitrogen to cause the Alert. Procedures have been changed and standards put in place to improve the daily review and prioritization of repair work for abnormal plant conditions. Mr. McWhorter opined that this was not the type of event for which an Alert should be required to be called, and with regular and more frequent tracking of containment atmosphere and this should preclude future activation of the Emergency Plan for this situation. The FFT concluded the corrective actions were appropriate.

➤ 2018 Operating Plan - at the time of the fact-finding visit, the Operating Plan was being vetted for specific initiatives and to detail key work plans, initiatives and metrics to measure success for the 2018 key focus areas. A station alignment workshop on the Operating Plan was to be scheduled. **The FFT concluded the Operating Plan contained the appropriate focus on initiatives and key metrics and the DCISC should continue to monitor the Operating Plan in the future.**

➤ Containment Outage Work Tour - The DCISC FFT toured work in Containment and Mr. McWhorter stated the group was able to move around without impediment and only very limited areas inside Containment were restricted due to radioactivity levels. The team visited all levels of Containment and found the work to be well planned, coordinated, controlled and executed. Dr. Budnitz remarked the team did not observe any interference between the various groups then conducting work in Containment and this included the area around the Containment equipment hatch where equipment was being moved in to and out of Containment.

➤ Decommissioning Process - FFT met with Mr. Jon Franke, PG&E Vice President Power Generation, to review decommissioning planning. At the time of their visit the composition of the Diablo Canyon Decommissioning Engagement Panel was in the selection process. Mr. McWhorter reported the Decommissioning Engagement Panel subsequently held its first meeting in May 2018. Decommissioning funding options were reviewed and Mr. McWhorter reported the funds from the Nuclear Decommissioning Trust are primarily set aside for radiological decontamination but are not intended to provide full funding for returning the site to “green field” status. Accordingly, PG&E will need to seek additional funding from the CPUC. Mr. McWhorter reported the 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. Budnitz reported that the plant will be required to classify all items and under the Executive Order the nonradioactive materials will need to be transported outside of California. Dr. Budnitz remarked this is an area outside the NRC’s concern. **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.** Mr. McWhorter stated the FFT

also discussed with Mr. Franke the transition from the plant's current operation under a 10 CFR Part 50 License for power generation operation and a Part 72 license for storage of spent fuel to only a Part 72 license. He reported this the transition will occur through a series of license amendments to the Part 50 License. The FFT concluded the decommissioning plans continue to be developed.

➤ Employee Retention Programs - the DCISC representatives met with Mr. Jim Welsch, PG&E Vice President and Chief Nuclear Officer to discuss the potential impact on the Employee Retention Program from the Proposed Decision on the Joint Proposal which recommended a reduction in funding for the Employee Retention Program. Employees will be offered the opportunity and, in order to participate in the reduced incentive program be required to sign new agreements and while the proposed change is not believed to have a great impact during the first tranche of the retention program, the second tranche which follows may be significantly impacted by a reduction in the retention incentive. **Mr. McWhorter reported the FFT concluded the DCISC should continue to monitor the effectiveness of the Employee Retention Program.**

➤ Meet with DCPD Officer - Dr. Budnitz met with Mr. Welsch.

➤ Human Performance Data Inclusion into Probabilistic Risk Assessments (PRA) - Mr. McWhorter reported the FFT found the plant's PRA Program uses data developed from national standards to employ techniques for human error rate prediction methodology. Generally, there is insufficient DCPD-specific data on human performance to inform the PRA, although there are a few points where the PRA has been modified for plant-specific data. The DCISC team found the plant's use of human reliability analyses in the PRA to be appropriate.

Following Mr. McWhorter's report, Ms. Rochelle Becker of the Alliance for Nuclear Responsibility was recognized. Mr. Becker suggested that the Committee obtain a copy of the Executive Order governing disposal of materials from nuclear power plants and she remarked there are examples of the movement of nuclear fuel around California.

Upon a motion by Dr. Budnitz, seconded by Dr. Lam, the March 7-8, 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 Wardell to report on a fact-finding visit to DCPD. Mr. Wardell reported on the April 17-18, 2018 fact-finding visit to DCPD with Dr. Peterson. Mr. Wardell stated topics reviewed with PG&E during that visit included the following:

➤ 4kV System Review and Walkdown with System Engineer - Mr. Wardell reported the 4kV System is a safety-related system that provides power for both vital and non vital equipment. It is powered from multiple sources, normally from the main generator when the plant is operating but may also be powered by the 230kV and 500kV off site systems as well as

by the emergency diesel generators. The 4kV System is presently rated in White status⁴ due to a potential energy line break which could introduce steam into one of the equipment rooms. When planned changes are made to the dampers leading into that room, the system will return to Green status. The FFT walkdown the system with the system engineer and found it well designed, operating properly and to be in good condition. The system engineer was very knowledgeable and proactive concerning the 4kV System.

- Refueling Outage 2R20 Results - as there is a schedule presentation on the 2R20 refueling outage, Mr. Wardell stated he would not further discuss what he described as a very successful refueling outage.
- Leadership Engagement in the Performance Improvement Process - the Performance Improvement Process (which was formerly termed a “Program”) includes the Corrective Action Program, benchmarking, self-assessment, and the Operating Experience Program as component parts. The plant is developing expectations for recognition by the management team when performance is less than desired and has characterized this effort as augmented leadership engagement. Mr. Wardell reported the DCISC team found this to be appropriate as it will help improve station performance.
- Online Maintenance - Mr. Wardell reported the FFT review concerned maintenance performed during generation operations when equipment is taken out of service for maintenance. A risk assessment is performed using the Phoenix Risk Model, an advanced, semi-quantitative, structured and controlled modeling procedure to minimize risk.
- Reactivity Management - Mr. Wardell described reactivity as the measure of the changes in the neutron levels to indicate when the reactor is increasing, decreasing or maintaining the same power level. Reactivity control is control of the reactor itself and at DCPD the prime responsibility lies with the Operations shift manager assisted by the Reactor Engineering organization and the Reactivity Management Leadership Team. Mr. Wardell reported the program is in Green status and well designed and implemented with appropriate controls.
- Boric Acid Control - Mr. Wardell reported boric acid is used for long-term slowing of reactivity, as boron absorbs neutrons and by adjusting the amount of boric acid in the Reactor Coolant System reactivity in the nuclear core is affected. Occasionally, he reported, there are leaks of boric acid which can damage and corrode carbon steel. These leaks must be monitored and controlled and DCPD tracks each leak whether it is wet or dry. The DCISC representatives found the Boric Acid Control Program to be effective and in good health.
- Meeting with NRC Senior Resident Inspector - the DCISC representatives discussed matters of mutual interest with the NRC Senior Resident Inspector.

⁴ 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.

- Meeting with Senior Director of Nuclear Technical Services - Dr. Lam met with Mr. Jan Nimick, Senior Director of Nuclear Technical Services, to discuss items reviewed during the fact-finding and of mutual interest.
- Control Room Ventilation System - Mr. Wardell stated this system provides a comfortable environment and protects operators in the Control Room from contaminants such as gas or radioactivity. In 2013 the system was found to experience some in-leakage and short-term fixes were applied and a major reanalysis was undertaken and long-term fixes identified in that reanalysis have now been completed. **Mr. Wardell stated the DCISC can remove this topic as a special issue but should retain review of the system as a periodic item on the Open Items List.**
- Quality Verification (QV) Assessment of Refueling Outage 2R20 - the FFT reviewed QV's assessment of activities during 2R20 and found QV's review of the Operations and Maintenance organizations and all departments reviewed to be complete with **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.

Following Mr. Wardell's presentation, Ms. Sherry Lewis of Mothers for Peace was recognized. In response to Ms. Lewis' inquiry concerning how many licensed operators have left employment at DCP, Mr. Wardell responded that while he did not have a precise number the total was not enough to raise a concern on the part of the FFT. He reported DCP has initiated operator training classes and has compiled a lengthy list of applicants for the training program from which to choose. In response to Ms. Lewis' further inquiry, Mr. Wardell and Dr. Budnitz reported it takes approximately 30 months to train a new operator to qualify for a license from the NRC.

Upon a motion by Dr. Budnitz, seconded by Dr. Peterson, the April 17-18, 2018 Fact Finding Report was approved and its transmittal to PG&E authorized.

The Chair requested Assistant Legal Counsel Rathie to report on administrative, regulatory and legal matters. Mr. Rathie reported that upon direction of the Committee Dr. David Victor, the Chair of the San Onofre Decommissioning Community Engagement Panel, was invited to attend this meeting but because of scheduling conflicts Dr. Victor's appearance has been postponed until the October 2018 public meeting. Mr. Rathie then thanked Mr. David Weisman at whose suggestion the Committee extended its invitation to Dr. Victor. Mr. Rathie reported the Committee has now begun the process of developing its 28th Annual Report on the Safety of Diablo Canyon Nuclear Power Plant Operations for the period July 1, 2017-June 30, 2018 and that report is expected to be ready for approval at the October 2018 public meeting. He remarked that the informational video produced as a part of the Committee's public outreach effort has now been shown twice and will be further developed to be available for use with the DCISC public tours and on the Committee's website. Concerning traffic on the DCISC website, he reported www.dcisc.org has averaged 996 unique visits each month for the first five months of 2018. The countries generating the most visits were the United States, Canada, Japan, Poland and the Russian Federation.

Mr. Rathie congratulated Dr. Lam on his recent reappointment to a three-year term on the DCISC by the California Energy Commission and observed that as all Members are now serving within their respective appointed terms, all Members will receive payment of the retainer provided for by the CPUC during this July.

Mr. Rathie reported the Committee held a public meeting on May 22, 2018 in Berkeley and approved a letter in support of SB 1090. He reported that the legislation has now passed out of the California Senate and is pending consideration in the California Assembly.

VIII ADJOURN AFTERNOON MEETING

The Chair adjourned the morning meeting of the DCISC at 5:20 P.M.

IX RECONVENE FOR EVENING MEETING

Dr. Lam reconvened the afternoon meeting of the DCISC at 5:35 P.M. and welcomed those present.

X COMMITTEE MEMBER COMMENTS

Dr. Peterson recognized and introduced his son, Lucas Peterson, who was present in the audience for this public meeting.

XI PUBLIC COMMENTS AND COMMUNICATIONS

Mr. Ray Lutz was recognized to address the Committee. Mr. Lutz stated he was representing the group Citizens' Oversight and in his remarks he would address that group's HELMS Proposal. He commented Citizen's Oversight has to date been principally involved with the San Onofre Nuclear Generating Station's (SONGS) decommissioning and the issue of nuclear waste. He reported that SONGS owner, Southern California Edison, recently agreed to a settlement to study moving the spent fuel from the SONGS to another location. Mr. Lutz reported he has an engineering background and it was the debate over thick versus thin walled spent fuel storage canisters which prompted his concern about how long the canisters might last and whether they are or will be subject to stress corrosion cracking. He remarked that his group did not want to see a transfer of problems with the canisters to another location.

In explaining the meaning of HELMS, an acronym, Mr. Lutz stated the "S" represents surface storage, as it is the Citizen's Oversight group's opinion that the canisters must be stored on the surface for approximately 100-200 years. The "H" stands for hardened facilities to make the canisters immune to terrorist actions. The "E" stands for extended life, meaning that the 40-year license term provided by the NRC is inadequate and the goal should be a life of 1,000 years with maintenance and 300 years of passive lifetime. The HELMS Proposal would enclose the existing canisters in an additional outer shell and introduced pressurized helium between the inner canister and outer shell which could then be monitored to detect leaks. "L" stands for local and Mr. Lutz stated the canisters need to be stored near where they were generated, but as some sites are near water this principle might not be appropriate for those plants. The "M"

stands for monitoring, which should be undertaken on a 24-7 basis to detect any change in pressure within the outer shell.

Mr. Lutz stated he has an open mind as to other concepts but it was his belief the dual, outer and inner shell canister would be more acceptable to the nuclear industry than some other concepts as it would allow in industry to continue to use existing canisters. Mr. Lutz stated Citizens' Oversight submitted an application to the NRC for what he stated were very specific changes in 10 CFR Part 72 regulations and is moving forward with an administrative process concerning its HELMS Proposal. He observed the NRC Waste Confidence Rule provides that spent fuel storage systems can remain in place indefinitely while the NRC only provides a 40-year license for such systems and this disconnect needs to be rectified with the technology now available. He stated he has sent information on the HELMS Proposal to the DCISC and Dr. Budnitz confirmed that the Committee has received the information.

Dr. Budnitz inquired how much the HELMS Proposal might cost to which Mr. Lutz replied he did not have an estimate other than that it would be less expensive than other proposals now under consideration. Mr. Lutz remarked the consolidated interim storage facility planned to be located in New Mexico and partially approved by Congress would only need to make its storage vaults somewhat larger. For independent spent fuel storage installations located outside, in the open, at sites such as DCPD there would only be the need to cover the site with a concrete structure once the outer shells were installed over the existing canisters. He observed there would be no need for repackaging spent fuel as was planned for the Yucca Mountain repository in Nevada. Dr. Budnitz observed that had the Yucca Mountain repository opened as planned and on the schedule proposed by the U.S. Department of Energy, all waste stored on nuclear power plant sites in the U.S. would have been disposed of over a 50-year period from Yucca Mountain's opening. Dr. Budnitz reported the cost of Yucca Mountain was estimated as slightly more than 1% of the value of all electricity generated to produce the waste and he stated costs for the HELMS Proposal were likely to be much less. Dr. Budnitz recommended to Mr. Lutz that, to make the HELMS Proposal more realizable, it would benefit the proposal to include an approximate cost estimate. **He stated that a proposal such as the HELMS Proposal that could work to make storage safer is of interest to the DCISC.** Dr. Peterson observed the capability to use an over pack as an additional canister has been identified as important from the perspective of mitigation of risk, particularly if a spent fuel pool is to be decommissioned. Mr. Lutz remarked that PG&E's Humboldt Bay Nuclear Power Plant (HBNPP) employs a pressurized, double layer design for its spent fuel storage system and Dr. Peterson stated this was an interesting approach as the casks used at HBNPP are also designed for transportation. Dr. Budnitz remarked that while it is important to think through the criteria, specific details may stifle innovation and there are many innovative approaches possible for meeting these criteria.

XII INFORMATION ITEMS BEFORE THE COMMITTEE

The Chair 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 has more than 30 years' experience in the nuclear industry and holds a Bachelor of Science Degree in Nuclear Engineering from the University of California at Santa Barbara and has completed executive level courses at Stanford University. Mr. Harbor

previously held leadership positions in Engineering, Regulatory Services, Operations, Maintenance and Generation Business organizations at DCP.

Mr. Harbor introduced Ms. Paul Gerfen, DCP's Senior Station Director. Mr. Harbor reported Ms. Gerfen has more than 20 year experience in the nuclear industry, holds a Bachelor of Science degree in Computer Engineering, and has previously held leadership roles in Operations, Maintenance Engineering and Digital Engineering organizations at DCP.

Presentation on the State of the Plant including Key Events, Highlights and Station Activities since the DCISC's February 2018 Public Meeting.

Ms. Gerfen reported both units are operating at 100% power and there are no challenges at this time. She reported two weeks ago Unit-1 experienced a main feedpump low lube oil reservoir alarm and to proactively address the situation Unit-1 was ramped to 50% power to determine if the trip signal would lock in and trip one of the Unit-1 feedpumps. It was determined that a problem existed with one of the main annunciator circuits and Unit-1 immediately ramped back to 100% power. In April 2017 a cooling water tunnel cleaning was performed for Unit-1 which occupied three to four days with the unit again ramped to 50% power. There were no challenges during the tunnel cleaning. In response to Dr. Peterson's query, Ms. Gerfen stated that by ramping to 50% power for the feedpump event the plant experienced less stress as depending on the power level, auxiliary feedwater pumps would have otherwise been started which introduces colder water into the secondary system. Ramping to 50% also provides time for the Control Room personnel to review procedures.

Ms. Gerfen displayed and briefly reviewed generation graphs showing operational performance during 2018 for both units and a second graph showing performance since the last public meeting of the DCISC in February 2018.

Ms. Gerfen reviewed the DCP 2018-2022 Operating Plan and the new mission and culture statements which focus on the concept of generating excellence in areas of safety, people, reliability, affordability, risk compliance and ethics and in regulatory and external strategy.

Ms. Gerfen reviewed upcoming station activities including:

- 7th ISFSI Loading Campaign - June-July 2018.
- Station Assignment Workshops - June 26 - August 1, 2018.
- NRC Design Basis Inspection - June 11-29, 2018.
- NRC Radiation Safety Inspection - Week of July 9, 2018.
- NRC Security Equipment and Training Inspection - Week of October 15, 2018.
- NRC Triennial Fire Protection Inspection - Week of October 15, 2018.
- NRC Emergency Planning Inspection - Week of October 22, 2018.

In response to Dr. Peterson's request, Ms. Gerfen described the major goals of the station alignment workshops as creating alignment from the top to the bottom of the DCP organization and to emphasize the focus for all employees on the Operating Plan and to identify how each employee contributes to the specific areas identified in the Operating Plan in their daily activities. The station alignment workshops are also intended to provide employees with a look

ahead to 2019 when the station will have two refueling outages, the World Association of Nuclear Operators (WANO) evaluation, and a Security organization force-on-force drill. In response to Consultant Wardell's inquiry, Ms. Gerfen confirmed the Triennial Fire Protection Inspection will include the National Fire Protection Association Regulation 805 (NFPA 805) program as well as the rest of the fire protection programs. In response to Dr. Lam's inquiry on the plant's focus on flexibility and whether that concept was synonymous with cutting corners, Ms. Gerfen replied that flexibility as used in the Operating Plan and otherwise was in no way intended or allowed to affect safety, reliability or affordable operations and those concepts are integral parts of the organizational culture of DCP. In response to Dr. Budnitz inquiry, Ms. Gerfen replied she had no concerns at this point on upcoming NRC Radiation Safety Inspection as the DCP Radiation Protection organization and plant performance on the "As Low As Reasonably Achievable" (ALARA) concept is within the top decile within the nuclear industry.

