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

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

* *

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AGENDA
Thursday & Friday, October 22-23, 2020

In response to Governor Newsom's Executive Order N.29-20 related to the COVID-19 (coronavirus) pandemic, public participation in the DCISC public meetings shall be electronic only and without a physical location for public participation in compliance with California state guidelines on social distancing. This meeting is being produced by AGP Video Inc. and webcast "live" on SLO-SPAN at http://www.slo-span.org and through http://www.dcisc.org and will be broadcast subsequently on San Luis Obispo local government access television, Channel 21.

PARTICIPATION
You may participate in the DCISC's public meeting in real-time by accessing the Zoom webinar meeting via the weblink or meeting ID and Passcode given above or by calling any of the phone number provided at the top of this agenda. Instructions on how to access, view and participate in remote meetings are also provided by visiting the DCISC's home page at http://www.dcisc.org. Attendees can make oral comments or ask questions of the Committee Members during the webinar meeting by using the "Raise Your Hand" feature or by pressing *9 on your telephone keypad if joining by telephone only. If you are unable to participate in real-time, you may email to dcsafety@dcisc.org with the subject line "Public Comment Item#___" (insert the item number relevant to your comment) or "Public Comment – Non Agenda Item." Comments will be reviewed and distributed before the meeting if received by 5:00 p.m. on Wednesday, October 21, 2020. Comments received after that will be addressed during the item and/or at the end of the meeting. All comments received will be read into and become part of the record, subject to a time limit determined by the presiding officer. The Committee will have the option to modify its actions on items based on comments received.

AGENDA MATERIALS
The agenda, staff reports and background information distributed to the Committee are public records and will be available for public review on the DCISC's website (www.dcisc.org) on or before Monday, October 19, 2020, Supplemental materials received after the close of the final agenda and through noon on the days of the scheduled meeting will be available for public review at the meeting. Materials related to an item on this agenda submitted to the Committee after distribution of the agenda packet will be made available on the DCISC website subject to the ability of the Committee staff to post the documents before the meeting.

Morning Session - 10/22/2020 – 9:00 A.M.

I CALL TO ORDER - ROLL CALL

II INTRODUCTIONS

ADVISEMENT

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

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 may 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.*

IV INFORMATION ITEMS BEFORE THE COMMITTEE

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

1) State of the Plant Update including Key Events, Highlights, Organizational Changes, Retention Tier 2 Update, COVID-19 Pandemic, Unit 1 Outage Activities, Recent Wildfires, Recent Human Performance in Operations and other Station Activities Since the DCISC July 2020 Public Meeting.

2) Update on the Status of NRC Performance Indicators, Licensee Event Reports, NRC Inspection Reports and Notices of Violation, Issues Raised by NRC Resident Inspectors, Open Compliance Issues, and License Amendment Requests. And Other Significant Regulatory Issues/Requests.

3) Cause and Corrective Action for the February 2020 Unit 2 Forced Outage to Repair the Rod Control System.

V ADJOURN MORNING MEETING

Afternoon Session – 10/22/2020 - 1:30 P.M.

VI RECONVENE FOR AFTERNOON MEETING

VII COMMITTEE MEMBER COMMENTS

VIII PUBLIC COMMENTS AND COMMUNICATIONS

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

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

4) Decommissioning Planning Update, Including Status of Spent Fuel Cask Request for Proposals.

X INFORMATIONAL DISCUSSION BY DCISC MEMBERS & TECHNICAL CONSULTANTS

A. Committee Discussion on Spent Fuel Pool Risk Evaluation And Possible Recommendation.

X1 INFORMATION ITEMS BEFORE THE COMMITTEE (Cont'd.)

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

5) Update on Emergency Preparedness Programs Including Changes Made in Response to the COVID-19 Pandemic.

XII ADJOURN AFTERNOON MEETING

Morning Session - 10/23/2020 - 8:30 A.M.

XIII RECONVENE FOR MORNING MEETING

XIV COMMITTEE MEMBER COMMENTS

XV PUBLIC COMMENTS AND COMMUNICATIONS

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XVI ACTION ITEMS

A.	DCISC 30th Annual Report on Safety of Diablo Canyon Operations; July 1, 2019 – June 30, 2020.	Discussion/Approval
B.	Update on Financial Matters and Committee Activities during 2020-2021.	Discussion/Action
C.	Discussion of Open Items List.	Discussion/Action

XVII COMMITTEE MEMBER REPORTS AND DISCUSSION

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

B. Documents Provided to the Committee.

XVIII INFORMATIONAL DISCUSSION BY REPRESENTATIVE OF THE DIABLO CANYON DECOMMISSIONING ENGAGEMENT PANEL

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

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

A. Consultant R. Ferman Wardell.
Fact-finding Topics; Report on and Approval of
July 21-22, 2020 Fact Finding Report.

B. Robert Rathie:
Administrative, Regulatory, including CPUC Interactions,
and Legal Matters.

XX ADJOURN MORNING MEETING

Afternoon Session – 10/23/2020 – 1:15 P.M.

XXI RECONVENE FOR AFTERNOON MEETING

XXII COMMITTEE MEMBER COMMENTS

XXIII PUBLIC COMMENTS AND COMMUNICATIONS

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

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

C. Consultant Richard D. McWhorter Jr:
Fact-finding Topics; Report on and Approval of the
August 19-20. 2020 Fact Finding Report.

D. Consultant R. Ferman Wardell.
Fact-finding Topics; Report on and Approval of
September 9-10, 2020 Fact Finding Report.

XXV APPROVAL OF MINUTES

A. Minutes of July 1-2, 2020, Meeting. Accept

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

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

XXVII ADJOURNMENT OF NINETY-SEVENTH PUBLIC MEETING

A person who needs a disability-related accommodation or modification in order to participate in the meeting may make a request by contacting the DCISC office at (800) 439-4688 or by sending a written request to the DCISC office at 857 Cass Street, Ste. D., Monterey, CA 93940. Providing your request at least five business days before the meeting will help ensure availability of the requested accommodation

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE	
AGENDA TRANSMITTAL FORM	
MEETING DATE:	October 23, 2020
AGENDA ITEM:	X
AGENDA TITLE:	Committee Discussion and Receive Comments Concerning a Possible Recommendation by the DCISC Concerning a Relative Risk Evaluation of the Approaches Associated with Spent Fuel Pool Storage and the Off-Loading to Dry Storage of Spent Nuclear Fuel at Diablo Canyon Power Plant.
CONSENT [ ] ACTION [X] INFORMATION [X]	

Staff Summary: The Committee Members and Technical Consultants are expected to discuss and to receive comments from members of the public concerning a recommendation by the Committee concerning a relative risk evaluation of the approaches associated with spent fuel pool storage and off-loading to dry storage of spent nuclear fuel at DCPP.