Mr. Harbor introduced Senior Director for Nuclear Services Mr. Jan Nimick and reported that Mr. Nimick has more than 20 years' experience in the nuclear industry and held a Senior Reactor Operator License and a Bachelor of Science Degree in Mechanical Engineering. Mr. Nimick has held leadership roles at DCP in the Operations and Maintenance organizations.

Update on Long-term Capital Project Planning under CPUC Decision D.18-01-022 including the Plant Investment Review Process and an Overview of the Project Review Working Group Process and the Results of its Analysis to Date.

Mr. Nimick reviewed the history of the Joint Proposal under which PG&E agreed to forego pursuing relicensing for DCP and for the plant to close by 2025. As a result Mr. Nimick reported the Project Review Working Group was assembled in 2016 to perform a technical review and to assist DCP leadership on assessing each project planned or in progress. The Project Review Working Group consists of a multi-disciplined team made up of representatives from the Engineering, Maintenance, Operations and Work Management organizations. A number of projects were cancelled as a result of Project Review Working Group's recommendations to the Excellence Plan Executive Oversight Board. Projects required by regulation were retained as well projects recommended in order to maintain safety and reliability. **In response to Consultant McWhorter's inquiry, Mr. Nimick stated he estimated about a third of the projects submitted for review were cancelled and he agreed to provide the final list of cancelled projects to date to the DCISC.** Mr. Nimick confirmed Dr. Budnitz' observation that the Eagle 21 Plant Protection System replacement project was amongst the projects that were cancelled and Westinghouse has committed to support the Eagle 21 System through the end of the plant's operational lifetime. Mr. Nimick observed that review and assessment by the Project Review Working Group is now a part of future project review and the group meets on a routine basis for that purpose and to advise the Plant Health Prioritization Committee which is involved in making final decisions on capital spending.

Mr. Nimick stated DCP continues to implement projects and he cited the baffle-former bolt inspection and replacement for Unit-1, the cavity seal replacement for Unit-1, and the control rod guide card inspection and replacement for both units as examples of completed projects. Future projects to be undertaken include the stator re-stack for Unit-2 during 2R21, the main annunciator replacement for both units in 1R22 and 2R22, and replacement of air compressors and plant air dryers. Mr. Nimick confirmed Dr. Lam's observation that the stator

re-stack is the project which entails a greater amount of complex work than the other two projects he described.

Mr. Nimick reported DCPD is reviewing its preventive maintenance practices using a multi-disciplined, Preventive Maintenance Optimization Team involving the Operations, Maintenance and Engineering organizations performing a structured analysis of more than 12,000 planned maintenance items. The team is assessing maintenance frequencies in order to optimize the effectiveness of preventive maintenance activities. In response to Consultant Wardell's inquiry, **Mr. Nimick reported the team has reviewed approximately 60% of the 12,000 maintenance tasks and he offered to review the preventive maintenance optimization efforts with the DCISC during the scheduled July fact-finding visit.** Mr. Nimick stated his opinion that this effort would be valuable no matter how long the plant was planning to operate as the effort frees up maintenance resources to work on corrective items.

Dr. Peterson noted that in many industrial contexts there is a movement away from preventive maintenance and toward condition-based maintenance and there are better techniques available now than in the past to monitor degradation and to predict equipment performance and this trend actually increases safety as it avoids creating a "bathtub curve" wherein equipment with newly performed maintenance may be more susceptible to failure during initial operation after maintenance was performed. Dr. Peterson observed any move away from preventive maintenance requires an assessment of the use of resources that are accordingly freed up to ensure they are employed in a manner that mitigates any incremental increase in risk. Mr. Nimick agreed and stated efforts are now underway by the Electric Power Research Institute (EPRI) to develop on line monitoring devices and guidance for particular equipment. In response to Dr. Budnitz' inquiry as to whether any of the efforts to optimize preventive maintenance have come into conflict with the plant's technical specifications or the NRC Maintenance Rule, or where the proposed change are in conflict with a probabilistic risk assessment, Mr. Nimick stated that to date he was unaware of any such conflicts.

Mr. Nimick, in response to Dr. Peterson's request, reviewed some of the efforts now being undertaken at other nuclear power plants to install instrumentation on equipment and then to feed data to a central computer through a wireless network, as this is part of an initiative to move toward condition-based maintenance and he described the challenges these efforts may face in understanding causation with the increased use of artificial intelligence. He remarked that as the plant is only expected to run for a few more years DCPD is not engaged in these types of efforts and preventive maintenance frequencies have not changed based on data from installed monitors or monitors installed on large components as those components are replaced. Dr. Peterson encouraged Mr. Nimick to explore this issue as performing preventive maintenance and creation of the resulting bathtub curve may actually increase risk. In response to Dr. Budnitz' query, Mr. Nimick confirmed that Operations provides a senior reactor operator/shift manager to serve on the Preventive Maintenance Optimization Team in order to bring a detailed knowledge of emergency procedures to the team. In response to Consultant McWhorter's observation, Mr. Nimick confirmed the emergency diesel generators are being assessed as part of the preventive maintenance optimization efforts.

Following Mr. Nimick's presentation, Ms. Rochelle Becker of the Alliance for Nuclear responsibility was recognized. Ms. Becker inquired whether work on the Unit-2 stator rewind

would result in the stator being subject to the bathtub curve effect; whether the replacement of the main annunciator is expected to be completed for less than \$20 million; and were the projects described by Mr. Nimick approved by the CPUC in the last rate case. Ms. Becker also inquired as to the cost of the cancelled projects and she requested a list in electronic format, as well as information concerning the savings realized by their cancellation. Mr. Nimick stated the Unit-1 stator was rewound in operating cycle 12 and it is expected to perform well through the end of operations. The stator for Unit-2 has never been rewound and is now at the end of its expected operational lifetime. He remarked equipment is never out of the bathtub curve effect which is governed by time and failure rate, and that results in a higher failure rate at the beginning of a component's operational lifetime but the failure rate drops off rather quickly to a period of stable operation with a rising risk of failure toward the end of a component's expected lifetime. **Mr. Nimick stated he would need to check on the estimated cost of the replacement of the main annunciator and he agreed to provide that information to the DCISC.** Mr. Harbor confirmed that the stator project will be included in the current rate case filing. **Mr. Nimick stated he would provide the DCISC with a full listing of the cancelled projects and Mr. Harbor remarked that the plant would need to consult with PG&E's Legal Department before providing information on the cost of the cancelled projects.** Dr. Budnitz remarked that the DCISC is not necessarily concerned with the cost of the projects unless operational issues are identified in connection with cancelled projects.

Ms. Sherry Lewis of Mothers for Peace was recognized. In response to Ms. Lewis' inquiry, Mr. Nimick confirmed that the Unit-2 stator rewind project will include replacing the coils on the armature and the current-carrying portion of the stator but will not involve replacement of the rotor or the frame but will include replacement of the hydrogen cooler and the seals and many other components of the stator.

Mr. David Weisman of the Alliance for Nuclear Responsibility was recognized. Mr. Weisman remarked that as part of the Alliance's settlement in PG&E's general rate case, information was to be made available to the Alliance by PG&E on projects that exceeded \$20 million in cost. Mr. Weisman noted the presentation made to the DCISC by Mr. Nimick included aspects of affordability and he observed that topic should not be dismissed and be at least of some concern to the DCISC especially in the waning years of the plant's operation. Mr. Weisman observed the Alliance and the DCISC should be looking for the same information from PG&E as to project costs although they may view it in differing contexts.

Mr. Ray Lutz of the Citizen's Oversight group was recognized. Mr. Lutz stated he was surprised that PG&E would be considering a complete rewinding of the Unit-2 stator at this time and he suggested that consideration should be given to shutting down one of the units on an extended basis and only operating a single unit and then using the funds which would have gone to the stator rewind project to install renewable power sources. Mr. Lutz stated that from the perspective of reviewing preventive maintenance efforts in a context other than that of the plant's technical specifications, Citizen's Oversight would prefer to have a committee review those issues in public as NRC review may prove inadequate.

Dr. Lam thanked Mr. Nimick for his informative presentation.

Mr. Harbor introduced Director of Strategic Initiatives, Mr. Tom Jones, to make the next informational presentation to the DCISC. Mr. Harbor reported Mr. Jones has more than 20 years' experience in governmental relations and holds a Bachelors of Arts degree in governmental and political science.

Update on the DCPD Employee Retention Plan under CPUC Decision D.18-01-022 including Ongoing Efforts to Retain Sufficient Numbers of Qualified Licensed Operations Department Staff.

Mr. Jones thanked the Committee Members for their recent letter in support of SB 1090. He reported that a legal challenge to the license granted to PG&E by the State Lands Commission to occupy the public right of way on the coastline in order to use ocean water for DCPD cooling was just that afternoon adjudicated in favor of PG&E by the California appellate court.

Mr. Jones reported the Employee Retention Program was a part of the Joint Proposal, however, in Decision 18-01-022 the CPUC reduced funding for the program by 40%, that is, by reducing the financial incentive to remain employed at DCPD from 25% of an employee's salary to 15%. Mr. Jones remarked the 25% proposal was benchmarked, that is it was found to be comparable with those offered by DCPD's peers in a decommissioning context within the nuclear industry and therefore judged by PG&E to be appropriate. State Senator Monning, whose district includes the San Luis Obispo area, has introduced SB 1090 which would provide legislative redress of CPUC reduction and SB 1090 has now passed out of the State Senate and is now pending before the Assembly for committee assignment.

Mr. Jones displayed metrics for the Employee Retention Program in light of the reduction imposed by the CPUC which required PG&E to again extend an offer to participate to DCPD employees. The new offer, extended in accordance with the CPUC Decision, resulted in a 1% difference in the number of employees accepting the incentive and Mr. Jones stated the incentive remains an effective tool in the recruitment process. He reported 277 positions have been filled at DCPD both internally and externally since the Joint Proposal was announced with 94% of those employees in those positions electing to participate and to accept the incentive.

Mr. Jones displayed graphs showing quarterly progress in the percentage of retention agreements signed which showed a reduction of 1% when the program was recast by the CPUC Decision. Mr. Jones observed that the 133 persons who elected not to sign retention agreements represented a number aligned within the annual average of plant turnover in personnel and he reported 58% of the 133 persons who declined to participate are now fully eligible to retire. In response to Dr. Lam's inquiry as to whether SB 1090 was necessary, as the differences in participation are not great, Mr. Jones responded that when SB 1090 was introduced in February 2018, the offer of 25% was contingent on passage of SB 1090 and was further conditioned upon an employee having agreed to participate at the 15% level. Dr. Peterson remarked the DCISC's concern over the reduction in the retention incentive was principally focused upon tranche two. In response to Dr. Peterson's observation, Mr. Jones reported that as payments were not made at the time the retention program was recast by the CPUC, there was no obligation for employees to have to pay back funds received. Mr. Jones reported as to tranche two, in order to be eligible for the severance program, which exceeds the aggregated benefits of tranches one and two, an

employee must participate in tranche two. He reported invitations to participate in tranche two will be extended in one year.

In response to Dr. Lam's observation, Mr. Jones stated that he did not believe the 15% retention incentive would have been sufficient to obtain the current results, although he stated he also did not believe that employees were relying upon the legislation as a principal factor in deciding whether to participate. Mr. Jones stated his belief that support for SB 1090, and its potential effect on tranche two, is an important and effective factor in DCP's ability to immediately recruit new hires. Dr. Budnitz expressed his opinion, and Mr. Jones agreed, the plant closure date does not appear to be affecting recruitment in the national labor market and this was a good sign of the Employee Retention Program's effectiveness.

Mr. Jones stated he would keep the DCISC updated on the Employee Retention Program. In response to a request made earlier by the DCISC, Mr. Jones reported that there has been no challenge to the plant's ability to retain five licensed, operational shifts fully staffed with licensed personnel. There are also 26 persons with reactor operator licenses who are at present employed at the plant in positions other than Control Room operations and this reserve provides DCP with the ability to assemble two, and possibly three, additional shifts of licensed operators if necessary. Mr. Harbor, in response to Consultant McWhorter's question, stated that some personnel with NRC licenses continue to maintain their license while employed in other areas of the plant and some licenses become inactive. There is a program in place that, so long as the license is reactivated within two years, the employee can return to Operations and stand watch in the Control Room for 56 hours before his or her license is reactivated but the majority of those 26 persons who hold licenses could be available immediately. Mr. Jones reported there are 40 persons currently involved in two licensed operator classes while three non licensed operators have left DCP's employ for other opportunities. Mr. Harbor stated this does not represent, in DCP's view a negative trend as a number of operators leaving were within retirement age and two of non licensed operators took opportunities elsewhere within PG&E's generation organization. **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 DCP through the end of its licensed operation.** Mr. Jones reported the Joint Proposal provided for \$11,300,000 to aid in retraining initiatives which will be implemented as the time for plant closure approaches. In response to Consultant McWhorter's inquiry, Mr. Jones stated DCP has not conducted any surveys to assess employee interest in tranche two.

XIII ADJOURN EVENING MEETING

The Chair adjourned the afternoon meeting of the Committee at 7:02 P.M.

XIV RECONVENE FOR MORNING MEETING

The June 14, 2018, morning session of this public meeting of the Diablo Canyon Independent Safety Committee was called to order by its Chair, Dr. Peter Lam, at 9:05 A.M.

Dr. Lam welcomed those present and attending remotely by live-streaming video to the meeting. Dr. Lam introduced his colleagues.

XV COMMITTEE MEMBER COMMENTS

There were no comments by any Member at this time.

XVI PUBLIC COMMENTS AND COMMUNICATIONS

Dr. Lam inquired whether any member of the public wished to comment or to address the Committee on matters not appearing on its agenda for this meeting. There was no response to his invitation.

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

Dr. Lam requested Mr. Harbor to continue with the informational presentations requested of PG&E by the Committee for the public meeting.

Mr. Harbor introduced DCPD Manager of Regulatory Mr. Hossein Hamzehee and reported Mr. Hamzehee has more than 30 years of experience in the nuclear industry and holds Master of Science Degrees in Nuclear and Mechanical Engineering and brings extensive experience with the NRC including at the level of an NRC Branch Chief.

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

Mr. Hamzehee reported DCPD is rigorously inspected by the NRC and is committed to the highest standard of safety. In response to Dr. Peterson's remark that DCPD was also inspected by INPO, as well as by its internal Nuclear Safety Oversight Committee (NSOC), Mr. Hamzehee commented while the NRC principally focuses upon regulatory requirements, the NSOC reviews all aspects of DCPD operations three times each year and identifies strengths and weaknesses which are taken very seriously by senior leadership and the Corrective Action Program is used to address issues raised by the NSOC. He reported the INPO focuses upon operations and provides a rigorous, systematic approach to its audit visits and an independent, formal evaluation every two years of a licensee's performance concerning operations, maintenance, and training, and as with the NSOC reviews, the Corrective Action Program is used to address issues raised by INPO. In response to Dr. Peterson's query, Mr. Hamzehee stated all the reviewers provide rigorous oversight but INPO and the NSOC may review areas where there may be no regulatory requirements but which can impact reliability and safety and the respective roles of the NSOC and the INPO enable DCPD to be better prepared for the regulatory compliance reviews by the NRC.

Mr. Hamzehee he would provide an overview of DCPD performance based on NRC's Performance Indicators since the last meeting of the DCISC in February 2018. He remarked his presentation would cover approximately four months of NRC inspections involving ~1,600 hours of inspection time.

During the period February -May 2018 DCPD met all Green performance expectations for all NRC performance indicators. Three violations of very low safety significance were issued by the NRC since the last DCISC meeting in February 2018. 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

In response to Consultant Wardell's inquiry, Mr. Hamzehee stated that none of the indicators are close to entering White status. Concerning the indicator for Unplanned Scrams per 7000 Critical Hours, Dr. Budnitz reported that in 1978, prior to the accident at Three Mile Island Nuclear Generating Station in Pennsylvania, the average number of automatic, unplanned scrams was 11 per reactor per year which declined by 2012 to 0.2 per reactor per year, which equates to one unplanned scram at any one plant every five years. Mr. Hamzehee remarked Unit-1 last experienced an unplanned scram more than ten years ago while for Unit-2 the last unplanned scram was about seven or eight years ago. Dr. Peterson observed this is because safety-related reactor protection systems are designed to be highly reliable and most automatic unplanned scrams occurring today are associated with equipment failure and do not relate to factors associated with exceeding safety limits. Dr. Lam remarked that the number of licensee event reports (LERs) has also declined dramatically over the past 35 years from approximately 100 LERs per licensee per year to single digits. Mr. Hamzehee reported there were no LERs issued by DCPD during February through May 2018. However, Mr. Hamzehee remarked, and Dr. Peterson agreed, that issuing a LER is not considered a negative reflection on plant performance but rather an indication that issues are being reported appropriately and not being under reported. He reported the criteria for issuing a LER is found at 10 CFR 50.73 and includes a reactor trip, inadvertent actuation of a safety system, or failure of a component and he observed for a redundant system that failed but did not impact any train or system function that these types of events do not require that a LER be submitted. Mr. Hamzehee observed to require the NRC to review thousands of LERs without safety significance would unnecessarily tax the NRC's resources but he noted within the guidelines of 10 CFR 50.73 there are a number of criteria without safety significance that require reporting. Mr. Hamzehee and Dr. Peterson discussed the need to assess and determine how to prevent low level safety-significant events by inputting

them into the Correction Action Program as in doing so error rates can be driven even lower and additional significant events thereby avoided. Mr. Hamzehee confirmed that as a part of this effort DCPD monitors events at a much lower level than required by the NRC.

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. He confirmed Dr. Peterson's observation that DCPD through its Operating Experience Program monitors the reports of other nuclear power plants to identify any events which may have similarities to DCPD.

Mr. Hamzehee report on NRC Violations February 2018– June 2018 and stated there were three violations, two were non cited violations (NCV) and one was as finding, issued as follows:

➤ Non Cited Violation (Green) - for failure to provide adequate procedural guidance for operating the Nitrogen Supply System. (No cross-cutting aspect.) In July of 2017 DCPD identified an increase in the nitrogen level in Unit-2 Containment and determined the cause was a leaking power operated relief valve (PORV) for the nitrogen supply system due to a damaged o-ring. It was determined maintenance procedures did not provide enough guidance to ensure the PORV was properly installed and as a result there was some pressure excursion in the system which required the PORV to open and close more than usual which resulted in wear on the o-ring. Mr. Hamzehee reported this self-revealing NCV did not represent a design deficiency or loss of a safety system and accordingly was found to be of very low safety significance.

Dr. Peterson observed that General Electric's digital division has developed technology that is capable of assessing large volumes of data sets and allows use of various tools to identify issues or problems. He remarked at a Westinghouse fuel fabrication facility, for some period of years, uranium was deposited at very slow rates through the ventilation system and finally this accumulation of uranium caused a serious situation and it is this type of situation where one is losing inventory at very low rates that could now be detected with new technologies. Dr. Peterson remarked these technologies and methodologies can now be employed to detect anomalies at much lower levels than possible previously. Dr. Budnitz remarked there is always a tension between how much one can inspect, as performing frequent inspections affects operation and Dr. Peterson noted this one of the principal reasons for moving toward online monitoring of equipment using wireless technology and ensuring sufficient memory capacity exists to retain data in order for it to be useful to prevent recurrence in the event failure does occur. Mr. Hamzehee agreed and he reported DCPD does have leakage monitoring programs in place for its risk-significant safety systems through the individual system engineers.

Dr. Budnitz used an analogy in the above context to describe the limited improvement one would achieve for an automobile if cost were no object and tires were for some reason changed every 500 miles as therefore one would be required to accept the unavoidable risk associate with human error in installing a tire thereby creating a greater risk than had the tires been left on the vehicle for the full lifetime of their treads. He remarked there is a certain minimum amount of error that cannot be easily avoided without very difficult, intrusive work no matter how much one is willing to spend. Mr. Hamzehee remarked that in prior years the

nuclear industry was engaged in a debate concerning how to optimize the ratio of preventive to corrective maintenance. Dr. Peterson remarked that over the next seven years, as the plant transitions to closure, these issues will become increasingly important.

➤ Non Cited Violation (Green) - for failure to follow maintenance procedure resulting in temporary loss of source range nuclear instrumentation. (Cross-cutting aspect H.5 Work Management.) This occurred in March 2018 during a Unit-2 refueling outage while the reactor was in Mode 3 (hot standby) and the Maintenance organization was performing informal troubleshooting and failed to follow all the steps in a procedure and thereby created a hot circuit resulting in a blown fuse and loss of power to one of the instrumentation cabinets.

➤ Finding (Green) for failure to follow procedural requirements regarding review of Operating Experience which had the review been adequate could have prevented a similar event from occurring at DCP. (No cross-cutting aspect.) This occurred in November 2017 when Centrifugal Charging Pump 2-1 (CCP 2-1) was shut down due to an increase in the temperature of a motor bearing. The cause was found to be failure of an anti-rotation pin and the NRC found that a similar event had occurred previously at the South Texas Project Nuclear Station which if it had been taken cognizance of by DCP could have prevented the failure of CCP 2-1. Mr. Hamzehee stated the South Texas Project's report was included in DCP Operating Experience data but was not identified in the system. Mr. Harbor remarked this event was an example of the value of Dr. Peterson's observation that in-service wireless monitoring of equipment could play a vital role in avoiding events. Dr. Peterson remarked by employing the use of drone technology, infrared photography, and sophisticated software any change to an area in a power plant can be effectively assessed such that any change is immediately identified and the International Atomic Energy Agency has done considerable work in this area. Dr. Peterson encouraged DCP to explore the technological options now available in its quest to reassess the need for preventive maintenance and Dr. Peterson remarked this effort may have application for PG&E outside the nuclear area.

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

- 4th Quarter 2017 Integrated Inspection Report (2017-004, 02/06/18).
- Initial Operator Examination Report (2018-301, 03/20/2018).
- 1st Quarter 2018 Integrated Inspection Report (2018-001, 04/24/2018).

Following Mr. Hamzehee's presentation, Ms. Rochelle Becker of the Alliance for Nuclear Responsibility was recognized. Ms. Becker inquired concerning the date for the next NRC end-of-cycle public meeting. Mr. Hamzehee stated it was his understanding the meeting is now tentatively scheduled by the NRC for August 28, 2018, although he stated this was an NRC meeting not a PG&E meeting.

Ms. Sherry Lewis of Mothers for Peace was recognized. Ms. Lewis commented during the period described by Dr. Budnitz when there were 1,100 unplanned automatic reactors scrams per year across the industry, the public was still being told by the industry that everything was going well. Ms. Lewis commented it is therefore hard to trust the nuclear industry. Dr. Budnitz

remarked that any such comments made at that time must be seen in comparison with industry and performance of nuclear technology during earlier periods and this has generally been true for every technology, that is, as time passes the technology gets safer. Ms. Lewis remarked her comment may have been prompted by her own distrust of authority.

Dr. Lam thanked Mr. Hamzehee for his presentation and recognized the presence of Dr. Justin Cochran, Senior Nuclear Policy Advisor and Emergency Coordinator for the California Energy Commission. Dr. Cochran stated he was present representing California Energy Commission Chair Dr. Robert B. Weisenmiller who also serves as the Governor's appointed liaison to the NRC. Dr. Cochran stated Dr. Weisenmiller expresses his thanks to the DCISC and to its support staff for the excellent and essential work they perform. Dr. Cochran also thanked Dr. Lam for his service on the Committee and stated Dr. Weisenmiller appreciates receiving Dr. Lam's insights and perspective on issues pertaining to nuclear energy. Dr. Cochran closed his remarks by also thanking the members of the public and PG&E and its staff for their dedicated efforts and critical contributions.

Mr. Harbor introduced DCPD Manager of Seismic Engineering Mr. Nozar Jahangir and reported Mr. Jahangir has more than 30 years' experience in the nuclear industry including in Engineering, piping and seismic type activities.

Seismic Probabilistic Risk Assessment Project Results including an Update on the Status of PG&E's Review of the Tsunami Hazard and Risk at DCPD and its Environs.

Mr. Jahangir began his presentation with background on the hazard reevaluation performed following the catastrophic events of March 2011 at the Fukushima Dai-ichi Nuclear Power Plant in Japan (Fukushima). Following the accident to Fukushima, the NRC ordered all U.S. nuclear plants to perform a seismic hazard update in accordance with the following directives and responses by DCPD:

- March 2012-NRC Request for Information on Seismic Hazard Update, Post Fukushima issued under the 10 CFR 50.54(f) process.
- November 2013: seismic "walkdowns" for both units submitted to NRC.
- March 2014: NRC staff accepts seismic "walkdowns" letter.
- March & December 2015: probabilistic seismic hazard assessment (PHSA) update including screening evaluation (initial & supplemental) submitted to NRC.
- December 2016: NRC staff PHSA letter issued, indicating "proceed with Seismic Probabilistic Risk Assessment (SPRA)."
- April 2018: updated/upgraded SPRA submitted to the NRC.

Objectives to be determined in this process included: (1) the likelihood of a seismically induced core damaging accident; (2) the likelihood of a seismically induced accident that results in a large, early release of radiation; and (3) the potential risk contribution from structures, systems and components. Mr. Jahangir described key elements in performing the SPRA as developing a seismic hazard, creation of seismic fragility and probabilistic analysis model, each with its own subset of elements that make up the activity, followed by an independent peer review technical adequacy assessment by external subject matter experts. Mr. Jahangir displayed and discussed a flow chart for the SPRA which included two graphic depictions representative of

the site hazard showing the response for the probabilistic analysis using the site and the ground motion characterization parameters. Dr. Budnitz explained the use and utility of showing the peak ground motion acceleration at differing frequencies shown on the graph.

Mr. Jahangir then reviewed the fragility reevaluation which he described as bringing the seismic hazard reevaluation PRA model down to its component structural level. He reported the SPRA was subject to extensive external peer review and demonstrates key plant structures, systems and components have significant seismic capacity beyond their seismic design basis, that is, key plant structures, systems and components can withstand a greater level of seismic motion than the plant was designed to withstand. Additional FLEX equipment stored onsite to respond to a beyond design basis event and the procedures to respond should such an unlikely event occur enhance safety. Dr. Peterson commented on the plant tour the Committee conducted the previous day with members of the public during which the group had an opportunity to visit the FLEX Equipment Storage Facility and to observe that every piece of FLEX equipment was tied down in some manner so as not to be damaged in an earthquake, including a large truck. Dr. Peterson observed, however, on a recent fact-finding visit the DCISC representatives found some tall furniture had not been braced and represented a danger to persons in an earthquake. Although a notification was written for this to enter the condition into the Corrective Action Program, Dr. Peterson stated he found the existence of this condition to be detrimental to safety and disappointing and he emphasized the need to protect both equipment and plant personnel in the event of an earthquake.

Mr. Jahangir reported Seismic Core Damage Frequency (SCDF), used to assess seismic risk is defined as the likelihood of a core damaging accident caused by an earthquake and reported the SCDF was calculated to be equal to $2.78 \text{ E-}5/\text{yr}$. The Seismic Large Early Release Frequency (SLERF), that is, the likelihood of an earthquake-induced accident that results in a large, early release of radiation, was calculated as to be equal to $5.37 \text{ E-}6/\text{yr}$. Mr. Jahangir stated these values are generally in accord with industry average values for the other 20 nuclear power plants currently performing a SPRA. Only five of the 20 plants have submitted their SPRA to the NRC with DCPD being one of those five plants. Mr. Jahangir identified and reviewed key scenario drivers for these results as including:

- Station Blackout (for SCDF).
- Instrumentation Failure (for SCDF).
- Building Failures, e.g., Auxiliary, Containment (for SCDF).
- Containment Exterior Shell Failure (for SLERF).
- Steam Generators Failure (for SLERF).
- Containment Isolation Failures (for SLERF).

Mr. Jahangir then requested Dr. Albert Kottke, the geotechnical earthquake engineer in the PG&E Geosciences Department, to continue the presentation to the DCISC.

Dr. Kottke stated he would be discussing the seismic hazard reevaluation including: the development of structure-specific foundation inputs, which are termed foundation input response spectra (FIRS); the development of input time series for structural analysis; and the non vibratory hazards including seismic slope stability, tsunamis, and secondary fault rupture.

Dr. Kottke explained FIRS defines ground motion at foundation level of specific structure and was developed for:

- Containment structures.
- Auxiliary Building.
- Turbine Building.

The horizontal components of the FIRS were computed using a combination of empirical and analytical site amplification. He described this as consistent with the general approach used for calculation of the ground motion response spectra (GMRS). Once the horizontal FIRS are computed, vertical FIRS are developed using a computerized model developed by Drs. Gülerce and Abrahamson in 2011. Dr. Kottke displayed a graph showing the horizontal and vertical FIRS parameters for the power block structures and he noted the differences are caused by different elevations for the respective structures.

Dr. Kottke reviewed what he described as insights gained from looking at the sources dominating the hazard, including:

- Close seismic sources control the total hazard. Hosgri, Shoreline, Los Osos, and San Luis Bay Faults contribute 90+% of total hazard above 0.3 g.
- Median ground motion models and total uncertainty models dominate the ground motion characterization.
- Significant reduction in the uncertainties associated with seismic source characterization:
 - Slip rates of faults are well constrained:
 - Close distance saturation of large magnitude events.
 - High seismicity rate.
 - Four close sources.

Dr. Kottke explained that as energy moves from a rupturing fault to a location, if that location is very distant from the site of the rupture then the distant location experiences the full energy and magnitude of the rupture, as magnitude is related to length of rupture. At nearer distances, there is not as much energy contribution to the event and the consequences of a rupture depend to a great degree on the location of the rupture.

Dr. Kottke then reviewed with the DCISC the evaluation of the tsunami hazard and explained that the SPRA effort requires consideration of that hazard. To undertake this task two tsunami wave heights were considered:

- 46 ft. (14 m.) – height of the snorkels (impacting the ASW pumps).
- 85 ft. (26 m.) – the elevation of DCP.

The analysis considered the tsunami sources from nearby slope failure and fault rupture (near and distant). Fault ruptures, near or distant, are not considered as contributors for the large wave heights. Dr. Kottke observed that not all tsunamis are associated with strong shaking at DCP and gave as examples distant earthquakes and static slope failures. The tsunami hazard

evaluation efforts conservatively assumed all tsunamis are associated with strong shaking and considered the probability of both:

1. Ground motion
2. Tsunami wave height

Then the hazards were simplified into scenarios for vector hazard calculation. Vector hazard results include conditional probability computed for integration into SPRA (e.g., wave height given ground motion); very low conditional probabilities (0.001 between 2 and 5 g) which he remarked demonstrate the tsunami hazard to be relatively low. Input from tsunami vector analysis was used for risk assessments for waves > 14 meters and > 26 meters. For tsunami waves > 14 meters, loss of ASW system would occur. Dr. Kottke reported the change in SCDF is insignificant (conservatively estimated to be less than 1E-7/yr.). For tsunami waves > 26 meters, plant equipment inside Turbine Building could be impacted (and core damage was assumed). Change in SCDF is insignificant (conservatively estimated to be less than 5E-08/yr.).

Dr. Kottke reported that the conclusion of the tsunami evaluation determined the seismic risk is dominated by the vibratory ground motion and the potential tsunami hazard has insignificant impact on the SPRA overall.

Drs. Peterson, Budnitz and Lam observed that in its review of the tsunami hazard the DCISC is also concerned with the potential for a stranded plant event and the impact on plant egress and ingress and Dr. Peterson observed that while the tsunami risk may be determined as unlikely to exceed 46 feet (and thereby not to impact the ASW snorkels) there are broader issues as such an event could and very likely would have a devastating effect on the local area and its population and possibly the entire California coastline and this issue has been brought to the attention of the State of California through the efforts of Dr. Justin Cochran, the CEC's Senior Nuclear Policy Advisor and Emergency Response Coordinator. Dr. Kottke remarked that to undertake an analysis of the issue raised by Dr. Peterson more and different information would be required than that used for the analysis relative to DCP. Dr. Peterson observed that with the analyses to date, the DCISC is confident that the plant has the capability with its onsite assets to adequately address any hazard from a tsunami but such an event in the local area could very likely impact the families of plant personnel as occurred in Japan in March 2011.

Mr. Jahangir returned to the podium and displayed a fragilities flowchart and remarked the definition of fragility of a system, structure or component is the conditional probability of its failure at a given hazard input level. Mr. Jahangir confirmed, in response to Dr. Peterson's observation, that both functional and structural fragilities were considered and assessed to determine which is more dominating in the failure analysis and, unlike for a PRA, credit is not given for operator action in fragility analysis. He used a depiction with ground acceleration as a variable and the probability of failure shown graphically and stated that a curve was provided for each component. The objective being to evaluate realistic seismic responses of structures for use in fragility evaluations.

Mr. Jahangir reported that developing ground motion response at each component location required development of key inputs including:

- Foundation Input Response Spectra (FIRS).
- Time Histories.
- Soil profiles.

In response to Dr. Peterson's query, Mr. Jahangir reported that three-dimensional models of DCPD buildings have been developed and used to assess structural response and he confirmed that the models used by DCPD are accepted by the NRC.

Mr. Jahangir reiterated a ground motion model response to the component has been developed and the evaluation of the model's components produce the fragility of the system, structure or component. In response to Consultant McWhorter's inquiry Mr. Jahangir replied the Spent Fuel Pools and the Fuel Handling Building were included within the analysis for the Auxiliary Building as those facilities are a functional part of the Auxiliary Building. Mr. Jahangir confirmed Dr. Peterson's observation that the Containment structures are separated from the Auxiliary Building by gaps and have separate foundations. Probabilistic soil structure interaction analyses were completed for each of the Containment structures, the Auxiliary Building, and the Turbine Building. Variables affecting seismic response include:

- Ground motion.
- Soil stiffness and damping.
- Structure stiffness and damping.

Mr. Jahangir displayed a three-dimensional depiction of the Auxiliary Building and the Turbine Building produced by the model. He stated, in summary, fragilities were calculated, using site specific data (e.g., shake table testing results) primarily by the separation of variables methods approved by the NRC. The capacities are realistic and represent both units, the lowest capacity is in the model and 30 time-history analyses were run and the average used to evaluate a component so as to capture the variability and fragility parameters (capacity and uncertainties) were computed and input into the PRA model.

Mr. Jahangir reported two observations were made as a result of the walkdowns, the first concerned fire water sprinkler piping in the Auxiliary Building (seismic risk contributor, operator actions credited to mitigate potential flooding) and the second concerned a 480V ventilation duct which crosses the area between Auxiliary Building and the Turbine Building without a seismic gap. He displayed a photo of the ventilation duct taken from the Turbine Building and reported that a notification for this condition has been entered into the Corrective Action Program. Dr. Peterson observed that prioritization of the list of these types of items as to their seismic risk is an important aspect, as some may fail in an unexpected way and in an actual event operators would need to first address those with the greatest impact on plant operations.