At the DCISC's public meeting on July 1, 2020, the Committee received a presentation on report by the B. John Garrick Institute for Risk Sciences entitled "Probabilistic Risk Assessment of Nuclear Power Plant Spent Fuel Handling and Storage Programs: Methodology and Application to the Diablo Canyon Power Plant." This report together with reports from Committee fact-finding, information received from PG&E, and the discussion during the July 1, 2020, public meeting are expected to inform this discussion. A copy of the highlights of the probabilistic risk assessment report from the July 1, 2020, public meeting is provided with this transmittal memo.

RECOMMENDED COMMITTEE ACTION: discussion and action as appropriate.

UCLA

Highlights of Report "Probabilistic Risk Assessment of Nuclear Power Plant Spent Fuel Handling and Storage Programs: Methodology and Application to the Diablo Canyon Power Plant"

Presented by
B. John Garrick
Donald J. Wakefield

Pacific Gas & Electric Company
Public Meeting
July 1, 2020

The B. John Garrick Institute for the Risk Sciences
UCLA ENGINEERING

Statement of Task

- Develop a probabilistic risk assessment methodology for nuclear power plant onsite spent fuel handling and storage activities
- Demonstrate the methodology by assessing the risks to public health while comparing the results to the USNRC's safety goals and quantitative health objectives (QHO)
- Compare the risks of four proposed offload scenarios using a surrogate risk metric

Diablo Canyon Power Plant

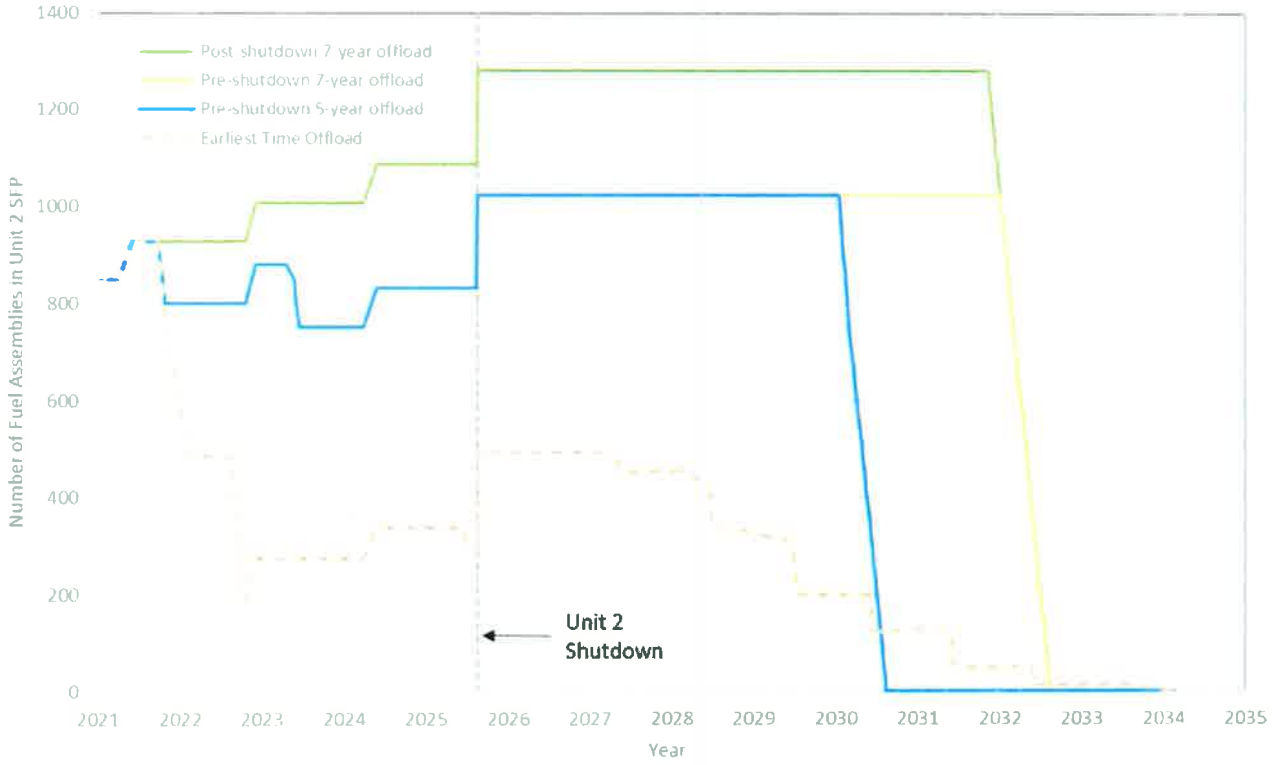
Four Offload Scenarios Considered (1/2)

1. Transfer all spent nuclear fuel (SNF) after reactor shutdown and complete in 7 years
   - Spent fuel pool (SFP) emptied August 2032
   - Transfer to dry storage completed with one campaign
   - Reduced occupational exposures
2. Transfer some SNF before and remainder after reactor shutdown and complete 7 years after reactor shutdown
   - SFP emptied August 2032
   - Reduced fuel assembly inventory prior to permanent reactor shutdown
   - Retain enough cold spent fuel assemblies (SFAs) to complete final campaign as quickly as possible

Four Offload Scenarios Considered (2/2)

3. Transfer some SNF before and remainder after reactor shutdown and complete 5 years after reactor shutdown.
   - SFP emptied August 2030
   - Reduced fuel assembly inventory prior to reactor shutdown
   - Earliest date to fully empty SFP
   - Retain enough cold SFAs to facilitate transfer campaign for last fuel cycle
4. Transfer some SNF before and remainder after reactor shutdown at the earliest times considering MPC heat generation limits and Unit 1 outages
   - SFP emptied January 2034
   - Delays time to empty due to heat load management strategy
   - Largest reduction in SFP inventory prior to permanent reactor shutdown

Figure 1. Time Dependent Number of Fuel Assemblies in the Unit 2 SFP vs Calendar Year for Four Offload Scenarios



Goal/Risk Framework/Risk Metric

Goal: Quantification of the comparative risks to public health of four offload scenarios for transferring the SNF from the SFPs to the DCPP ISFSI for dry storage

Risk Assessment Framework: What can go wrong? (accident sequences); How likely is it? (probability of frequency); What are the consequences? (accident sequence end states)

Intermediate Metric: The frequency of fuel damage at each location. This metric is used to screen out risk insignificant accident sequences.

Specialized Risk Metric: Probability of an SFP severe accident weighted by the amount of cesium that may be released due to fuel overheating and summed over all times that SNF is in the SFP. This metric accounts for the consequences based on the time-dependent amount of fuel in the SFP.