Mr. Jahangir returned to the SPRA update and upgrade efforts and to important insights identified concerning components and structures. He stated component and structural importance is measured by comparing the relative contribution to risk from different component/structural failure scenarios. Components identified as the most important to seismic risk are:

- Condensate Storage Tank, Firewater Storage Tank, fire water piping –Failure will result in core damage due to a loss of AFW supply for seismically induced station blackout scenarios.
- Main control room vertical boards, PCPS [?] –Failure prevents mitigation of most scenarios due to a loss of control.
- Non load-bearing wall failures in EDG rooms, 4kV rooms and DC bus rooms impact important components and could cause a loss of vital power.
- RCP Shutdown Seals (SDS) reduced seismic risk by 50%

In response to Dr. Budnitz’ inquiry as to whether any of these items represent “easy fixes,” Mr. Jahangir commented they are all on the order of 1% to 2% contributors to seismic risk and for some of these items there is little that can be physically done but perhaps models could be refined so as to remove some conservatism. **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.**

Mr. Jahangir identified structures most important to seismic risk as:

- Auxiliary Building – failure results in core damage.
- Turbine building – failure results in station blackout.
- Containment building – failure results in core damage and release.

Mr. Jahangir reported certain FLEX mitigation strategies are very important to maintaining a low seismic risk level, these include:

- DC load shedding actions taken in response to an extended loss of offsite power. In conjunction with use of fire water storage tank (FWST) for Auxiliary Feedwater (AFW) water supply, allows for continued operation of AFW in a station blackout scenario.
- Manual control of AFW in the event of a complete loss of AC and DC power. Other important actions include isolation of the FWST upon a seismically induced fire water piping failure.

Mr. Jahangir reported on the SCDF perspective, SPRA version and compared the data from the Long Term Seismic Program of 1988 as 3.8E-5 to the Long Term Seismic Program/Near Term Task Force (NTTF) 2.1 Response from 2018 which was 2.8E-5. He remarked it was difficult to identify the reasons for the difference as new components have been added to the plant since 1988.

Mr. Jahangir reported an independent peer review assessments was required by the NRC (per NEI 12-13 guidance document) to validate technical adequacy and compliance to American Society of Mechanical Engineers/American Nuclear Society (ASME/ANS) SPRA standards requirements. He described the peer review’s component phases as:

- Phase 1: peer review assessment was initiated in May 2017. Provided all documents, one month off-site reviews, Q&A. Team of 10 independent subject matter experts, 4 US-NRC observers and 2 Japanese NRRC observers. One week onsite (at San Luis Obispo), face-to-face review in June 2017. Peer review report identified Facts and Observations (F&Os) and issued a report in September 2017.
- Phase 2: independent assessment to review and close resolutions to F&Os from the September 2017 peer review report. Onsite (at San Francisco) in November 2017. Final closure report in March 2018. Appropriate documents were revised to incorporate changes and recommendations by the Peer Review Team. All F&Os were addressed and successfully closed and a final closure report was issued in March 2018 concluding that all scenarios were addressed and there were no open issues remaining.

Mr. Jahangir described the next regulatory steps as including:

- NRC Staff technical assessment anticipated to take approximately one year (Based on comparison with Vogtle Nuclear Power Plant's experience).
- Anticipating interactions with NRC Staff (e.g., requests for additional information) to provide additional clarifications and documents and a potential audit.

He reported the NRC will form an internal panel of experts according to NTTF 2.1 Phase 2 process, to decide if any additional actions are required.

Mr. Jahangir stated PG&E is committed to using insights from the updated hazard and SPRA and will continue to assess future plant additions and modifications and to assess the potential seismic risk impacts by revising affected procedures and documents. Modification to the 480V ventilation duct will be scheduled during 1R21 and 2R21.

Dr. Budnitz remarked that he serves as a consultant to the NRC staff for the purpose of reviewing the SPRAs prepared by other nuclear power plants and that he co-chairs the ASME/ANS SPRA standards committee. In response to Dr. Budnitz question as to whether Mr. Jahangir found anything in the separation of variables methodology that Mr. Jahangir wished were stronger, Mr. Jahangir replied that in his opinion the methodology cited by Dr. Budnitz worked well in PG&E's SPRA analyses and he observed the best tool available at this time and in the future to reduce uncertainties may be the three-dimensional models. Dr. Budnitz remarked that when detailed reports are made available he will look very carefully at how the analysis handled the correlations amongst seismic failure of similar equipment as this is an area requiring considerable judgment. Mr. Jahangir agreed that this was an area which might be improved as there are some conservatism in the model for which any changes would need to go through standards committees. Dr. Budnitz remarked that the committee he co-chairs has recently issued a new methodology and is seeking feedback.

Dr. Peterson stated he was impressed by the work described by Mr. Jahangir and Dr. Kottke and described it as world class and it represents one area where there has been a systematic pushing out of the boundaries in terms of capabilities to identify seismic hazards, quantify risk, and to improve design and to plan out response capabilities and California in particular, and society in general, would benefit from a broad application of these same methods to other infrastructure. In response to Dr. Peterson's inquiry as to the cost of these efforts, Mr. Jahangir remarked that DCPD already had a base model SPRA from which to commence its update and the work to complete the update was several million dollars. Mr. Jahangir remarked the key to these efforts is in the first-time building of a model, as once the model is built the updated hazard can be input to the existing model to achieve a better insight into the largest risk contributors.

Following Mr. Jahangir's presentation, Ms. Rochelle Becker of the Alliance for Nuclear Responsibility was recognized. Mrs. Becker stated her belief that this important information concerning seismic safety with the impact on the local population should be communicated to the San Luis Obispo Board of Supervisors.

Dr. Justin Cochran, CEC Senior Nuclear Policy Advisor, was recognized. In response to Dr. Cochran's question Mr. Jahangir stated the model is not to scale in a meaningful way, nor linear in any event, as to seismic event intensity.

Mr. David Weisman of the Alliance to Nuclear Responsibility was recognized. Mr. Weisman remarked that while Mr. Jahangir's information was detailed, when one gets into those details it becomes opaque. Mr. Weisman stated the Alliance fundamentally disagrees that the seismic source characterization has been adequately identified for DCPD in that he stated there is no certainty as to the mechanism for the uplift of the Irish Hills which rise up behind the plant site. Mr. Weisman remarked this issues has also been raised by the CPUC's Independent Peer Review Panel (IPRP) in its Reports Nos. 6 and 10. Mr. Weisman remarked he was disappointed when the IPRP could only muster one if its members to be present in person for its most recent meeting where much of the information presented by Mr. Jahangir was presented to the IPRP and the PowerPoint presentation was only made available in the morning of the day on which the IPRP held its meeting. Mr. Weisman stated the IPRP was not convinced that the limited number of actual recorded earthquake was sufficient to support PG&E's evaluation of the ground model and that discrepancies exist between empirical bore hole information and calculated information. Mr. Weisman remarked that IPRP Member Dr. Gibson also has yet to receive an adequate explanation for the uplift of the Irish Hills with the latest theory hinging on a geotechnic plasticity aseismic theory which, Mr. Weisman stated, is at odds with the seismic plotting seen under the mountains to the north of DCPD where the San Simeon earthquake occurred in 2003. He stated his understanding that a paper on this topic is being prepared for presentation to the FSA [?]. Mr. Weisman observed there were several findings and observations which were closed out but not met such as the supporting requirement to conduct systematic evaluation of other seismic hazards which may exist under DCPD or that could occur during an earthquake. He remarked that while selected evaluations have been carried out there has been no systematic assessment to support the SPRA and it was recommended that other seismic hazards be

documented in a single report for ease of access and reference. Mr. Weisman closed his comment with an observation on the difficulty of accessing the references in the PG&E report.

Dr. Budnitz responded to Mr. Weisman's comments and agreed that until the references are made available it is not possible to form a judgment. Dr. Budnitz stated there are significant large and irreducible, at least at this point in time with the data on hand, uncertainties in the final results of the hazard analysis used by PG&E. This means that while PG&E has a best estimate of the hazard in terms of its recurrence and the frequencies, those estimates are quite uncertain and the rest of the analysis has those uncertainties embedded in it in attempting to capture what might be the highest and what might be the lowest or what might be the broad spectrum of the state of knowledge of those uncertain issues. The NRC and the DCISC will review PG&E's hazard analysis and if done right in accordance with the existing standards, we will be forced to accept the uncertainties at least until more work is done to improve methods of the analysis or until there are more earthquakes. Dr. Budnitz remarked the DCPD SPRA will receive more review than any other SPRA done in the last twenty years as DCPD is the highest seismic site for a nuclear power plant in the world.

Mr. Weisman thanked Dr. Budnitz for his comments and stated he looked forward to the DCISC and the IPRP review and stated he was surprised Dr. Budnitz also found the results to be, in some respects, opaque. Dr. Budnitz responded by observing that unless one is a civil or structural engineer or a practitioner in the area of seismic analysis the analyses that has led to the finite models discussed by Mr. Jahangir and Dr. Kottke are going to be opaque.

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

The Chair requested Consultant McWhorter to report on a fact-finding visit to DCPD on May 2-3, 2018 with Dr. Peterson. Mr. McWhorter stated topics reviewed with PG&E during that visit included the following:

- Meeting with NRC Resident Inspector - Mr. McWhorter reported the DCISC Fact Finding Team (FFT) met with the NRC's Resident Inspector and reported at the time of the fact-finding visit the Senior Resident Inspector was making an objectivity visit to another nuclear power plant during the fact finding.
- Workplace Seismic Safety - the FFT reviewed this initiative to secure furniture in most of the office areas that are not otherwise controlled by formal seismic programs. For this initiative DCPD has established guidelines entitled "Standards for Bracing Office Furniture, Cabinets and Storage Racks" which was provided to and reviewed by the DCISC representatives. While the standards were judged to be appropriate, the FFT was disappointed to find some existing deficiencies including several cabinets which were not properly braced both in the office areas and in the Instrument & Control Shop. **Mr. McWhorter reported a notification for unbraced cabinets was prepared and entered into the Corrective Action Program and the DCISC will**

follow up on this issue at its July 2018 fact-finding. Dr. Peterson remarked during the public tour held in conjunction with this public meeting, the DCPD Fire Chief informed Dr. Peterson that the Fire Department had identified and secured some cabinets which were not previously braced. Mr. McWhorter stated the FFT found it disappointing that issues still remain with workplace seismic safety.

➤ **Equipment Data Collection, Trending & Retention** - Mr. McWhorter reported the FFT review was intended to assess how plant data is collected and stored. He stated most of the data collected from instrumentation is stored by the plant process computer and while this data is archived and available for analysis, most analysis is done on an as-needed basis and requires manual intervention. The FFT was informed that generally at this time there is no automated monitoring of plant computer data although the Nuclear Energy Institute is prompting review of opportunities for automatic data monitoring and there may be some opportunities to employ automatic data monitoring on operating non safety equipment. Mr. McWhorter reported the reactor coolant pump vibration system does not record large amounts of data for long term analysis as it is an older system with limited memory. DCPD plans to replace that system during summer 2018.

➤ **System Engineering Program** - of the four system engineering programs reviewed, three were in White health status while one was in Green status. The System Engineering Department experienced some turnover in personnel in 2017 and the mechanical engineering group lost approximately one-third of its engineers to retirement and transfers to other departments which Mr. McWhorter stated was more than usual. DCPD is recruiting for and hiring new engineers and Mr. McWhorter reported the FFT was informed that the Joint Proposal does not appear to have impacted recruiting at this time.

➤ **Observe Corrective Action Review Board Meeting** - the purpose of the Corrective Action Review Board (CARB) is to provide senior plant management with an overview of the Corrective Action Program and its activities include performing root cause evaluations, extension of corrective actions and review of notifications and the results of reviews by the Notification Review Team which is tasked with reviewing notifications on a daily basis. The FFT team found the CARB meeting to be efficient and appropriately focused and it was apparent the members of the CARB were well prepared.

➤ **Commercial Grade Dedication Program** - Mr. McWhorter stated this program provides a dedication process whereby commercially purchased items are reviewed, tested and approved for use in safety related system. The need to employ commercially available components usually arises when obsolescence may have caused a part to no longer be available from a supplier which maintains a safety-related quality assurance program. Mr. McWhorter remarked typically it costs more to obtain and test a commercial part than if the plant were able to purchase the item from a supplier with a quality assurance program. A program engineer is assigned to review the part and its intended safety-related function and to identify the tests that need to be performed to ensure the part can perform a safety-related function. DCPD laboratories perform the required tests including testing for hardness and the plant has the capability to test different types of

materials to verify and confirm that the commercial part is accurately fabricated as described. Mr. McWhorter displayed photos of activities in the laboratories and the offsite warehouse facility on Santa Fe Road in San Luis Obispo which serves as the receiving facility for components intended for DCPD and thereby functions to minimize, organize and control the need to process deliveries through plant security.

➤ Cybersecurity Program - Mr. McWhorter stated the primary purpose of the FFT's review was to confirm the station completed all NRC requirements by the end of 2017. He reported this effort cost approximately \$50 million and employed up to 47 persons at the peak of its implementation. Following implementation, the Cybersecurity Program will be permanently staffed by five persons to maintain the program. Dr. Budnitz reported the nuclear industry is putting together a task force of cybersecurity experts and the DCPD Cybersecurity Department will have that resource available. The Cybersecurity Program provides security for plant equipment and is a separate program from that performed by the DCPD Information Technology Department which maintains the utility's data network and business systems. Mr. McWhorter reported that of 4,000 digital assets employed by the plant, each was reviewed by the Cybersecurity Program and approximately 900 were identified as requiring modification. Dr. Peterson observed that DCPD employs good architecture for its data diodes which physically separate information from the business data systems and allows information to flow in only one direction, thereby preventing feeding anything back to a safety system. Mr. McWhorter reported DCPD was successful in meeting the NRC requirements for cybersecurity by the end of 2017 and an inspection will be conducted in 2019. In response to Dr. Budnitz' inquiry, Mr. McWhorter and Dr. Peterson confirmed they reviewed the Cybersecurity Program from a programmatic perspective and accordingly the FFT did not require access to information otherwise restricted by security concern. Dr. Peterson commented that many of the efforts made to ensure cybersecurity also increase the reliability of software and hardware systems in general as by protecting from malicious behavior one is also protecting against the unintentional mistakes that all humans make.

➤ Spent Fuel Pool Systems - the DCISC FFT walked down the system with the system engineer and found the system in generally good condition. The DCISC representatives inspected instrumentation that has been added to the spent fuel pools as part of the post Fukushima NRC orders to allow precise reading of the pool levels from a display that can be accessed during an emergency. Mr. McWhorter stated in the future data on the level of the pools will also be available in the Control Room. He reported that each spent fuel pool has two of the new level reporting systems installed. The spent fuel pools have also been modified in accordance with the FLEX initiative to provide a new connection, controlled by a valve, to enable the addition of make-up water from the Refueling Water Storage Tank, the Condensate Storage Tank serving the Fire Water System and from the Raw Water Reservoirs located behind and above the plant.

➤ Meet with DCPD Director - Dr. Peterson met with the Director of Nuclear Services.

➤ Large Transformers - the FFT reviewed the status of the large main auxiliary and start-up transformers located behind the power block area and found all those transformers to be in good health. Mr. McWhorter stated the initiatives to make repairs to the large transformers have been completed and the transformers are expected to remain health through the end of the current operating licenses. Insulators have been changed and regular cleaning of transformer insulators has been initiated and there have been no transformer flashover events since 2013.

Following Mr. McWhorter's report, Ms. Sherry Lewis was recognized. In response to Ms. Lewis observation concerning the Fire Protection Program, information for which was included within the four systems described by Mr. McWhorter in his report on the System Engineering Program, Mr. McWhorter replied that the White health status for the Fire Protection Program relates to several metrics and while most of a program's metrics may be in Green status, a few in White or Yellow can change the categorization of the entire program. For the Fire Protection Program, the White status was primarily driven by the back-up system engineer position being unfilled at present and multiple fire protection procedures and engineering evaluations still being revised to support implementation of NFPA 805 regulations. He replied to Ms. Lewis' observation concerning the Fire Protection Program by stating that this was not a program deficiency and did not mean the NFPA 805 requirements were not met because a large number of engineering evaluations were planned to be made after the NFPA Program was commenced in order to assure its full and effective implementation. In response to Ms. Lewis inquiry about the high rate of turnover for employees discussed during Mr. McWhorter's review of the System Engineering Program, Mr. McWhorter stated the turn over occurred amongst Operations and Engineering personnel as they have skill sets and training that permit them to move readily to other areas within the DCPD organization and, with reference to the System Engineering Department, personnel once assigned to System Engineering Department generally remain employed in some capacity at DCPD.

Upon a motion by Dr. Budnitz, seconded by Dr. Lam the March 2-3, 2018 Fact Finding Report was accepted and its transmittal to PG&E authorized.

XIX ADJOURN MORNING MEETING

The Chair adjourned the afternoon meeting of the Committee at 11:58 A.M.

XX RECONVENE FOR AFTERNOON MEETING

Dr. Lam convened the afternoon meeting of the DCISC at 1:05 P.M. He introduced the other Members and welcomed members of the public present in the audience and those following the meeting by the streaming video available through a link on the Committee's website at www.dcisc.org or at www.slospan.org.

XXI COMMITTEE MEMBER COMMENTS

There were no comments by Members at this time.

XXII PUBLIC COMMENTS AND COMMUNICATION

The Chair invited any comments from members of the public.

Mr. Howard Green was recognized. Mr. Green stated he was a retired computer engineer who attended the DCISC's public tour held the previous day. Mr. Green stated he watched the Committee's discussion of the letter in support of SB 1090 and he read the letter online on the Committee's website. Mr. Green stated he believes that the letter might have been more effective had the Committee's letter better emphasized the fact that, while it remained interested in all aspects of the legislation the Committee believed it to be appropriate and within its scope to only take a position on the aspects of the legislation that relate to the Employee Retention Program.

Dr. Gene Nelson of Californians for Green Nuclear Power was recognized. Dr. Nelson stated his group was the lone adverse party to Decision 18-01-022 which provides for the retirement of DCP by 2025 and he stated that Californians for Green Nuclear Power representatives testified against SB 1090 at several State Senate committee hearings. Dr. Nelson stated that while he found the DCISC's letter in support of SB 1090 to be balanced, he continues to have concern that regarding any form of advocacy for or against the closure of DCP by the DCISC and he stated in any such context the DCISC should adopt a neutral tone.

Ms. Rochelle Becker of the Alliance for Nuclear responsibility was recognized. Ms. Becker stated she had just received information that the next hearing on SB 1090 is scheduled in the State Assembly on June 27, 2018.

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

Dr. Lam requested Mr. Harbor to continue with the informational presentations requested of PG&E by the Committee for the public meeting.

Mr. Harbor introduced Director of Nuclear Work Management, Mr. Dennis Petersen, and reported Mr. Petersen has more than 30 years of experience in the nuclear industry and held a Senior Reactor Operator License and has held leadership roles in DCP's Operations and Quality organizations.

Performance during the 20th Refueling Outage for Unit-2 (2R20) including Key Activities, Performance Indicators, Results Achieved, Fuel and Steam Generator Inspection Results and Open Items.

Mr. Petersen stated in his presentation he would review key activities during the twentieth refueling outage for Unit-2 (2R20) including performance indicators, results of inspection and any open items. He reported 2R20 commenced on February 11, 2018 and

concluded March 22, 2018, which was an improvement on the goal set by the DCPD Business Plan. He reviewed performance measures during 2R201 as follows:

<u>Performance Measure</u>	<u>Goal</u>	<u>Actual</u>
Serious Near Hit Event	0	0
Nuclear Safety Event	0	0
Site Clock Resets	0	0
Outage Duration (days)	40	39
Power Ascension (days)	5	4.42

In response to Dr. Peterson's inquiry, Mr. Petersen stated then when a goal is established for outage duration under the Business Plan, the schedule established includes contingency margins which typically include 10% -15% extra time for discovery of emergent work during an outage. For 2R20, all but one day of that margin was used.

Mr. Petersen reviewed key activities during 2R20 as follows:

- Reactor Coolant Pump 2-4 motor overhaul including stator replacement.
- Rod control cluster assembly guide tube swaps (7).
- Thimble tube replacements (13).
- Integrated Leak Rate Test.
- Residual Heat Removal (RHR) suction weld overlay.
- 500kV output breaker 632 replacement.
- 230kV switch 211-2 overhaul.
- 480V vital bus F breaker replacements.
- High pressure rotor blade replacements.
- Feedwater pump 2-2 turbine overhaul.

Mr. Petersen reported during 2R20, a defense-in-depth outage safety strategy was maintained to ensure key safety functions were satisfied and very few changes were required to the outage safety schedule which he described as the mark of a good plan. He described and briefly discussed the high risk and infrequently performed test and evolutions performed during 2R20 including:

- Vital bus transfer and engineered safeguards testing.
- Performance of heavy lifts over reactor core.
- Draining to lowered reactor coolant inventory for reactor disassembly and reassembly.
- Draining to reduced reactor coolant inventory for vacuum refill of the reactor coolant with 230kV power unavailable.
- Integrated Leak Rate Test of Containment.
- Initial criticality of the new reactor core

Mr. Petersen reviewed results achieved during 2R20 including:

- Integrated Leak Rate Test.
- Residual Heat Removal System suction structural weld overlay.
- HP turbine blade replacement.
- Line ownership of radiation dose which achieved a result of 24.11 person rem for the outage which was the best performance in DCP's history and for which the plant received an award for "As Low As Reasonably Achievable" (ALARA) performance from the North American Technical Center Board.
- Vendor performance.
(Westinghouse/Siemens being key vendors with excellent performance.)
- Improved Outage Scope Review team to address issues and get better alignment between key managers and the plant leadership team before proceeding with work discovered during the outage.
- Excellent fuel handling equipment reliability.
- Use of Microsoft OneNote for Outage Control Center and maintenance turnovers which allowed a large numbers of persons to use OneNote software to enter information to the same document.

In response to Dr. Peterson's question, Mr. Petersen stated DCP's use of software such as OneNote must confront significant challenges including revision control and development of work packages for use within the plant. During his presentation Mr. Petersen displayed photos of work on the reactor cavity, the high pressure turbine and in the transformer yard.

Mr. Petersen reported fuel inspection results and steam generator inspection review included no fuel defects identified and no significant fuel findings; the steam generators were not inspected nor were inspections required. Follow up items from the outage include electrical maintenance preparation of work packages and execution, Operations staffing strategy to ensure the necessary persons and crews are available for certain evolutions, and reactor cavity clarity. Mr. Petersen reported that upon refill of the reactor cavity, for reasons not yet understood, the clarity of the water was not sufficient to start moving fuel into the core. He reported there was nothing different from past outages in the source of the water and the issue, which was rectified using chemicals and filtration, is suspected to be chemical in nature and may be related to a localized pH difference which caused a crud burst of some kind. He reported DCP encountered a similar issue some years ago and the issue has occurred at other plants.

In response to Dr. Lam's inquiry, Mr. Petersen reported approximately 375 temporary maintenance workers were engaged for 2R20 and 1,000 contract personnel were on site for the outage. He reported the level of training required for these workers depends upon their experience within the nuclear industry and the industry shares a database of individual worker qualifications. In response to Dr. Budnitz' inquiry, Mr. Petersen confirmed that during 2R20 there were no interactions with Unit-1 which continued in operation.

Following Mr. Petersen's presentation, Dr. Gene Nelson of Californians for Green Nuclear Power was recognized. Dr. Nelson stated 26 years ago he developed a prototype tablet-based computer system for use by the nuclear power industry which he stated had advantages but was apparently ahead of its time. He remarked that utilizing tablet-based technology has great advantages but also a huge implementation cost. Dr. Nelson contrasted the experience of DCPD with its replacement of its steam generators with that of the San Onofre Nuclear Generating Station.

Ms. Rochelle Becker of the Alliance for Nuclear Responsibility was recognized. Mr. Petersen and Mr. Harbor clarified, in response to Ms. Becker's inquiry that the replacement stator he referred to in his presentation was for a reactor coolant pump and not the main generator.

Dr. Peterson recognized the presence in the audience of Mr. Ron Alsop, Emergency Services Manager for the County of San Luis Obispo's Office of Emergency Services.

XXIV INFORMATIONAL DISCUSSION BY COMMITTEE MEMBERS AND CONSULTANTS

Committee Discussion of Post-Shutdown Roles Matrix of Areas for Review with reference to 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.

Consultant McWhorter called the Members attention to a Matrix which he prepared with the assistance of Consultant Wardell as a tool to identify the several areas for which DCISC continued or initial review might be appropriate following the cessation of generation operations by DCPD, with indications of what systems are important to safety or which affect safety systems, based upon items on the DCISC's Open Items List. The Matrix identified four periods of time after cessation of generation for possible review activities which Mr. McWhorter described and briefly discussed as follows:

- Column "A" - prior to fuel removal from reactor vessel (30-60 days anticipated duration).
- Column "B" - after fuel removal from reactor but prior to fuel removal from the spent fuel pool (7-10 years anticipated duration).
- Column "C" - after fuel removal from spent fuel pool with fuel stored at the ISFSI with decommissioning in progress (tbd).
- Column "D" - after fuel removal from the spent fuel pool with fuel stored at the ISFSI and decommissioning complete (indefinite).

Mr. McWhorter briefly with the Members reviewed the possible interpretation and application of the Committee's Restated Charter from the CPUC to each of these proposed phases.

Dr. Lam stated that while he believes this discussion may have merit for the benefit of the public he is hesitant to enter into a discussion regarding the application of the Restated Charter to the continuance of the DCISC as to do so may appear to be self-serving and the Committee does not know the positions of the Governor or the California Attorney General on this matter and it is entirely up to the CPUC and the entities that appoint its members as to whether the Committee should continue after DCPG ceases generating electricity. Dr. Peterson observed there may be uncertainty about the application of the Restated Charter following cessation of generation operations and Dr. Peterson observed he believes the Committee has an obligation to gather information to inform a decision on the matter. Mr. Rathie remarked that the genesis for this discussion came from comments by members of the public.

The Members discussed the level of risk present following removal of all fuel from the spent fuel pools but while fuel remains on site at the ISFSI. Dr. Peterson suggested that Column "D" be revised to indicate that if the Committee were to continue during that period there might be certain activities to review but the effort to do so would be greatly reduced. Mr. McWhorter observed that any decision about a role in the time frame of Column "D" might be deferred and he remarked that in his view the Restated Charter very likely would encompass review activities during the period identified in Column "A" but those activities in Column "B" might need to be addressed sooner than those for Columns "C" or "D". **Dr. Budnitz remarked that for Line 18 of activities to be reviewed entitled "Interface Between Security and Safety" for Column "C" the response should be "Yes."**

Dr. Budnitz stated his opinion that the Committee has an obligation to make a recommendation about a potential role to review decommissioning of the plant following cessation of generation operations and the Committee should engage in that debate now and settle, if possible, upon a recommendation to the CPUC and the entities that appoint its members. He stated his opinion that an appropriate role exists for the DCISC through the period identified on the Matrix by Column "C" although the work of the Committee would be very different during that period than it performs now when the plant is operating. Dr. Budnitz stated that if the Committee continues during the period after generation ceases it would continue to perform a role independent of PG&E and the NRC and continue to provide an additional level of review and to make reports to the citizens of California. He stated the Committee would be serving the CPUC which created it and the entities which appoint its members as well as the citizens of California by immediately sending a letter to describing the scope and rationale for a post generation role in reviewing activities during decommissioning.

Dr. Lam stated his opinion a letter such as that described by Dr. Budnitz would be premature as the issue is not yet ripe for consideration. Dr. Budnitz replied and stated there may be an ambiguity as to the meaning of the term "operational safety" as used in the Restated Charter and the Committee has the obligation to tell the CPUC and its appointing authorities what the Committee believes that term means and the implications of the Committee's interpretation sooner rather than later and if new information emerges in the future it can be dealt with at that time.

Dr. Peterson remarked that the Committee has also identified the possibility of engaging a consultant on an *ad hoc* basis to assist it in better understanding specific activities that will occur during decommissioning and he agreed there is an important need to clarify the role of the DCISC under the Restated Charter once the plant has shut down. **Dr. Peterson suggested this item be placed on the October 2018 agenda for further discussion.** Mr. Rathie reported that Dr. David Victor, the Chair of the San Onofre Community Engagement Panel, has accepted the Committee's invitation to attend the October 2018 public meeting to discuss the experiences and insights of the panel.

Dr. Budnitz stated that prior to the October 2018 public meeting, he would draft a letter setting forth his view of a proposed position based on the continuance of the Committee through the period identified in the Matrix by Column "C" for the consideration of the other Members of the Committee. Dr. Lam stated his belief that more deliberation would be beneficial before the Committee takes a position on the matter. **Dr. Budnitz stated he would provide the letter to the office of the DCISC Legal Counsel for review and a determination whether it would be appropriate under California's open meeting laws to distribute it to the other Members and if so, the distribution would be from the Office of Legal Counsel.**

Following the Members discussion, Ms. Rochelle Becker of the Alliance for Nuclear Responsibility was recognized. Ms. Becker stated she agreed with the position that the matter of continuing the DCISC during the period following cessation of operations might be deferred as PG&E will be submitting a filing to the CPUC concerning decommissioning DCPD during the spring of 2019 and that might be a more appropriate time to address the matter. She stated the San Onofre Community Engagement Panel may be able to offer suggestions and she stated she is in support of the Committee's continuance after the cessation of generation activities to review issues related to decommissioning. Ms. Becker remarked, as someone who was involved and instrumental in forming the DCISC in the 1980's, she believes that the reasons the Committee was formed continue to support the reasons it should continue to exist following cessation of generation operations and she believes the continuance of the DCISC would have the full support of the Alliance for Nuclear Responsibility.

Mr. David Weisman of the Alliance for Nuclear Responsibility was recognized. He observed that the possibility that the plant could enter a prolonged period of "safe store" would have an effect on the duration of Column "C". Mr. Weisman observed that the Committee has set the date for its October 24-25, 2018 public meeting and Dr. Victor's appearance, and it will be important to attempt to coordinate the activities of the DCISC with those of the Diablo Canyon Community Engagement Panel, which usually schedules meetings for the last week of the month in order to attempt to get as many experts on decommissioning as close to the same place and at the same time. Mr. Weisman remarked that once what he described as "a spent fuel pool island" is established it may continue to exist for five or six years or longer and will continue to require personnel and equipment to maintain the functionality of the pool. Mr. Weisman stated he agreed with those who have advised that the matter of the Committee taking a position on continuing activities after cessation of generation could be put over to October 2018.

Dr. Gene Nelson of Californians for Green Nuclear Power was recognized. Dr. Nelson observed DCPD has routinely operated in the top quartile of the nuclear industry for 34 years and he remarked it was his belief it will continue to do so through 2025. He encouraged the DCISC to look at what is best for both the environment and the economy.

Dr. Peterson stated he was willing to also defer consideration of a decision to engage a consultant to assist the Committee in identifying decommissioning-related issues until the public meeting in October 2018. Dr. Budnitz observed that he has provided the names of four persons for consideration for that role and he invited any member of the public to suggest other potential candidates. **Dr. Peterson suggested a notice concerning the engagement of a consultant to review decommissioning be placed on the DCISC's website.**

Dr. Peterson left the meeting due to a previous commitment and the meeting continued with Drs. Lam and Budnitz making up a quorum.

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

Dr. Lam expressed the thanks of the Committee to the DCPD senior managers, and particularly to Mr. Garcia and Mr. Harbor and to the DCPD directors and managers who made presentations to the DCISC during this public meeting and also to the technicians of AGP Video who are responsible for audio and visual recording of the DCISC's meetings. The Chair also expressed the thanks and appreciation of the DCISC to the members of the public who attended and participated in this public meeting.

XXV ADJOURNMENT OF NINETIETH PUBLIC MEETING

There being no further business, the ninetieth public meeting of the Diablo Canyon Independent Safety Committee was adjourned by its Chair, Dr. Peter Lam, at 2:25 P.M.

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

MEETING DATE:	October 24, 2018
AGENDA ITEM:	V-A
AGENDA TITLE:	DCISC 28th Annual Report on Safety of Diablo Canyon Operations; July 1, 2017 - June 30, 2018

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

The Settlement Agreement creating the DCISC provided that “The Committee shall prepare an annual report and such interim reports as it deems appropriate, which reports shall include any recommendations of the Committee.” A draft report covering Fiscal Year 2017-2018 has now been prepared by Committee Members Budnitz, Lam and Peterson, with contributions from the Technical Consultants and Legal Counsel, and is presented at this meeting for consideration and adoption. This is the Committee’s twenty-eighth annual report.

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

RECOMMENDED COMMITTEE ACTION: Motion to approve the DCISC 2017-2018 Twenty-Eighth Annual Report on Safety of Diablo Canyon Operations and to forward same to PG&E for its response, and upon receipt of that response, submit and file the completed report as provided by the Settlement Agreement.

DIABLO CANYON
INDEPENDENT SAFETY COMMITTEE

TWENTY-EIGHTH ANNUAL REPORT
ON THE
SAFETY OF
DIABLO CANYON NUCLEAR POWER PLANT OPERATIONS

July 1, 2017 - June 30, 2018

Volume I – MAIN REPORT

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Approved: October 24, 2018

**The DCISC invites questions and comments on this report.
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Diablo Canyon Independent Safety Committee
TWENTY-EIGHTH ANNUAL REPORT ON THE SAFETY OF
DIABLO CANYON NUCLEAR POWER PLANT OPERATIONS

July 1, 2017 - June 30, 2018

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DIABLO CANYON INDEPENDENT SAFETY COMMITTEE

AGENDA TRANSMITTAL FORM

MEETING DATE:	October 24, 2018
AGENDA ITEM:	V-B
AGENDA TITLE:	Update on Financial Matters and DCISC Activities During 2018-2019

CONSENT [] ACTION [] INFORMATION [X]

Staff Summary: It is expected that the Committee Members will hold a discussion regarding Committee financial matters and DCISC planned activities during 2018 and 2019.