Approach/Areas of Emphasis

Approach

- Extensive reliance on typical PWR studies of spent fuel risks, especially those prepared by USNRC and EPRI (64 references)
- Use of DCPP specific procedures, design, and safety analysis information where applicable

Areas of Emphasis

- Accountability of time dependent SNF amounts stored and the effects on amount of radionuclides released in a severe accident
- Screening of low risk accidents, and quantify the risk significant sequences associated with the SFP
- Comparison of severe accident risks with USNRC's quantitative health objectives
- Assessment of comparative risks between offload scenarios, neglecting risks which are the same in each offload scenario
- Consideration of "beyond design basis" events, especially seismic events that may lead to large offsite releases capable of impacting public health
- Actual public health dose calculations were not computed; the amount of cesium released is used as a surrogate for consequence

Severe Accidents Involving the SFP

- The uncovering of water over the spent fuel stored in the pool can result in fuel overheating and the release of their radioactive fission products.
- Two general categories of fuel uncovery are 1) accidents resulting in a loss of active spent fuel pool cooling, or 2) a loss of coolant. The former would also result in a loss of coolant due to boiling.
- It was necessary to hypothesize threats beyond those considered in the design basis for licensing the spent fuel pool for there to be noticeable differences in risks between the different offload scenarios.

Risk Acceptance Guidelines

- Public health risk acceptance is based on the quantitative health objectives of the USNRC safety goals
- The DCPP spent fuel intermediate risk results are consistent with USNRC spent fuel risk studies
- A beyond design basis seismic event having the potential to uncover fuel in the spent fuel pool and enable a large cesium release was assessed to have a recurrence interval of about once every 57,000 years
- The public health risks each year of DCPP SFP operation were found to be well below the safety goal's QHOs

The Risk Ranking of the Four Offload Scenarios

- Pre-Shutdown Earliest Offload (.036)
- Pre-Shutdown 5-Year Offload (.056)
- Pre-Shutdown 7-Year Offload (.065)
- Post Shutdown 7-Year Offload (.067)

Key Takeaways (1/2)

- The public health risk of each of the offload scenarios is small and well within the quantitative health objectives of the USNRC's safety goals
- There is limited variation in the risk metrics comparing the four offload scenarios. The lowest offload scenario risk is just 46% lower than the highest
- The earliest offload scenario (#4, beige line) provides the largest reduction in risk but not substantially lower than the others
- Risk contribution from dry storage (which contains many more fuel assemblies than the SFP) is a fraction of that from the SFP, though risks at both locations are small
- Seismic capacity of the SFP is robust, even for large seismic events

Key Takeaways (2/2)

- Accident sequences initiated by seismic events much larger than the design basis represent 95% of the SFP risk
- It is unlikely that more than two reactor core equivalents of fuel assemblies (i.e., ~400 fuel assemblies) would overheat following fuel uncovery for any of the four offload scenarios
- Primary uncertainties are human performance, extent of cesium release given fuel uncovery, and the seismic capacities of the fuel handling and auxiliary buildings which enclose the SFP

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE	
AGENDA TRANSMITTAL FORM	
MEETING DATE:	October 23, 2020
AGENDA ITEM:	XVI-A
AGENDA TITLE:	DCISC 30th Annual Report on Safety of Diablo Canyon Operations; July 1, 2019 - June 30, 2020
CONSENT [ ] ACTION [XX] INFORMATION [ ]	

The Settlement Agreement creating the DCISC provided that "The Committee shall prepare an annual report and such interim reports as it deems appropriate, which reports shall include any recommendations of the Committee." A draft report covering Fiscal Year 2019-2020 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 thirtieth 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 2019-2020 Thirtieth 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.

AGENDA PACKET

Diablo Canyon Independent Safety Committee

THIRTIETH ANNUAL REPORT ON THE SAFETY OF DIABLO CANYON NUCLEAR POWER PLANT OPERATIONS

July 1, 2019 - June 30, 2020

Section

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Exhibits

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B.2 Agenda for October 23-24, 2019 Public Meeting

B.3 Minutes of October 23-24, 2019 Public Meeting

B.4 Notice of February 12-13, 2020 Public Meetings

B.5 Agenda for February 12-13, 2020 Public Meetings

B.6 Minutes of February 12-13, 2020 Public Meetings

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  - 3.5. Meet with DCPP Officer
  - 3.6. Recent Modifications to Reactor Coolant Pump Vibration Monitoring Systems
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- 3.5. Plant Health Committee meeting
- 3.6. Engineering Excellence Plan (last reviewed December 2018)
- 3.7. August 2019 WANO evaluation report
- 3.8. Plant Tour: 2R21 outage activities and observe work in progress
- 3.9. View Recorded September 3, 2019 Listening and Learning with Jim Welsch, Paula Gerfen, and CEO Andy Vesey - perhaps during lunch.
- 3.10. Discuss the following for appropriateness:
- 3.11. DCPP experienced two significant avoidable issues during Refueling Outage 1R21 which were caused or exacerbated due to ineffective implementation of its Corrective Action Program. These issues were Reactor Coolant Pump seal leakage and Polar Crane Trip Reset. Although neither issue was a major safety concern, each increased the risk of an accident. The DCISC believes it prudent for DCPP to examine its Corrective Action Program, including corrective action effectiveness reviews, for ineffective implementation extent of condition.
- 3.12. Update on the results of the following:

3.13. QV Assessment 191420002, OP AP-34 Series Fire Protection Abnormal Operating Procedures - results of Operations Procedure Group review of the 91 P-34 Series fire protection procedures.
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3.3. Intake Structure General Condition and Walkdown
3.4. Meet with DCPP Officer
3.5. Future Spent Fuel Management
3.6. Residual Heat Removal Systems
3.7. Transmission System and Unit 2 Reactor Trip Corrective Actions
3.8. Control Room Observation During Startup
3.9. 'T+1' Critique Meetings
3.10. Refueling Outage 2R21 Performance
4.0 Conclusions
5.0 Recommendations
6.0 References

D.6 Report on Fact Finding Meeting at DCPP on January 29-30, 2020
1.0 Summary
2.0 Introduction
3.0 Discussion
3.1. Attend Plant Health Committee Meeting
3.2. Maintenance Department Update and PIs
3.3. Troubleshooting
3.4. Maintenance Work Package
3.5. Generator Stator Refurbishment Video
3.6. Observe Training Session
3.7. Meet with NRC Senior Resident Inspector
3.8. Unexpected Energy Release
3.9. 4kV Relay Replacements
3.10. Meet with DCPP Officer
3.11. PRA Calculation: "Transition from Mode 5 to Mode 4 with Main Bank 500kV Unavailable."
4.0 Conclusions
5.0 Recommendations
6.0 References