The Actual and Proposed DCISC Fact-Finding and Public Meeting Items, with Key Dates, prepared by Committee Consultant 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. Presentation on the State of the Plant
5. Update on Nuclear Safety Culture, Safety Conscious Work Environment and Employee Concerns Program
6. Discussion and Possible Direction re a Future Role for DCISC After Expiration of Operating

Licenses for DCPD Including Possible Engagement, on an *Ad Hoc* Basis, of a Consultant to Assist in Identification of Decommissioning-related Issues

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

1. Meet with NRC Resident Inspector (NR-4)
2. Meet with DCPD Officer
3. Update on Emergency Planning, including (EP-2; EN-19):
 - Results of the October 24 evaluated Emergency Exercise
 - Management of Emergency Response Staffing in Years Immediately Prior to Cessation of Operations
 - Emergency Planning Requirements Following Decommissioning
4. Detailed Review of Preventative Maintenance activities eliminated, reduced in frequency, and/or reduced in scope under the Preventative Maintenance Optimization Project (July Fact-finding Meeting follow-up; EN-19)
 - Provide lists of activities eliminated, reduced in frequency, and/or reduced in scope
 - For 5-10 specific examples in each category, provide copies and review results of detailed evaluations.
5. Update on Maintenance Department Performance and Department Excellence Plans (CM-13)
 - Plant Tour of Active Maintenance Areas/Maintenance Activities
6. Update on Tracking and Resolution of INPO Areas for Improvement and Mid-cycle Assessment (NS-9)
7. Review Health of Emergency Diesel Generators (EN-16, SE-49)
 - Overall EDG Issues and Health
 - Status of the EDG Reliability Improvement Plan
 - Walkdown of EDGs with System Engineer
8. Update on Decommissioning Planning (DEC-1)
 - Project Organization
 - Preparation of Filings for Costs Approvals
 - Future Operating License Amendments
 - Future Spent Fuel Campaigns
 - Low-level Radioactive and Non-radioactive Waste Disposal
9. Attend PHPC, Daily/Weekly Planning, or other routine management meeting (but not the CARB or PHC) (EN-20)
10. Update on Benchmarking Programs (EN-19)
11. Review Health of Reactor Coolant Pumps and Seals (EN-16)

December 12-13, 2018 Fact-finding Meeting (D.5) (PFP, RFW)

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

February 13-14, 2019 Public Meeting (B.6)

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

April 17-18, 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 (PFP, RDM)

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

September 10-11, 2019 Fact-finding Meeting (RJB, RDM)

October 23-24, 2019 Public Meeting

DCPP 2018-2019 Key Dates

NSOC Meetings (DCISC invited only to the 2 hour exit meeting on the final day)
October 15-18

Refueling Outages

1R21 February 10 – March 15, 2019

2R21 September 29 – December 8, 2019

Emergency Preparedness

Bravo NRC Evaluated Biennial Exercise 10/14/18

Delta Full Scope Drill 12/5/18

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE	
AGENDA TRANSMITTAL FORM	
MEETING DATE:	Octobert 24, 2018
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 Wardell.	
RECOMMENDED COMMITTEE ACTION: As appropriate, provide direction.	

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

Open Item Type:

M= Monitor

F = Follow-up

I = Issue

Items in 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.]	7/11FF 1/14FF 8/14FF	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 11/15FF – satisfactory.] [Reviewed QV assessment of 2R20 outage. Some mispositioning issues. Follow up on resolution.] <i>[Reviewed 7/18FF – satisfactory.]</i>	11/15FF 4/18FF <i>7/18FF</i>	<i>2Q19FF</i>
CO-11	M	Operator concerns and issues – review periodically the status of operator concerns and issues. [Reviewed Ops Human Performance & Ops Excellence Plan 8/16FF – satisfactory.] [Reviewed Ops Dept. performance 12/17FF – sat.] The DCISC team concluded [2/18PM] plans are in place to address areas identified for improvement in the Operations Department and the DCISC should continue to review Operations Department performance on a regular basis.	8/16FF 12/17FF	12/18FF
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	12/18 FF
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 staffing adequacy 8/17FF – satisfactory.] [Reviewed at 3/18FF – satisfactory.]	6/17PM 8/17FF 3/18FF	6/18PM 4Q18FF
CM		Conduct of Maintenance (CM)		

October 2018 Public Meeting

FF = Fact-finding Meeting

PM = Public Meeting

Q=Quarter

CM-7	I	Review PG&E's progress in complying with (1) the amendment to 10CFR50.55a, which provides the requirements for ISI of containment structures (degradation) and (2) ASME Code requirements for steel liner weld inspections. [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. [Reviewed Trouble-shooting 3/16FF - satisfactory.]	3/16FF 9/17FF	4Q18FF
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.	6/16PM 8/17FF	4Q18FF
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	1Q19FF
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.]	3/17FF 7/17FF 10/17FF	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. Consider public participation in drills. <i>[Reviewed MIDAS 8/18FF – satisfactory.] [Met with SLO OES – satisfactory but potential for reduced monies. Discuss at 10/18PM.]</i>	1/17FF 2/17PM <i>8/18FF</i>	Next <i>evaluated</i> exercise <i>10/24/18</i> <i>RJB & RWM</i>
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 <i>9/18FF</i>	<i>2Q19FF</i> 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	3Q18FF 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.] [2019 NSOC schedule not yet available.]	11/15FF 3/17FF	Next meeting 11/18FF
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.]	9/17FF 11/17FF	
RP		Radiation Protection (RP)		
RP-3	M	Regularly review outage RP performance. <i>[Reviewed 2R20 outage performance – satisfactory.]</i>	10/17PM <i>6/18PM</i>	<i>1R21RFO</i>
RP-12	M	Review annual DCPD radioactivity release report each year. Review at Summer or Fall FFs. <i>[Reviewed radiation release reports 7/18FF – satisfactory.]</i>	7/17FF 7/18FF	<i>3Q19FF</i>
QP		Quality Programs (QP)		
QP-3	M	Review the activities, organization and results of QV audits as well as PG&E's outside biennial audits, including timeliness of corrective actions. Review annually – include 4 th quarter QPAR with yearly results.	3/17FF 1/18FF	4Q18FF
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.] <i>[Reviewed nuclear procurement process 7/18FF – satisfactory.]</i>	6/14FF 7/17FF <i>7/18FF</i>	Each RFO
ER		Equipment Reliability and Life Cycle Management (ER)		

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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	1Q19FF
ER-6	M	Health monitoring [new item]	6/18PM	4Q18FF
ER-7 (Moved from CM-14)	M	Use and Plans for Use of Wireless Technology within the Power Block – DCCP 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	1Q19FF
OE		Organizational Effectiveness & Development (OE)		
OE-1	F	Review DCCP Operating Plan each January after development. [Reviewed at 1/16FF & on agenda for 2/16PM.] [Reviewed at 3/18FF – satisfactory.]	2/17PM 3/18FF	2/19PM
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-47	F	The DCISC concluded the station continues to set high performance goals and is maintaining effective control of secondary water and is responding proactively to identify issues. Review all Chemistry in future. [Reviewed 9/15FF – excellent performance.] [Reviewed at 4/18FF – satisfactory.] [Close & monitor chemistry KPIs.]	9/15FF 4/16FF 8/18 FF	Close?
SE-49	F	Emergency Diesel Generators (EDGs) – [Reviewed at 1/17FF: U1 Green, U2 White.] [Review EDG Reliability Program at next EDG FF].	7/16FF 1/17FF 12/17FF	4Q18FF
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.]	6/17PM 4/18FF	1R21 2R21
SE-53	F	Monitor salt deposition on external equipment, systems, EDG, ventilation systems, transformers, etc. [Check with DCCP on data availability beforehand.] [Determine rate of salt deposition.] [Reviewed at 5/18FF, no flashover issues since 2013.]	4/15FF 7/16FF 5/18 FF	3Q20 FF
SG		Steam Generator Performance (SG)		

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 1Q19FF
OM-4	M	Review Outage Safety Plan, safety margin trends, outage results, including clearances, following each outage at FFs and PMs.	5/16FF	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	2Q19FF
SF		Independent Spent Fuel Storage Installation – ISFSI (SF)		
SF-1		Monitor ISFSI operations, including cask transfer. Review following next campaign. <i>[Reviewed ISFSI 7/18FF – satisfactory.]</i>	11/17FF 7/18FF	7/19FF
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	3Q19FF
SF-3	M	<i>Review the seismic adequacy of ISFSI in its license extension. Use latest seismic analysis.</i>	6/18PM	4Q18FF 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	3Q18FF 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. <i>[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.]</i>	2/16PM 5/18FF 7/18FF	1Q19FF PFP
FP		Fire Protection (FP)		

FP-5	M	Review 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 and watches.]	3/17FF 7/17FF 11/17FF	1Q19FF
FP-6	M	Monitor DCCP's process of converting to the National Fire Protection Association's Regulation 805 (NFPA 805) standard. [Reviewed at 5/16FF – NRC approval issued. DCCP has a year to complete procedures, training, etc.] Modifications [for NFPA-805] to the plant were completed in November 2016 and procedures and training will need to be complete by April 2017. The DCCP should next review this issue in late 2018 following implementation of the Unit 2 self-approval process, which is planned for June 2018. <i>[Reviewed at 8/18FF – satisfactory. Close this item and review fire protection as per FP-5 above.]</i>	9/17FF 10/17PM 8/18 FF	<i>Close?</i>
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.]	12/14FF 12/14FF	3or4Q18 FF
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.]	9/16FF 12/16FF <i>8/18 FF</i>	3or4Q19 FF
NR		Nuclear Regulatory Commission Items (NR)		
NR-3	M	Monitor the Non-Cited Violation Tracking & Trending Program annually at the Jan/Feb Public Meetings.	3/year	Each PM
NR-4	F	Meet with NRC Resident Inspectors regularly. [Note: Next Action changed to "Regularly."]	Most FFs	Regularly
BDB		Beyond Design Basis Events (e.g. Fukushima Event)		
BDB-6	F	DCCP 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 DCCP 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. [Reviewed at 3/18 FF. DCCP is forming decommissioning organization to look into decommissioning options.]	10/16PM 1/17FF 10/17PM 3/18FF	4Q18FF
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.]	10/17PM	<i>Annually after 6/18PM</i>

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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.	10/17PM	4Q18FF
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.]	12/16FF 8/17FF 1/18FF	4Q18FF
		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
6/17 PM 2	F	Mr. Wardell recommended that the DCISC review the Westinghouse report [on GSI-191: Containment sump debris] when it is available. [DCPP switching to deterministic analysis, no need for Westinghouse probabilistic report.] [Reviewed at July 2018 FF: could be closed by NRC in 2019. Close here.]	6/17PM 7/18FF	Close
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.]	10/17PM	10/18PM
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.	2/18PM	4Q18FF
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.	2/18PM	4Q18FF
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.]	2/18PM 9/18FF	10/18PM 4Q18FF
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.	2/18PM	4Q18FF

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.]	6/18PM	10/18PM
2	F	The FFT concluded the Operating Plan contained the appropriate focus on initiatives and key metrics and the DCISC should continue to monitor the Operating Plan in the future. [Close here. Review of Operating Plan already included in Item OE-1.]	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.	6/18PM	Monitor
4	F	Mr. McWhorter reported the FFT concluded the DCISC should continue to monitor the effectiveness of the Employee Retention Program.	6/18PM	Monitor
5	F	Mr. Wardell stated the DCISC can remove this topic [Control Room Ventilation System] as a special issue but should retain review of the system as a periodic item on the Open Items List. [Completed – close.]	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.	6/18PM	4Q18FF
6	F	In response to Consultant McWhorter's inquiry, Mr. Nimick stated he estimated about a third of the projects submitted for review were cancelled and he agreed to provide the final list of cancelled projects to date to the DCISC.	6/18PM	Awaiting DCP
7	F	Mr. Nimick reported the team has reviewed approximately 60% of the 12,000 maintenance tasks and he offered to review the preventive maintenance optimization efforts with the DCISC during the scheduled July fact-finding visit. [Reviewed at 7/18FF – close.]	6/18PM	Close
8	F	Mr. Nimick stated he would need to check on the estimated cost of the replacement of the main annunciator and he agreed to provide that information to the DCISC. Mr. Harbor confirmed that the stator project will be included in the current rate case filing. Mr. Nimick stated he would provide the DCISC with a full listing of the cancelled projects and Mr. Harbor remarked that the plant would need to consult with PG&E's Legal Department before providing information on the cost of the cancelled projects.	6/18PM	Awaiting DCP
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 DCP through the end of its licensed operation.	6/18PM	4Q18FF
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	4Q18FF

11	F	Mr. McWhorter reported a notification for unbraced cabinets was prepared and entered into the Corrective Action Program and the DCISC will follow up on this issue at its July 2018 fact-finding. [Reviewed 7/18FF – satisfactory. Close and continue to review as per Item SC-12.]	6/18PM	Close
12	F	Dr. Budnitz remarked that for (the DCISC draft Decommissioning Matrix) Line 18 of activities to be reviewed entitled “Interface Between Security and Safety” for Column “C” the response should be “Yes.”	6/18PM	Close
13	F	Dr. Peterson suggested this item [clarify the role of the DCISC under the Restated Charter] be placed on the October 2018 agenda for further discussion. [Item included on 10/18PM agenda. Close.]	6/18PM	Close
14	F	Dr. Budnitz stated that prior to the October 2018 public meeting, he would draft a letter setting forth his view of a proposed position based on the continuance of the Committee through the period identified in the Matrix by Column “C” for the consideration of the other Members of the Committee. Dr. Lam stated his belief that more deliberation would be beneficial before the Committee takes a position on the matter. Dr. Budnitz stated he would provide the letter to the office of the DCISC Legal Counsel for review and a determination whether it would be appropriate under California’s open meeting laws to distribute it to the other Members and if so, the distribution would be from the Office of Legal Counsel.	6/18PM	?
15	F	Dr. Peterson stated he was willing to also defer consideration of a decision to engage a consultant to assist the Committee in identifying decommissioning-related issues until the public meeting in October 2018. Dr. Budnitz observed that he has provided the names of four persons for consideration for that role and he invited any member of the public to suggest other potential candidates. Dr. Peterson suggested a notice concerning the engagement of a consultant to review decommissioning be placed on the DCISC’s website. [Completed – close.]	6/18PM	Close

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 – Dec 2017
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 – Jan 2015
Refueling Equipment – Mar 2017
RCS Process Control – Jun 2013
RHR – Mar 2016
Safety Injection Pumps Mar 2015
Spent Fuel Pool – May 2018
Steam Generators – Nov 2014

DCPP Programs Reviewed Periodically
AOV – May 2018
Benchmarking – May 2015 (review biennially)
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 **Sep 2018**
Door Life Cycle Management Plan – Mar 2014
Emergency Preparedness Exercises – 2/17PM
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 – Mar 2016
Long-Term Capital Planning Process – Dec 2016
Margin Management – Jan 2017 [Next review 2Q18FF]
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
Trending Analysis – Jan 2014
Troubleshooting – Jan 2015
Tsunami Hazard Analysis – Sep 2017

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

Open Item Type:		M= Monitor	F = Follow-up	I = Issue	Items in 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.]			7/11FF 1/14FF 8/14FF	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.] <i>[Reviewed 7/18FF – satisfactory.]</i>			11/15FF 4/18FF 7/18FF	2Q19FF
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.			8/16FF 12/17FF	12/18FF
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	12/18 FF
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 staffing adequacy 8/17FF – satisfactory.] [Reviewed at 3/18FF – satisfactory.]			6/17PM 8/17FF 3/18FF	6/18PM 4Q18FF
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. [Reviewed Trouble-shooting 3/16FF - satisfactory.]	3/16FF 9/17FF	4Q18FF
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.	6/16PM 8/17FF	4Q18FF
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	1Q19FF
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.]	3/17FF 7/17FF 10/17FF	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. Consider public participation in drills. [Reviewed MIDAS 8/18FF – satisfactory.] [Met with SLO OES – satisfactory but potential for reduced monies. Discuss at 10/18PM.]	1/17FF 2/17PM 8/18FF	Next evaluated exercise 10/24/18 RJB & RWM
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	2Q19FF 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	3Q18FF 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.] [2019 NSOC schedule not yet available.]	11/15FF 3/17FF	Next meeting 11/18FF
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.]	9/17FF 11/17FF	
RP		Radiation Protection (RP)		
RP-3	M	Regularly review outage RP performance. [Reviewed 2R20 outage performance – satisfactory.]	10/17PM 6/18PM	1R21RFO
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 4th quarter QPAR with yearly results.	3/17FF 1/18FF	4Q18FF
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	1Q19FF
ER-6	M	<i>Health monitoring [new item].</i>	6/18PM	4Q18FF
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	1Q19FF
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-47	F	The DCISC concluded the station continues to set high performance goals and is maintaining effective control of secondary water and is responding proactively to identify issues. Review all Chemistry in future. [Reviewed 9/15FF – excellent performance.] [Reviewed at 4/18FF – satisfactory.] [Close & monitor chemistry KPIs.]	9/15FF 4/16FF 8/18 FF	Close?
SE-49	F	Emergency Diesel Generators (EDGs) – [Reviewed at 1/17FF: U1 Green, U2 White.] [Review EDG Reliability Program at next EDG FF].	7/16FF 1/17FF 12/17FF	4Q18FF
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.]	6/17PM 4/18FF	1R21 2R21
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)		

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 1Q19FF
OM-4	M	Review Outage Safety Plan, safety margin trends, outage results, including clearances, following each outage at FFs and PMs.	5/16FF	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	2Q19FF
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	7/19FF
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	3Q19FF
SF-3	M	Review the seismic adequacy of ISFSI in its license extension. Use latest seismic analysis.	6/18PM	4Q18FF 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	3Q18FF 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	1Q19FF PFP
FP		Fire Protection (FP)		