D.7 Report on Fact Finding Meeting at DCPP on March 17-18, 2020
- 1.0 Summary
- 2.0 Introduction
- 3.0 Discussion
  - 3.1. Meet with Nuclear Regulatory Commission (NRC) Senior Resident Inspector
  - 3.2. Human Performance
  - 3.3. Attend Notification Review Team Meeting
  - 3.4. Auxiliary Saltwater System
  - 3.5. Environmental Qualification Program
  - 3.6. Auxiliary Feedwater System
  - 3.7. Unit 2 Forced Outage
  - 3.8. Special Protection System
  - 3.9. Steam Generator System
  - 3.10. Pandemic Response Planning for the COVID-19 Coronavirus Threat
  - 3.11. Future Spent Fuel Management
  - 3.12. Mode Change Sequence Following Refueling Outage 2R21
  - 3.13. Meet with DCPP Officer
- 4.0 Conclusions
- 5.0 Recommendations
- 6.0 References

D.8 Report on Fact Finding Meeting at DCPP on April 15-16, 2020
- 1.0 Summary
- 2.0 Introduction
- 3.0 Discussion
  - 3.1. Meet with NRC Senior Resident Inspector
  - 3.2. Unit 2 Forced Outage
  - 3.3. Quality Performance Assessment Report
  - 3.4. Quality Verification Audits and Nuclear Industry Evaluation Program
  - 3.5. Final Spent Fuel Risk Analysis
  - 3.6. Component Cooling Water System
  - 3.7. DCISC Member meet with DCPP Chief Nuclear Officer Jim Welsch
  - 3.8. Online Maintenance Update
  - 3.9. Integrated Risk Assessment Update
  - 3.10. Operations Department Update
  - 3.11. Observe Licensed Operator Training
  - 3.12. DCPP Coronavirus Update
- 4.0 Conclusions
- 5.0 Recommendations
- 6.0 References

D.9 Report on Fact Finding Meeting at DCPP on May 12-13, 2020
- 1.0 Summary
- 2.0 Introduction
- 3.0 Discussion
  - 3.1. Meet with NRC Senior Resident Inspector

3.2. Variable Frequency Drive Motor
3.3. Non-Licensed Training
3.4. Health of EDGs
3.5. PCS
3.6. Meet with Station Director
3.7. Attend Plant Health Committee
3.8. Margin Management Program
3.9. ABVS
3.10. COVID-19 Update
4.0 Conclusions
5.0 Recommendations
6.0 References

E. Record of DCISC Tours of DCPP

F. DCISC Open Items List

G. DCISC Public Contacts

G.1 DCISC Telephone/Correspondence Log

G.2 DCISC Correspondence

G.3 Comments Received at Public Meetings

H. Proposed Second Restatement Charter (approved at February 2020 public meeting & Changes from Present Restated Charter

I Past DCISC Recommendations and PG&E Responses

J. DCISC Informational Brochure

K. Glossary of Terms

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE	
AGENDA TRANSMITTAL FORM	
MEETING DATE:	October 23, 2020
AGENDA ITEM:	XVI-B
AGENDA TITLE:	Update on Financial Matters and DCISC Activities During 2020-2021
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 the 2020 and 2021.

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

RECOMMENDED COMMITTEE ACTION: As appropriate

DCISC Fact-Finding and Public Meeting Agenda Items for 2020-2021

July 21-22, 2020 Fact-finding Meeting (PFP, RFW) (AR Exhibit D.1)

1. Meet with NRC Senior Resident Inspector
2. Compressed Air System Review with System Engineer
3. Observe Plant Health Committee Meeting
4. 2019 Radioactive Effluent Release Report & Radiological Environmental Operating Report
5. Containment Concrete Inspection with Camera Drone
6. Equipment Reliability Process Update
7. Operations Issue on Misposition Errors (Equipment Control Status)
8. DCPP Use of Social Media in Context of Emergency Response
9. Buried Piping and Tanks Program
10. Slight Rise in Unit 1 Power Operation Just Prior to its Curtailment to 89% Power Operation to Address an Issue with Supplemental Grid Protection
11. Update on INPO Evaluation Actions
12. Meet with DCPP Officer

August 19-20, 2020 Fact-finding Meeting (PL, RDM) (AR Exhibit D.2)

1. Meet with Nuclear Regulatory Commission (NRC) Senior Resident Inspector
2. License Amendment Request to Facilitate Auxiliary Feedwater Inspections
3. Unit 2 Forced Outage
4. Fire Protection and Detection Systems
5. Attend Corrective Action Review Board Meeting
6. Evaluation for Extending the Unit 1 Steam Generators Secondary Side Inspections
7. Containment Ventilation and Hydrogen Mitigation Systems
8. DCISC Member Meet with DCPP Officer
9. Employee Concerns Program
10. NRC Inspection Finding on Emergency Siren Maintenance
11. Status of Responding to the COVID-19 Pandemic
12. Self-Assessment Program
13. Attend Plan of the Weekend Review Meeting

September 9-10, 2020 Fact-finding Meeting (RJB, RFW) (AR Exhibit D.3)

1. NRC Licensing Issues Status
2. Outage Safety Training
3. Meet with DCPP Site Vice-President Paula Gerfen
4. Auxiliary Feedwater System License Amendment Request
5. 1R22 Refueling Outage Safety Plan
6. Meet with NRC Senior Resident Inspector
7. Control Rod Issues
8. Postponed/Cancelled Projects
9. Nuclear Instrumentation Systems
10. Overall Probabilistic Risk Assessment Program Update
11. Operational Decision-Making Program
12. Employee Retention Participation Update

October 22-23, 2020 Public Meeting (AR Exhibit B.3)

November 10 & 12, 2020 Fact-finding Meeting (RJB, RDM) (AR Exhibit D.4)

December 8-9, 2020 Fact-finding Meeting (PFP, RFW) (AR Exhibit D.5)

January 27-28, 2021 Fact-finding Meeting (PL, RDM) (AR Exhibit D.6)

February 16-17, 2021 Public Meeting (AR Exhibit B.6)

March 17-18, 2021 Fact-finding Meeting (RJB, RFW) (AR Exhibit D.7)

April 20-21, 2021 Fact-finding Meeting (PL, RDM) (AR Exhibit D.8)

May 11-12, 2021Fact-finding Meeting (PFP, RFW) (AR Exhibit D.9)

June 23-24, 2021 Public Meeting (AR Exhibit B.9)

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

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

September 222-3, 2021 Fact-finding Meeting (RJB, RDM) (AR Exhibit D.3)

October 19-20, 2021 Public Meeting

DCPP 2020-2021 Key Dates

NSOC Meetings (DCISC invited only to the 2-hour exit meeting on the final day, Thursday)
November 16, 2020 (final day 11/190
March 1, 2021 (final day 3/4)
July 12, 2021 (final day 7/15)
November 1, 2021 (final day 11/4)

Refueling Outages
1R22 October 4 – November 11, 2020
2R22 April 25 – May 28, 2021

Emergency Preparedness
12/2/2020 – Charlie Team Full Scope Drill

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE	
AGENDA TRANSMITTAL FORM	
MEETING DATE:	October 23, 2020
AGENDA ITEM:	XVI-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 Technical Consultant R. Ferman Wardell, P.E.	
RECOMMENDED COMMITTEE ACTION: As appropriate, review and provide direction.	

Diablo Canyon Independent Safety Committee Open Items List – 2020-2021

Open Item Type: **M= Monitor** **F = Follow-up** **I = Issue** Items in Red Italics are new or revised

ITEM NO.	TYPE	OPEN ITEM CATEGORY/DESCRIPTION	Last Actions	Next Action
CO		**Conduct of Operations (CO)**		
CO-7	M	Review DCPP 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 – and forced outages. (review trip LERs at public meetings). [Reviewed Unit 2 forced outage 3/20FF & 4/20FF – satisfactory.]	12/19PM 4/20FF *8/20FF*	Post-trip FFs & PMs
CO-9	F	Reactivity Management – review every 18 months. [Reviewed Reactivity Management 5/16FF, 4/18FF, and 11/19FF – satisfactory.]	List at end of OIL 11/19FF	Regularly 2Q21FF
CO-10	M	Mispositioning Errors (Equipment Status) – monitor the status of mispositioning errors and actions to resolve. [Reviewed at 11/15FF – satisfactory.] [Reviewed QV assessment of 2R20 outage. Some mispositioning issues. Follow up on resolution.] [Reviewed 4/20FF – needs follow-up at FFs]	7/18FF 4/20FF 7/20FF	*4Q20FF*
CO-11	M	Operator concerns and issues – review periodically the status of operator concerns and issues. [Reviewed Ops Human Performance & Ops Excellence Plan 8/16FF – satisfactory.] [Reviewed Ops Dept. performance 12/17FF – sat.] The DCISC team concluded [2/18PM] plans are in place to address areas identified for improvement in the Operations Department and the DCISC should continue to review Operations Department performance on a regular basis. [Reviewed Operations performance 4/20FF – satisfactory.]	8/16FF 12/17FF 12/18FF 4/20FF	2Q21FF
CO-13	M	Review any implementations of the CAISO load following policy that result in DCPP transients. Review any initiatives to operate DCPP 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 DCPP due to increasing incentives to curtail power output because of production or grid-related reasons. Mr. Peck and Dr. Peterson agreed this might be a suitable topic for a future DCISC fact-finding which should include representatives from the PG&E transmission organization. [Reviewed at 5/19FF – satisfactory.] [Reviewed 12/19FF, including Public Safety Power Shutoff Program.]	5/19FF 12/19FF	*3or4Q21 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 License Class plans 1/19FF – satisfactory. *Reviewed overall Retention Plan 9/20FF – satisfactory*	1/19FF 9/19FF *9/20FF*	4Q20FF

CM		Conduct of Maintenance (CM)		
CM-7	I	Review PG&E's progress in complying with (1) the amendment to 10CFR50.55a, which provides the requirements for ISI of containment structures (degradation) and (2) ASME Code requirements for steel liner weld inspections.	7/12FF 8/17FF 11/19FF	Each Pair of RFOs 3Q21FF
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. DCPP Assessment of Maintenance Risk and On-Line Maintenance Risk Procedures have been substantially upgraded with the addition of an Integrated Risk Review Team.	See list at end of OIL	Regularly
CM-13	M	Review Maintenance Department performance measures, staffing, etc. approximately annually. [Reviewed 1/20FF – satisfactory.]	1/20FF	1Q21FF
EN		**Engineering Programs (EN)**		
EN-16	F	DCPP Systems – review a system (or structure or component), system health, long-term plan, Maintenance Rule performance & walkdown with System Engineer at FFs. [Note: Systems reviewed are listed with dates at the end of this Open Items List.]	See list at end of OIL	Regularly
EN-19	F	Review every 12-18 months major Engineering Programs, including Configuration Management, Management, System Engineering (system health & long-term plans), Valve Testing, Margin Management, Staffing, etc. [Note: Programs reviewed are listed with dates at the end of this Open Items List.]	See list at end of OIL	Regularly
EN-20	F	Each Member should review or observe Plant Health Committee, Notification Review Team, Corrective Action Review Board, Performance Review Quarterly Meeting, and other regular meetings.	See list at end of OIL	Regularly
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.	12/18FF 11/19FF	4Q20FF
HP		**Human Performance: Human Errors and Improving Safety & Efficiency of Plant Performance**		
HP-1	M	Review human performance & human behavior items (including error reduction programs, HP PIs, aberrant behavior statistics, FFD, stress reduction programs, Personnel Accountability Policy, Human Performance Steering Committee & Subcomm, Centers of Excellence, Org. Development). [Review biennially operator aging, physical fitness, "no solo" issues, attention enhancement, stress management, & incentives for operator focus.	9/18FF 10/19PM 3/20FF	*4Q20FF*
HP-25	M	Further observations and improvements in the Management Observation Program should be reviewed by DCISC. [Reviewed 4/19FF – satisfactory.]	7/17FF 4/19FF	1 or 2Q21FF
HS		**Health, Nuclear Safety and Safety Conscious Work Environment**		
HS-6	F	Follow DCPP 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 8/20FF – satisfactory.]*	10/18PM 8/19FF *8/20FF*	*3Q21FF*
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.] *[Attended CARB 8/20FF – satisfactory.]*	See list at end of OIL	At least once per year
EP		**Emergency Preparedness (EP)**		