FP-5	M	Review 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 and watches.]	3/17FF 7/17FF 11/17FF	1Q19FF
FP-6	M	Monitor DCP's process of converting to the National Fire Protection Association's Regulation 805 (NFPA 805) standard. [Reviewed at 5/16FF – NRC approval issued. DCP has a year to complete procedures, training, etc.] Modifications [for NFPA-805] to the plant were completed in November 2016 and procedures and training will need to be complete by April 2017. The DCP should next review this issue in late 2018 following implementation of the Unit 2 self-approval process, which is planned for June 2018. [Reviewed at 8/18FF – satisfactory. Close this item and review fire protection as per FP-5 above.]	9/17FF 10/17PM 8/18 FF	Close?
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.]	12/14FF 12/14FF	3or4Q18 FF
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.]	9/16FF 12/16FF 8/18 FF	3or4Q19 FF
NR		Nuclear Regulatory Commission Items (NR)		
NR-3	M	Monitor the Non-Cited Violation Tracking & Trending Program annually at the Jan/Feb Public Meetings.	3/year	Each PM
NR-4	F	Meet with NRC Resident Inspectors regularly. [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 DCP 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 DCP 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 DCP. [Reviewed at 3/18 FF. DCP is forming decommissioning organization to look into decommissioning options.]	10/16PM 1/17FF 10/17PM 3/18FF	4Q18FF
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.]	10/17PM	Annually after 6/18PM

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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.	10/17PM	4Q18FF
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.]	12/16FF 8/17FF 1/18FF	4Q18FF
		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
6/17 PM 2	F	Mr. Wardell recommended that the DCISC review the Westinghouse report [on GSI-191: Containment sump debris] when it is available. [DCPP switching to deterministic analysis, no need for Westinghouse probabilistic report.] [Reviewed at July 2018 FF: could be closed by NRC in 2019. Close here.]	6/17PM 7/18FF	Close
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.]	10/17PM	10/18PM
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.	2/18PM	4Q18FF
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.	2/18PM	4Q18FF
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.]	2/18PM 9/18FF	10/18PM 4Q18FF
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.	2/18PM	4Q18FF

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.]	6/18PM	10/18PM
2	F	The FFT concluded the Operating Plan contained the appropriate focus on initiatives and key metrics and the DCISC should continue to monitor the Operating Plan in the future. [Close here. Review of Operating Plan already included in Item OE-1.]	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.	6/18PM	Monitor
4	F	Mr. McWhorter reported the FFT concluded the DCISC should continue to monitor the effectiveness of the Employee Retention Program.	6/18PM	Monitor
5	F	Mr. Wardell stated the DCISC can remove this topic [Control Room Ventilation System] as a special issue but should retain review of the system as a periodic item on the Open Items List. [Completed – close.]	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.	6/18PM	4Q18FF
6	F	In response to Consultant McWhorter's inquiry, Mr. Nimick stated he estimated about a third of the projects submitted for review were cancelled and he agreed to provide the final list of cancelled projects to date to the DCISC.	6/18PM	Awaiting DCP
7	F	Mr. Nimick reported the team has reviewed approximately 60% of the 12,000 maintenance tasks and he offered to review the preventive maintenance optimization efforts with the DCISC during the scheduled July fact-finding visit. [Reviewed at 7/18FF – close.]	6/18PM	Close
8	F	Mr. Nimick stated he would need to check on the estimated cost of the replacement of the main annunciator and he agreed to provide that information to the DCISC. Mr. Harbor confirmed that the stator project will be included in the current rate case filing. Mr. Nimick stated he would provide the DCISC with a full listing of the cancelled projects and Mr. Harbor remarked that the plant would need to consult with PG&E's Legal Department before providing information on the cost of the cancelled projects.	6/18PM	Awaiting DCP
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 DCP through the end of its licensed operation.	6/18PM	4Q18FF
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	4Q18FF

11	F	Mr. McWhorter reported a notification for unbraced cabinets was prepared and entered into the Corrective Action Program and the DCISC will follow up on this issue at its July 2018 fact-finding. [Reviewed 7/18FF – satisfactory. Close and continue to review as per Item SC-12.]	6/18PM	Close
12	F	Dr. Budnitz remarked that for (the DCISC draft Decommissioning Matrix) Line 18 of activities to be reviewed entitled “Interface Between Security and Safety” for Column “C” the response should be “Yes.”	6/18PM	Close
13	F	Dr. Peterson suggested this item [clarify the role of the DCISC under the Restated Charter] be placed on the October 2018 agenda for further discussion. [Item included on 10/18PM agenda. Close.]	6/18PM	Close
14	F	Dr. Budnitz stated that prior to the October 2018 public meeting, he would draft a letter setting forth his view of a proposed position based on the continuance of the Committee though the period identified in the Matrix by Column “C” for the consideration of the other Members of the Committee. Dr. Lam stated his belief that more deliberation would be beneficial before the Committee takes a position on the matter. Dr. Budnitz stated he would provide the letter to the office of the DCISC Legal Counsel for review and a determination whether it would be appropriate under California’s open meeting laws to distribute it to the other Members and if so, the distribution would be from the Office of Legal Counsel.	6/18PM	?
15	F	Dr. Peterson stated he was willing to also defer consideration of a decision to engage a consultant to assist the Committee in identifying decommissioning-related issues until the public meeting in October 2018. Dr. Budnitz observed that he has provided the names of four persons for consideration for that role and he invited any member of the public to suggest other potential candidates. Dr. Peterson suggested a notice concerning the engagement of a consultant to review decommissioning be placed on the DCISC’s website. [Completed – close.]	6/18PM	Close

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 – Dec 2017
 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 – Jan 2015
 Refueling Equipment – Mar 2017
 RCS Process Control – Jun 2013
 RHR – Mar 2016
 Safety Injection Pumps Mar 2015
 Spent Fuel Pool – May 2018
 Steam Generators – Nov 2014

DCPP Programs Reviewed Periodically
 AOV – May 2018
 Benchmarking – May 2015 (review biennially)
 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 Sep 2018
 Door Life Cycle Management Plan – Mar 2014
 Emergency Preparedness Exercises – 2/17PM
 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 – Mar 2016
 Long-Term Capital Planning Process – Dec 2016
 Margin Management – Jan 2017 [Next review 2Q18FF]
 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

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Transformers, Large – May 2018
Trending Analysis – Jan 2014
Troubleshooting – Jan 2015
Tsunami Hazard Analysis – Sep 2017
Vibration Monitoring – Sep 2018

October 2018 Public Meeting FF = Fact-finding Meeting PM = Public Meeting Q = Quarter

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

MEETING DATE:	October 24, 2018
AGENDA ITEM:	VI-B
AGENDA TITLE:	Brief Remarks on Reactor Decommissioning & Proposed Changes to Decommissioning Regulations
CONSENT [] ACTION [] INFORMATION [X]	

Staff Summary: Brief remarks will be offered by Mr. Bruce Watson concerning the regulatory process for nuclear power plant decommissioning, including the roles of the Nuclear Regulatory Commission (NRC), the plant licensee, state and local government authorities, non governmental organizations and individual stakeholders. Mr. Watson is the Chief of the Reactor Decommissioning Branch of the Division of Decommissioning, Uranium and Waste Programs in the Office of Nuclear Material Safety and Safeguards of the NRC.

RECOMMENDED COMMITTEE ACTION: As appropriate



Bruce Watson is the Chief of the Reactor Decommissioning Branch in the Division of Decommissioning, Uranium Recovery and Waste Programs in the Office of Nuclear Material Safety and Safeguards at the U.S. Nuclear Regulatory Commission (NRC).

Mr. Watson has been with the NRC since March 2004. He has extensive experience in decommissioning of reactors and materials sites and was the technical lead for the license terminations at Trojan, Maine Yankee, Rancho Seco and Big Rock Point. In May 2010, Bruce was appointed as the Chief, Reactor Decommissioning Branch, and is responsible for power and research reactor, and complex materials, licensing and inspection programs.

Bruce has extensive international decommissioning experience. Bruce has been principal contributor on the development of decommissioning IAEA safety standards and US representative and speaker at IAEA Technical Meetings. He has served as the IAEA decommissioning expert for the Republic of Georgia and Switzerland Missions and is NRC's reactor decommissioning expert for the Bilateral Cooperation Agreements with France, Korea and Taiwan.

Prior to joining the NRC, his experience included management of complex defense decommissioning projects at Rocky Flats, Mound and Oak Ridge and international projects in Spain, Italy and the United Kingdom. Bruce has 20 years of reactor operating experience and served as the radiation protection manager at Calvert Cliffs and radiation safety director at DOE's Rocky Flats Environmental Technical Site.

Bruce has a B.S. from Virginia Tech and is certified by the American Board of Health Physics. He has 40 years of experience in health physics, including over 30 years of management experience.

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE	
AGENDA TRANSMITTAL FORM	
MEETING DATE:	October 24, 2018
AGENDA ITEM:	VII-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 June 2018.	
RECOMMENDED COMMITTEE ACTION: None, information item only.	

May
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

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

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

Date	Letter No.	Title
5/14/18	DCL-18-036	Change of Commitment Dates for Full Implementation of Open Phase Detection System
5/14/18	DCL-18-039	Pacific Gas and Electric Company (PG&E) Response to NRC Regulatory Issue Summary (RIS) 2018-02, "Preparation and Scheduling of Operator Licensing Examinations"
5/17/18	DCL-18-041, DIL-18-007	Emergency Plan and Emergency Plan Implementing Procedure Update

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
5/7/18	(OUO) Diablo Canyon Power Plant, Units 1 and 2 – NRC Independent Spent Fuel Storage Installation Security Inspection Report 05000275/2018401, 05000323/2018401, and 07200026/2018401 (OUO)

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		
4/10/18	2018-009	E-Plan Appendix A, E-Plan Section 1

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	SAPN 50870357	LTCA: DA-Undetected ECCS Interlock Fail
	SAPN 50947033	Effectiveness Eval for SAPN 50923422
	SAPN 50964666	EFEV for DEG 2-2 Broken Bolt RCE
5/4/18		Condition Report Backlog Curves
5/11/18		Condition Report Backlog Curves
5/18/18		Condition Report Backlog Curves
5/25/18		Condition Report Backlog Curves

May
List of Documents Transmitted Electronically

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

Date	Doc. No.	Title
		There is no QPAR for this month.
5/7/18	FileNet #180710010	2018 Quality Assurance Program Audit
5/22/18	FileNet #180360003	2018 Procurement Audit
5/10/18	Quality Verification Assessment # 181290011	Unit 2 Firewater Deluge Valve Replacement
		There is no new schedule for this month.

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 is no updated Quick Hit Self-Assessment (QHSA) Schedule for this month.
		There is no Formal Benchmarking and Self-Assessments Schedule for this month.
5/1/18	SAPN 50924173	Perform QHSA – Completed 2R20 orders
5/1/18	SAPN 50953576	IST Program OMN-16 Pumps QHSA
5/3/18	SAPN 50924171	Perform QHSA – Completed 1R20 orders
5/17/18	SAPN 50950724	2018 AD3.ID5 Assess Audit Results
5/17/18	SAPN 50973137	2R20 HU Quick Hit Self-Assessment
5/9/18	SAPN 50949669	Trip Report – PG&E Gas CAP Assessment
5/17/18	SAPN 50974248	Audit – Informal Trip Report SNC

May
List of Documents Transmitted Electronically

5/30/18	SAPN 50967020	Cyber Security Benchmarking – McGuire
5/30/18	SAPN 50980249	Informal Benchmark – Gateway Gen Station
5/31/18	SAPN 50957742	PWROG Proc Sub Comm Trip Report, Dec2017

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		Diablo Canyon Power Plant; Plant Performance Improvement Report; Achieving Results; Data: April 2018; Report Date: May 9, 2018
Station Initiative		
5/15/18		Learning Services Excellence Plan 2018; Generating Excellence
5/16/18		Our Path Forward – Organizational Effectiveness Excellence Plan
5/17/18		DCPP Excellence Plan; A Living Plan
5/18/18		Our Path Forward; Leadership Engagement in PI Processes
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.

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.

May
List of Documents Transmitted Electronically

N. Miscellaneous

Date	Title
	May NSOC Report for NSOC only.

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 201817	T+1 Performance Critique
	Week 201818	T+1 Performance Critique
	Week 201819	T+1 Performance Critique
	Week 201820	T+1 Performance Critique
	Week 201821	T+1 Performance Critique

P. Documents Previously Transmitted during the Month

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

June
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

Date	LBIE No.	Title
6/19/18	2018-008	M-1179, NSCA
6/19/18	2018-009	M-1179, RAFA

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

Date	Letter No.	Title
6/13/18	DCL-18-044 DIL-18-008	Emergency Plan Update
6/19/18	DCL-18-048	Owner's Activity Report for Unit 2 Twentieth Refueling Outage

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
6/8/18	Diablo Canyon Power Plant, Units 1 and 2 – NRC Biennial Problem Identification and Resolution Inspection Report 05000275/201808 and 05000323/2018008
6/25/18	Diablo Canyon Power Plant – Notification of an NRC Triennial Fire Protection Baseline Inspection (NRC Inspection Report 05000275/2018007 and 05000323/2018007) and Request for Information
6/29/18	Pre-submittal Meeting with Pacific Gas and Electric Company Regarding a License Amendment Request for Diablo Canyon Nuclear Power Plant, Units 1 and 2 (EPID L-2018-LRM-0041)

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		
1/30/18	2018-002	DCL-18-004, Errata for the DCPD MSA for Flooding Report DCM 1000025418, U2 ECCS Valve Stem Mounted Limited Switch Interlocks
3/15/18	2018-006	Mode 4 Ready for Restart
3/17/18	2018-007	Mode 2 Ready for Restart
6/5/18	2018-010	Revision to Inservice Testing Program Plan

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

Type	Doc. No.	Title
RCAs		There are no RCAs for this month.
ACE	SAPN 50971931	DA-Unit 2 fast fuse P22-FU-2212 blown

June
List of Documents Transmitted Electronically

Eff. Eval		There are no Effectiveness Evals for this month.
6/1/18		Condition Report Backlog Curves
6/8/18		Condition Report Backlog Curves
6/15/18		Condition Report Backlog Curves
6/22/18		Condition Report Backlog Curves
6/29/18		Condition Report Backlog Curves

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

Date	Doc. No.	Title
		There is no QPAR for this month.
6/26/18	FileNet # 180940011	2018 Operations and Technical Specifications Audit
		There is no new schedule for this month.
6/7/18	Technical Assessment #181570004	Technical Assessment of Calculation PGE-027-CALC-001 (Diablo Canyon Debris Laden Strainer Head Loss Calculation)
6/14/18	Quality Verification Assessment #181570002	System Engineering Assessment
6/14/18	Quality Verification Assessment #181570003	Preventive Maintenance Optimization Project
6/19/18	Quality Verification Assessment #181510009	Chemistry STP C-1 Spray Additive System Chemical Inventory
6/5/18		Quality Digest; Information You Can Use

G. Nuclear Safety Culture Monitoring Panel Reports

Date	Doc. No.	Title
6/20/18	NSOC Only	2017 December – 2018 April Nuclear Safety Culture Review Report

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

Date	Doc. No.	Title
5/31/18	SAPN 50930525	PI&R Self-Assessment

June
List of Documents Transmitted Electronically

5/31/18	SAPN 50982926	Sec: Informal Trip Report (Braidwood)
6/5/18	SAPN 50949811	HMD Site Visit Trip Report
6/5/18	SAPN 50956858	Perform QHSA of RP Instrumentation Prog
6/5/18	SAPN 50956871	Perform QHSA of Radwaste and RAM
6/7/18	SAPN 50927227	QHSA for NRC RP Inspection 71124.04
6/14/18	SAPN 50931893	2016 Planning Department QHSA
6/14/18	SAPN 50956859	Perform QHSA of Rad Effluents
6/14/18	SAPN 50956870	Perform QHSA of REMP
6/14/18	SAPN 50973007	QHSA Readiness U2 Self-Approval
6/25/18	SAPN 50985239	NRC Inspection 2018 QHSA

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		
6/14/18		Diablo Canyon Power Plant; Plant Performance Improvement Report Achieving Results; Data: May 2018; Report Date: June 14, 2018
Station Initiative		
7/2/18		Learning Services Excellence Plan 2018 – Generating Excellence
7/3/18		Our Path Forward 2017-2018; Organizational Effectiveness Excellence Plan
IPM		

J. INPO

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

June
List of Documents Transmitted Electronically

K. Operational Documents (ODM Minutes, POAs)

Date	Doc. No.	Title
ODMs		There are no ODMs for this month.
POA	SAPN 50985639	DA-2018 DBA EQ: IH-06 Conduit Configurat

L. Safety Limit Violation Report

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

M. Significance Determination Process Calculations

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

N. Miscellaneous

Date	Title
7/2/18	Jim Welsch's Weekly Alignment Update

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 201822	T+1 Performance Critique
	Week 201823	T+1 Performance Critique
	Week 201824	T+1 Performance Critique
	Week 201825	T+1 Performance Critique

P. Documents Previously Transmitted during the Month

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

July
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

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

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

Date	Letter No.	Title
7/25/18	DCL-18-056, DIL-18-009	Emergency Plan Implementing Procedure Update

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
7/20/18	Town Hall Meeting and Public Outreach
7/24/18	Diablo Canyon Power Plant – NRC Inspection Report 05000275/2018002 and 05000323/2018002

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		
3/27/18	2018-008	FPEE 029, Fire Traps for Diesel Generator Rooms
6/19/18	2018-011	M-1177, Nuclear Safety Capability Assessment M-1179, Recovery Action Feasibility Assessment
7/17/18	2018-013	E-Plan Changes

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.
7/6/18		Condition Report Backlog Curves
7/13/18		Condition Report Backlog Curves
7/20/18		Condition Report Backlog Curves
7/27/18		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.