EP-2	M	Attend and observe DCPP emergency drills and exercises annually [including Hostile Action Based Exercises], paying special attention to JIC communications to the media and public, including radiation release communications to the public, use of social media, coordination of information release with SLO County, and extension of drills to better exercise FMTs & JMC. *[Next exercise 12/2/20 – full scope drill.]*	2/17PM 8/18FF 11/18FF	Next evaluated exercise (FFPM)
EP-3	M	Emergency preparedness during decommissioning. [Met with SLO OES 9/18FF – satisfactory there was concern by SLO County that their monies from PG&E would be reduced after operation ceases. [Met with new Director SLO Emergency Services 8/19FF. Director discussed with DCISC at February 2020 PM.]	10/18PM 8/19FF 2/20PM	Closed to *DEC-4 Close*
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 DCPP study of loss of ASW on core damage frequency.	9/17FF 9/18FF 9/19FF *9/20FF*	*3or4Q21* FF 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 DCPP seismic PRA April 2018 submittal.]	8/16FF 9/17FF	*4Q20FF?* RJB
NS		**Nuclear Safety Oversight and Review (NS)**		
NS-5	M	Monitor NSOC meetings periodically to observe their processes and their review of nuclear safety issues.	11/15FF 3/17FF	Next meeting *11/19/20*
NS-9	M	Monitor DCPP's program to track INPO Areas for Improvement. Review with DCPP Coordinator. [*Reviewed 7/20FF – satisfactory.]*	11/19FF *7/20FF*	*2Q21FF*
RP		**Radiation Protection (RP)**		
RP-3	M	Regularly review outage RP performance. [Reviewed 1R21 and 2R21 outage performance – satisfactory.]	3/19FF 12/19FF	Each RFO 12/20FF
RP-12	M	Review annual DCPP radioactivity release report each year. Review at Summer or Fall FFs. [Reviewed radiation release reports 7/18FF – satisfactory.]	7/19FF *7/20FF*	*2Q/21FF*
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.	11/19FF 4/20FF	2Q21FF
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).	7/18FF 12/19FF	Each RFO 12/20FF
ER		**Equipment Reliability and Life Cycle Management (ER)**		

ER-5	M	Monitor the Equipment Reliability Process approximately annually. The indicators for Deficient Critical Components Backlog and Operational Work-arounds rated as needing improvement and the DCISC should continue its review of this item in the future.	See list at end of OIL	Annually
OE		**Organizational Effectiveness & Development (OE)**		
OE-1	F	Review DCPP Operating Plan each January after development. [Reviewed 2/20PM – satisfactory.]	3/18FF 2/20PM	2/21PM
SE		**System and Equipment Performance/Problems (SE)**		
SE-26	M	Review reactor pressure vessel compliance status after next set of surveillance samples is analyzed and effective vessel lifetime projections are updated. [Reviewed 3/17FF – satisfactory.]	3/16FF 3/17FF 4/19FF	1R22 2R22
SE-39	F	Review and tour the inspections and repairs of concrete Intake Structures following selected refueling outages. [Reviewed at 7/09 FF, 6/13 FF, 11/14FF, 9/17FF, and 12/19FF – satisfactory.]	12/19FF	2R22 3Q21FF
SE-40	F	Monitor the status of transformers & leakage, failures, corrective actions. Follow status of transformer protection barrier. [Barrier project placed on hold.]	See list at end of OIL	Regularly
SE-42	F	Safety System Functional Failures – review annually. [Reviewed at 9/15FF – much improvement – continue to monitor.][Reviewed 3/22/17FF and 6/17FF – much improvement.]	6/17PM 8/19FF	4Q20FF
SE-49	F	Emergency Diesel Generators (EDGs) – [Reviewed at 5/20FF: U1 Green, U2 Green.]	See list at end of OIL	Regularly
SG		**Steam Generator Performance (SG)**		
SG-1	M	Results of inspections and tests occurring in outages 1R21 and 2R21.	10/18PM 3/20FF *8/20FF*	Post-RFO with SG inspection
OM		**Outage Management (OM)**		
OM-3	M	During outages, monitor Outage Coordination Center, Control Room, and containment walkdown/inspection (end of outage). Review outage turbine work. Review Steam Generator performance metrics and inspection results. [Reviewed Unit 2 forced outage – satisfactory.]	3/18FF 3/19FF 11/19FF 3/20FF	Each RFO 11/20FF
OM-4	M	Review Outage Safety Plan, safety margin trends, outage results, including clearances, following each outage at FFs and PMs. [Reviewed at 1/19FF & 9/19FF *&9/20FF* – satisfactory.]	9/19FF 12/19FF *9/20FF*	Each RFO *2/21PM*
OM-5	F	DCPP has determined that it needs to do a better job of foreign material exclusion (FME) and this resolution appeared satisfactory to the DCISC team. [Note: FME Program review dates at the end of the Open Items List.] [Reviewed 9/17FF – satisfactory. [Reviewed 4/19FF – need to follow up on supplemental outage worked training]	See list at end of OIL	Each RFO 12/20FF
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.	5/18FF 7/19FF 12/19FF	4Q20FF
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.] [Reviewed digital control cyber security 3/19FF – satisfactory.]	6/18PM 2/19PM 3/19FF	1Q21FF *RJB*
SF		**Independent Spent Fuel Storage Installation – ISFSI (SF)**		
SF-1		Monitor ISFSI operations, including cask transfer. Review following next campaign. [Reviewed ISFSI 7/18FF – satisfactory.] Reviewed future movement of spent fuel 4/19FF – satisfactory.]	4/19FF 8/19FF	4Q20FF
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	4/19FF 12/19FF	*4Q20FF*
SF-3	M	Review the seismic adequacy of ISFSI in its license extension. Use latest seismic analysis.	6/18PM 10/19PM	2Q22FF RJB
SC	**M**	**Seismic, Tsunami and Other External Events**		
SC-3	M	Long-Term Seismic Program: review periodically. Review significant seismic events as they occur. Reviewed at 6/09 PM. [Reviewed 3/10 FF – progress satisfactory. Continue to monitor.] 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. LTSP reviewed at 3/19FF – satisfactory.	6/15PM 11/15FF 8/16FF 3/19FF	1Q21FF RJB
SC-12	F	Workplace seismic safety – review annually. [Reviewed at 5/18FF – some problems – follow up on resolution and Control Room procedures "crash cart" stability. [Discrepancies in workplace seismic standards (e.g., unbraced furniture) were caused by inadequate knowledge transfer during Building Services personnel turnovers, although the plant had a written standard. [Reviewed 5/19FF – overall satisfactory – but two examples of unsecured tall cabinets. Notifications written.]	5/19FF 12/19FF	12/20FF PFP
FP		**Fire Protection (FP)**		
FP-5	M	Review NFPA-805-based Fire Protection Program and Systems every two-three years, including QV audits and NRC triennial inspections. Review the health and correction of degraded systems every six months. Monitor fire doors (Plant Door Life Cycle Management Plan) for correction of impairments [Fire doors Reviewed 11/17FF & 3/19FF - satisfactory.] [Reviewed NRC Triennial FP Inspection 1/19FF – satisfactory.]	7/17FF 11/17FF 1/19FF 3/19FF	1Q21FF
LD		**Learning & Development Programs (LD)**		
LD-3	M	Review non-license technical, operations & accredited training programs at least annually. [Reviewed Training during COVID-19 5/20FF – satisfactory.]	7/19FF 5/20FF	4Q20FF
LD-6	F	Observe operator license, re-qualification, classes periodically in FF meetings. Include Enhanced Simulator Training.] [Observed Ops TCOA training & Eng. DC Power System] [Reviewed FLEX training 11/17FF – sat.] [Reviewed licensed operator training 4/20FF *& 9/20FF* – satisfactory.]	1/20FF 4/20FF *9/20FF*	*4Q20FF*
NR		**Nuclear Regulatory Commission Items (NR)**		

NR-3	M	Monitor the Non-Cited Violation Tracking & Trending Program annually at the Jan/Feb Public Meetings.	3/year	Each PM
NR-4	F	Meet with NRC Resident Inspectors regularly.	Most FFs	Regularly
BDB		**Beyond Design Basis Events (e.g, Fukushima Event)**		
DEC	F	**Decommissioning**		
DEC-1	F	Review DCPP decommissioning plans periodically as a result of the Joint Proposal forced plant shutdown in 2025. Review the timing of spent fuel transfer from wet to dry storage and when the spent fuel pools are decommissioned the plant will lose the capability to open multipurpose canisters for inspection. DCISC should actively review the decommissioning plans for DCPP 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 DCPP. [Reviewed at 11/18FF – satisfactory. Continue to monitor.] He [Mr. Jones] reported part of the preplanning efforts to meet the charge from the CPUC is the completion of a fuel study that is now in its second draft for review to determine how DCPP can move past the ten-year window to achieve a seven-year window. Dr. Budnitz reported the DCISC will wait and watch the report which comes out of that evaluation.	1/17FF 10/17PM 3/18FF 10/18PM 11/18FF 2/19PM 10/19PM	10/20PM
DEC-3	F	DCISC is at this time principally interested in decommissioning due to the potential impacts during the period of plant operation and will seek clarification about whether the DCISC should play a role post-shutdown.	6/19PM 10/19PM 2/20PM	10/20PM
DEC-4	F	Emergency preparedness during decommissioning. [Met with SLO OES 9/18FF – satisfactory there was concern by SLO County that their monies from PG&E would be reduced after operation ceases. [Met with new Director SLO Emergency Services 8/19FF. Director discussed with DCISC at February 2020 PM.]	10/18PM 8/19FF 2/20PM	10/20PM *Or* *2/21PM*
O		**Other Items (O)**		
O-1	F	Perform observations of evolutions (work processes) within the plant periodically. Continue with these about annually. Work process observations: Observe in the plant work processes important to nuclear safety, such as operator rounds, Control Room shift turnover, surveillance tests, preventive and corrective maintenance, system modifications, system walk downs with system engineers; outage activities, etc. [Observed Operations shift turnover brief 12/19FF - satisfactory.]	12/19FF 1/20FF	*12/20FF*
O-2	F	COVID-19 response/initiatives/practices. Review at each FF and PM until threat passes	4/20FF 5/20FF *8/20FF*	*1Q21FF*
		Public Meeting Items (PM) (Reference: Public Meeting Minutes Pages)		
Oct 2019 PM 2	F	The DCISC team concluded the Buried Tanks and Piping Program appears to be effectively implemented but the Committee should review the new program sometime in the first half of 2020 to assess the results of the new Asset Management Plan. *Reviewed 7/20FF – satisfactory – close.*	10/19PM *7/20FF*	*Close*
3	F	The DCISC team found the System Engineering Department to be effective in managing the health of plant systems but the Department is undergoing significant organizational changes and Mr. McWhorter recommended the DCISC review the System Engineering Department again in late 2020.	10/19PM	4Q20FF

Feb 2020 PM 1	F	Mr. Wardell reported a number of inspections are conducted of the Containment structure including of its concrete surface every five years and the plant is now using a drone with a very high-resolution camera for these inspections. Dr. Peterson inquired whether the camera has stereoscopic visualization capabilities and Mr. Wardell reported the DCISC could follow up on that question. *Reviewed 7/20FF – satisfactory. Close.*	2/20PM *7/20FF*	*Close*
6	F	In response to Dr. Peterson's question concerning a slight rise in U-1 power operation just prior to its curtailment to 89% power operation to address an issue with supplemental grid protection Mr. Harbor stated he did not believe the rise in U-1 power was related or linked to U-2 returning to full power operation at the same time and Mr. Harbor agreed to review with the DCISC the slight power rise for Unit-1 in December 2019 during a future fact-finding. *Reviewed 7/20FF – instrumentation error, no power rise. Close.*	2/20P *7/20FF*	*Close*
7	F	Dr. Peterson remarked the Committee has reviewed the use of social media in context of emergency response and he described social media as an excellent way to communicate during an emergency. Dr. Peterson suggested scheduling a future fact-finding to further review how these capabilities may be evolving. *Consider social media for pandemic emergencies.*	2/20PM *7/20FF*	*Close*
8	F	Dr. Budnitz commented the DCISC intends to schedule future fact-finding visits to discuss with Mr. Guzzardi and his colleagues OES' plans and the preparations being developed to manage the transition that will be necessary as DCPP prepares and closes its electricity generation activities.	2/20PM	11/20FF
9	F	Mr. Weisman stated Mr. Baldwin's estimation was consistent with A4NR's understanding that the Part 50 Licenses would not be terminated at the time all spent nuclear fuel was stored at the ISFSI and the Part 50 Licenses would continue to be required until at least circa 2032-2035 at the earliest and he asked the Committee for confirmation as to that understanding. [Respond at July 1-2, 2020 PM.]	2/20PM *7/20PM*	*Close*
13	F	In response to Consultant McWhorter's request, Mr. Hamzehee agreed to include in the materials Mr. Hamzehee regularly provides for review at the DCISC's public meetings a matrix that tracks the present status of identified cross-cutting aspects for the current performance period.	2/20PM	*10/20PM Then Close*
16	F	Dr. Peterson reported that during the PG&E bankruptcy period the budget for DCPP has stayed stable and accordingly there has not been a reason for the Committee to have a significant concern but this is an area that should be closely monitored. *Reviewed at 7/20FF – satisfactory – close.*	2/20PM *7/20FF*	*Close*
July 2020 PM 1	*F*	*Dr. Peterson remarked there is much to be learned from the response to the pandemic including certain practices that are likely to continue after the pandemic concludes and this is one such aspect which is worthwhile for the DCISC to review during a future fact finding.*	*7/20PM*	*12/20FF*
2	*F*	*The FFT concluded the Unit 2 forced outage was appropriately handled but the DCISC should continue to review the event to find the cause of the rod control problems and to assess the corrective actions. [Reviewed at 9/20FF – root cause and corrective actions satisfactory. Close.]*	*7/20PM 9/20FF*	*Close*
3	*F*	*This issue was reviewed by the PG&E Transmission organization for any effect elsewhere in the transmission system and Dr. Budnitz observed an inquiry might be warranted into the mis-wiring extent of condition report. Mr. Garcia confirmed the root cause evaluation was shared with Electric Operations and Mr. Garcia promised to check and ensure that the Root Cause Evaluation for the mis-wired condition was or will be provided to the DCISC for its review if it was not already provided as part of the monthly document packages.*	*7/20PM*	*Awaiting DCPP*