July
List of Documents Transmitted Electronically

		There is no new Schedule for this month.
7/10/18	Assessment # 181790022	Main Feedwater Pump 1-2 Oil Level Alarm Power Reduction

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
		There is no updated Quick Hit Self-Assessment (QHSA) Schedule this month.
		There is no Formal Benchmarking and Self-Assessments Schedule this month.
7/2/18	SAPN 50956997	Perform formal benchmark EB 17-01 & NISP
7/12/18	SAPN 50958547	Adherence to Standards BM – Callaway
8/1/18	SAPN 50986737	Station Rework – Informal Benchmarking
7/2/18	SAPN 50948142	EQ: Program: STARS Formal SA Pre Inspect
7/12/18	SAPN 50956872	Perform SA of Rad Effluent Monitors
7/19/18	SAPN 50944099	Weld Process Self Assessment
8/1/18	SAPN 50882687	2017 M&T Comprehensive Self-Assessment
7/2/18	SAPN 50955339	QHSA – Training Committees
7/12/18	SAPN 50958040	QHSA RP Insp Proc 71124 Attachment 01
7/19/18	SAPN 50901263	Biennial Target Set SA 2018
8/1/18	SAPN 5098529	Sec Trng Procedures Self-Assessment
8/2/18	SAPN 50967230	Corporate QHSA for Diving Programs

July
List of Documents Transmitted Electronically

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		
7/18/18		Diablo Canyon Power Plant; Plant Performance Improvement Report Achieving Results; Data: June 2018; Report Date: July 18, 2018
Station Initiative		
8/6/18		Organizational Effectiveness Excellence Plan
8/6/18		Leadership Engagement in PI Processes
8/9/18		Learning Services 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.

L. Safety Limit Violation Report

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

M. Significance Determination Process Calculations

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

N. Miscellaneous

Date	Title
7/9/18	Jim Welsch's Weekly Alignment Update
7/16/18	Jim Welsch's Weekly Alignment Update
7/23/18	Jim Welsch's Weekly Alignment Update
7/30/18	Jim Welsch's Weekly Alignment Update

July
List of Documents Transmitted Electronically

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 201826	T+1 Performance Critique
	Week 201827	T+1 Performance Critique
	Week 201828	T+1 Performance Critique
	Week 201829	T+1 Performance Critique
	Week 201830	T+1 Performance Critique
	Week 201831	T+1 Performance Critique

P. Documents Previously Transmitted during the Month

Date	Doc. No.	Title
		No documents previously transmitted during the month.

August
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

Date	LBIE No.	Title
		There are no licensing basis impact evaluations.

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

Date	Letter No.	Title
8/1/18	DCL-18-057	Request for Alternative from Volumetric/Surface Examination Frequency Requirements of ASME Code Case N-729-4
8/8/18	DCL-18-058	Flaw Evaluation of Unit 2, ASME Code Class 2 Charging Pump Discharge Lines: Welds WIC-45A and RB-46-7
8/23/18	DCL-18-063 DIL-18-010	Emergency Plan Implementing Procedure Update

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
8/8/18	Diablo Canyon Power Plant, Unit Nos. 1 and 2 – Staff Review of Spent Fuel Pool Evaluation Associated with Reevaluated Seismic Hazard Implementing Near-Term Task Force Recommendation 2.1: Seismic (EPID L-2017-JLD-0058)
8/10/18	Summary of July 20, 2018, Pre-Submittal Meeting with Pacific Gas and Electric Company to Discuss the Proposed License Amendment Request to Implement WCAP-16996-A, Revision 1, "Realistic LOCA Evaluation Methodology Applied to the Full Spectrum of Break Sizes (Full Spectrum LOCA Methodology)," (EPID L-2018-LRM-0041)
8/10/18	Notice of Pre-submittal Meeting with Pacific Gas and Electric Company Regarding a License Amendment Request for Diablo Canyon Nuclear Power Plant, Units 1 and 2 (EPID L-2018-LRM-004)
8/22/18	Diablo Canyon Power Plant -NRC Component Design Bases Inspection Report 05000275/2018010 and 05000323/2018010
8/23/18	Acceptance Review – Request for Alternative from Volumetric/Surface Examination Frequency Requirements of ASME Code, Code Case N-729-4 for Diablo Canyon Nuclear Power Plant, Units 1 and 2 (EPID L-2018-LLR-0107)
8/31/18	Updated Inspection Plan for Diablo Canyon Power Plant, Units 1 and 2 (Report 05000275/2018005 and 05000323/2018005)

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

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

August
List of Documents Transmitted Electronically

PSRC Minutes		
8/14/18	2018-014	E-Plan Updates
8/20/18	2018-015	E-Plan Updates

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	50915783	Effectiveness Evaluation – 50886801
	50941440	Effectiveness – 50907301 Mn. Bk C Fuse
8/3/18		Condition Report Backlog Curves
8/10/18		Condition Report Backlog Curves
8/17/18		Condition Report Backlog Curves
8/24/18		Condition Report Backlog Curves
8/31/18		Condition Report Backlog Curves

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

Date	Doc. No.	Title
8/13/18	# 182060008	Quality Performance Assessment Report (QPAR); Second Period 2018; March 22, 2018 through July 1, 2018
8/14/18	FileNet #173460008	2018 Security Audit
		There is no new Schedule for this month.
8/9/18		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 is no updated Quick Hit Self-Assessment (QHSA) Schedule for this month.

August
List of Documents Transmitted Electronically

		There are no Formal Benchmarking and Self-Assessments Schedule for this month.
9/6/18	SAPN 50981988	2018 Reactivity Management QHSA
9/10/18	SAPN 50830963	Perform QHSA on Operator Fundamentals
9/6/18	SAPN 50870565	2017 System Engineering Program SA
9/6/18	SAPN 50960152	Formal Self-Assessment FME Program
8/16/18	SAPN 50990866	Informal Benchmark - Records
9/6/18	SAPN 50875465	Protected Equip Benchmarking
9/6/18	SAPN 50949499	2017 NRC Reg Con Trip Report
9/6/18	SAPN 50973269	STARS Objective Summit – Benchmark
9/6/18	SAPN 50987143	IT Workshop 2018 Trip Report

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	8/16/18	Diablo Canyon Power Plant; Plant Performance Improvement Report; Achieving Results; Data: July 2018
Station Initiative	SAPN 50980924	Record and Document Handling Action Plan
9/12/18		Learning Services Excellence Plan 2018
IPM		There are no IPMs for this month.

J. INPO

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

August
List of Documents Transmitted Electronically

K. Operational Documents (ODM Minutes, POAs)

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

L. Safety Limit Violation Report

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

M. Significance Determination Process Calculations

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

N. Miscellaneous

Date	Title
8/6/18	Jim Welsch's Weekly Alignment Update
8/13/18	Jim Welsch's Weekly Alignment Update
8/20/18	Jim Welsch's Weekly Alignment Update
8/27/18	Jim Welsch's Weekly Alignment Update
	Records Management System Internal Best Practices Planning

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 201832	T+1 Performance Critique
	Week 201833	T+1 Performance Critique
	Week 201834	T+1 Performance Critique
	Week 201835	T+1 Performance Critique
	Week 201836	T+1 Performance Critique

P. Documents Previously Transmitted during the Month

Date	Doc. No.	Title
		There are no documents previously transmitted.

September
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

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

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

Date	Letter No.	Title
9/11/18	DCL-18-050	Evaluation Documents in Support of Structural Weld Overlay, REP-RHR-SWOL, Unit 2
9/11/18	DCL18-070	Technical Specifications Bases, Revision 11
9/12/18	DCL-18-064	License Amendment Request 18-01 Request to Revise Emergency Plan Response Organization Staffing and Augmentation
9/25/18	DCL-18-071	10 CFR 50.46 Annual Report of Emergency Core Cooling System Evaluation Model Changes for Peak Cladding Temperature for 2017
9/26/18	DCL-18-074 DIL-18-012	Emergency Plan and Implementing Procedures Update

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
9/11/18	Summary of August 23, 2018, Pre-Submittal Meeting with Pacific Gas and Electric Company to Discuss an Upcoming License Amendment Request for Changing the Emergency Response Organization Augmentation Time at the Diablo Canyon Nuclear Power Plant, Units 1 and 2 (EPID L-2018-LRM-0042)
9/11/18	Annual Assessment Meeting Summary

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		There are no ACEs for this month.
Eff. Eval	SAPN 50945227	Effectiveness Eval for CE 50935071
9/7/18		Condition Report Backlog Curves
9/14/18		Condition Report Backlog Curves

September
List of Documents Transmitted Electronically

9/21/18		Condition Report Backlog Curves
9/28/18		Condition Report Backlog Curves

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

Date	Doc. No.	Title
		There is no QPAR for this month.
4/23/18	FileNet #173460007	2018 Emergency Preparedness Audit
9/10/18	FileNet #181620025	2018 Geosciences Quality Assurance Program Audit
9/17/18	FileNet #181550006	2018 Training and Qualifications Audit
		There is no new Schedule for this month.
4/4/18	Quality Verification Assessment #180780013	U2 Stator Coil Cooling Water Pipe Leak Repair
6/13/18	Quality Verification Assessment #181280004	Humboldt Bay Power Plant Decommissioning Radiological Protection Activities
7/30/18	Quality Verification Assessment #172190021	Assessment of Design Change Package #1000025198 (Alternative Source Term Implementation)
9/11/18	Quality Verification Assessment #182540002	Review of Preventive Maintenance Change Requests
9/25/18	Quality Verification Assessment #182550011	Operator Aids
0/27/18	Quality Verification Assessment #182680010	Unit 2 Curtailment, September 2018
3/20/18	Quality Verification Technical Assessment #180790021	Technical Assessment of Calculation M-1129 (Clean Strainer Head Loss Calculation)

September
List of Documents Transmitted Electronically

3/20/18	Quality Verification Technical Assessment #180790020	Technical Assessment of Calculation PGE-027-CALC-002 (Diablo Canyon In-Vessel Fiber Calculation)
3/20/18	Quality Verification Technical Assessment #180790022	Technical Assessment of Calculation PGE-027-CALC-003 (Diablo Canyon Evaluation of Recirculation Sump In-Vessel Debris Deposition)
6/7/18	Quality Verification Technical Assessment #181570004	Technical Assessment of Calculation PGE-027-CALC-001 (Diablo Canyon Debris Laden Strainer Head Loss Calculation)
7/10/18		Quality Digest; Information You Can Use
9/6/18		Quality Digest; Information You Can Use
10/1/18	SAPN 50988087	3Q2018 QV Observation Tracking

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

Date	Doc. No.	Title
6/20/18		2017 December – 2018 April Nuclear Safety Culture Review Report
8/4/18	50997344	Nuclear Safety Culture Review Report 2 nd Period 2018; NSCMP Meeting: August 4, 2018
		Nuclear Safety Culture Monitoring Panel and Line Orgs
10/2/18	OM6.ID1	Nuclear Safety Culture and Safety Conscious Work Environment (SCWE)
10/2/18	OM6.ID2	Nuclear Safety Culture Health Monitoring

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.
9/17/18	SAPN 50959627	Informal Benchmark – WCNOG T-2 Assessment
9/17/18	SAPN 50985451	Informal Benchmark-INPO/NEI Trip Report
10/1/18	SAPN 50930183	RW Benchmarking ASME/EPRI

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10/1/18	SAPN 50978875	SNPM Operations Benchmark
10/1/18	SAPN 50985600	Rigging Benchmark EPRI Conf.
10/1/18	SAPN 50989760	Informal Benchmark: Operations INPO Visit
10/1/18	SAPN 50836966	Perform FLEX Self Assessment
10/1/18	SAPN 50948216	2017 INPO NP.1 AFI
10/1/18	SAPN 50970787	2018 AD3.ID5 Pri-1 Compliance Eval
10/10/18	SAPN 50960312	Operations Training Programs Comprehensive Self-Assessment Report

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		Diablo Canyon Power Plant; Plant Performance Improvement Report Achieving Results; Data: August 2018; Report Data: September 18, 2018
Station Initiative		There are no new station initiatives this month.
IPM		
7/18/18		Nuclear Work Management Integrated Performance Monitoring (IPM) Meeting Agenda
7/23/18		Maintenance Integrated Performance Monitoring (IPM) Meeting Agenda
7/23/18		Operations Integrated Performance Monitoring Meeting Agenda
7/26/18		Risk & Compliance Integrated Performance Monitoring Meeting Agenda
7/26/18		Security, Access, PI & Support Integrated Performance Monitoring Meeting Agenda
7/30/18		Radiation Protection Integrated Performance Monitoring (IPM) Meeting Agenda
7/31/18		Chemistry Integrated Performance Monitoring (IPM) Meeting Agenda
8/2/18		Engineering Integrated Performance Monitoring (IPM) Meeting Agenda

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	50988942	2Q2018 Maintenance IPM Report
	50990140	2Q2018 NWM IPM Report
	50990747	2Q2018 Station IPM Package
	50990747	2Q2018 Station IPM Report
	50991877	2Q2018 RP IPM Report
	50991938	2Q2018 Security IPM Report
	50991951	2Q2018 Risk & Compliance IPM Report
	50992004	2Q2018 Operations IPM Report
	50993142	2Q2018 Chemistry IPM Report
	50993143	2Q2018 Engineering IPM Report
ORM		Observation Review Meeting; Electrical Maintenance; Observation Date Range: 3Q2018
		Observation Review Meeting; Mechanical Maintenance; Observation Date Range: 3Q2018
		Observation Review Meeting; I&C Maintenance; Observation Date Range: 3Q2018
		Observation Review Meeting; Maintenance Support
6/1/18 - 6/27/18		2018 Observation Review Meeting; Radiation Protection
6/28/18– 7/11/18		2018 Observation Review Meeting; Radiation Protection
7/12/18– 7/23/18		2018 Observation Review Meeting; Radiation Protection
7/26/18 - 8/7/18		2018 Observation Review Meeting; Radiation Protection
8/7/18 – 8/21/18		2018 Observation Review Meeting; Radiation Protection
8/22/18– 9/12/18		2018 Observation Review Meeting; Radiation Protection
7/1/18 – 10/3/18		Trend Notifications

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	SAPN 50656953	LTCA: DA-Vital 480V SGR Tornado Impacts

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L. Safety Limit Violation Report

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

M. Significance Determination Process Calculations

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

N. Miscellaneous

Date	Title
9/4/18	Jim Welsch's Weekly Alignment Update
9/10/18	Jim Welsch's Weekly Alignment Update
9/17/18	Jim Welsch's Weekly Alignment Update
9/24/18	Jim Welsch's Weekly Alignment Update

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 201837	T+1 Performance Critique
	Week 201838	T+1 Performance Critique

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

MEETING DATE:	October 25, 2018
AGENDA ITEM:	XIII-B
AGENDA TITLE:	San Onofre Nuclear Generating Station (SONGS) Decommissioning Experience

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

Staff Summary: Remarks will be offered by Dr. David Victor, the Chair of the San Onofre Community Engagement Panel regarding the experience and lessons learned by the Panel to date concerning the decommissioning of SONGS, including any insights he may offer concerning the merits and utility of the DCISC having a continuing role to review decommissioning-related issues during the decommissioning of DCP.

RECOMMENDED COMMITTEE ACTION: As appropriate



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David Victor

Professor; Co-director, Laboratory on International Law and Regulation

Profile

Books

David Victor is a professor of international relations and co-director of the Laboratory on International Law and Regulation (<http://ilar.ucsd.edu/>) at the School. His research focuses on highly regulated industries and how regulation affects the operation of major energy markets.

Victor is author of "Global Warming Gridlock," (<http://www.cambridge.org/us/academic/subjects/politics-international-relations/international-relations-and-international-organisations/global-warming-gridlock-creating-more-effective-strategies-protecting-planet>) which explains why the world has not made much diplomatic progress on the problem of climate change while also exploring new strategies that would be more effective.

Prior to joining UC San Diego, Victor served as director of the Program on Energy and Sustainable Development at Stanford University, where he was a professor at Stanford Law School and taught energy and environmental law. Earlier in his career he also directed the science and technology program at the Council on Foreign Relations and led the International Institute for Applied Systems Analysis.

Victor's research interests surround energy policy—the future role of natural gas, electric power market reform and rural energy development—genetically modified plants and the related trade policy, climate-change policy, and the role of technology, innovation and competition in development.



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Education

Ph.D., Political Science, Massachusetts Institute of Technology, 1997

A.B., History and Science, Harvard University, 1987

GPS Spotlight

Battery storage at the center of energy policy ([../news-events/news/battery-storage-at-the-center-of-energy-policy.html](http://pages.ucsd.edu/~dgvictor/news-events/news/battery-storage-at-the-center-of-energy-policy.html))

Voicing an environmental policy outlook under Trump ([../news-events/news/voicing-an-environmental-policy-outlook-under-trump.html](http://pages.ucsd.edu/~dgvictor/news-events/news/voicing-an-environmental-policy-outlook-under-trump.html))

Correcting the Course on Climate Change Negotiations: The Road from Paris COP 21 with David Victor (<http://www.ucsd.tv/search-details.aspx?showID=30487>)

Professor David Victor on climate change ([../news-events/news/professor-david-victor-on-climate-change.html](http://pages.ucsd.edu/~dgvictor/news-events/news/professor-david-victor-on-climate-change.html))

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

MEETING DATE:	October 25, 2018
AGENDA ITEM:	XX-B
AGENDA TITLE:	Committee Discussion of a Post-Shutdown Role and Possible Engagement of a Consultant, on an ad hoc basis, to Assist in the Identification of Decommissioning-related Issues.

CONSENT []**ACTION [X]****INFORMATION [X]**

Staff Summary: The Committee Members, Technical Consultants and Legal Counsel are expected to discuss defining and assessing the utility of a possible 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 ad hoc basis, to assist it in the identification of decommissioning-related issues.

RECOMMENDED COMMITTEE ACTION: As appropriate