4	F	DCPP is performing an evaluation to consider seeking to change the inspection interval for the secondary side inspection from three to six cycles and, if granted, no further secondary side inspection for the Unit 1 SGs would be necessary. The FFT recommended the DCISC conduct a fact-finding review of the evaluation when it is completed. In response to Dr. Peterson's inquiry Mr. McWhorter stated the Committee should also review whether sludge lancing would still be performed for Unit 1 if the inspection interval were changed.	7/20PM	Awaiting DCPP evaluation
5	F	Mr. McWhorter reported that future fact-findings have considered DCPP's response to the pandemic and he stated the FFT during the March 2020 fact-finding found DCPP's response to the coronavirus pandemic to be appropriate and he recommended that the DCISC continue to monitor the plant's response as the pandemic continues.	7/20PM	Close to O-2
6	F	Dr. Budnitz suggested including an inquiry as to the utility of the CD in the cover letter which accompanies each CD.	7/20PM	10/20PM
7	F	In response to Consultant McWhorter's request Mr. Prentice and Mr. Garcia stated that for future presentations on DCPP regulatory performance a matrix will be presented that tracks the present status of identified cross-cutting aspects including the numbers that are open or approaching the margin which would trigger additional NRC inspection activity. Mr. Prentice, in response to Consultant McWhorter's request, also agreed to provide for future presentations on regulatory performance a list of potential future LARs. [See Item 13 in February 2020 PM above.]	7/20PM	Close after 10/20PM
8	F	Mr. Wardell reported an action plan to return Operations to Green status has been implemented and he stated this plan appears promising and the DCISC should continue to monitor this issue.	7/20PM	Close to CO-10
9	F	A Yellow rating for Operations indicates unacceptable performance and more stringent actions are required and more follow-up is called for and the Fact Finding Report makes this recommendation to the Committee to follow this issue at every succeeding fact-fining visit until a resolution is achieved and the matter is on the agenda for this and future public meetings.	7/20PM	Close to CO-10
10	F	Dr. Peterson stated one such criterion might be the amount California ratepayers will pay for decommissioning DCPP and Dr. Peterson stated the DCISC should speak to the significance of the differences in safety in context of cost to the ratepayers. Dr. Budnitz remarked the Committee might start by trying to come to a consensus about the relative risk of the activities described in the Study compared to the risk when the plant is operating and generating electricity and he observed this is clearly within the DCISC's expertise and its remit from the CPUC. The Members agreed that, with the delegation to the Consultants to develop and agenda, a discussion during the next public meeting of this topic would be appropriate and the discussion could lead to a conclusion or a recommendation by the Committee as to the approaches that might be used to manage the off-loading SNF from the SFPs.	7/20PM	10/20PM

11	*F*	*Dr. Peterson directed that a fact-finding be held to review the information cited by Mr. Weisman with, if necessary, appropriate protection for proprietary information so that the information would be available at the October 2020 DCISC public meeting. [Mr. Weisman discussed the evaluation of vendor proposals expected to be completed by September 2020, to be followed by requests for bids and he observed that the DCISC having access to the information developed in those contexts would greatly help to inform the Committee's discussion in October 2020. Mr. Weisman confirmed Dr. Peterson's observation that there is a nexus between safety and financial considerations and while he acknowledged Dr. Budnitz' observation that some of the funds for decommissioning will come from federal taxpayers, he stated his belief that some funds will also come from California's ratepayers.]*	*7/20PM*	*10/20PM*
12	*F*	*Mr. Petersen remarked two Operation Department quick-hit assessments should be completed in August 2020 and Mr. Wardell stated these might be a topic for a future fact-finding possibly in September 2020.*	*7/20PM*	*4Q20FF*
13	*F*	*In general, the FFT concluded the Margin Management Process was effective and Mr. McWhorter reported the DCISC representatives recommended this as a program to be regularly reviewed by the DCISC.*	*7/20PM*	*Close to OIL Pgm List*
14	*F*	*He [Mr. McWhorter] reported most of the actions have now been completed and the system is in monitoring status and the FFT recommended the DCISC review the Auxiliary Building Ventilation System again during 2021 to assess the effectiveness of these corrective actions. The FFT concluded the Auxiliary Building Ventilation System was in fair health and should be reviewed to assess corrective actions in about one year.*	*7/20PM*	*2Q21FF*

DCPP Systems/Components Reviewed Periodically

4 kV – Jan 2020
230 kV & 500 kV – Dec 2019
Aux Feedwater – Mar 2020
Aux Saltwater – Mar 2020
Aux Bldg Ventilation – May 2020 (review next mid-2021)
Chemical & Volume Control System and High Pressure Injection – Mar 2017
Component Cooling Water – Apr 2020
Compressed Air – *Jul 2020*
Condensate & Feedwater – Sep 2019
Containment Structure – Nov 2019
Containment Spray – Aug 2019
Containment Ventilation and H2 Purge – *Aug 2020*
Control Room Simulator – Sep 2018
Control Room Ventilation – April 2018
Digital Systems – Sep 2018
DC Power – Apr 2019
EDG – May 2020
Fire Protection & Detection Systems – *Aug 2020*
Nuclear Instrumentation & In-core Instrumentation – *Sep 2020*
Plant Protection System – Nov 2017
Radiation Monitoring – Jan 2018
Radwaste Processing – Aug 2017
Reactor Coolant System & Pumps – Aug 2018
RCS Process Control System – May 2020
Refueling Equipment – Dec 2018

RHR – Dec 2019
Rod Control & Indication – *Sep 2020*
Safety Injection Pumps Nov 2018
Spent Fuel Poo Cooling & HVAC – May 2018
Steam Generators – *Aug 2020*
Special Protection System – Mar 2020
Turbine/Generator – TBD

DCPP Programs Reviewed Periodically
ALARA – Sep 2019
Air Operated Valves – May 2018
Benchmarking – Nov 2018
Boric Acid Corrosion Control – Apr 2018 (review biennially)
Buried Piping & Tanks – *Jul 2020*
Chemistry – Aug 2018
Cranes – Sep 2019
Configuration Management – May 2019
Corrective Action – CARB – *Aug 2020*
Emergency Preparedness Exercises – Nov 2018
Employee Concerns Program – *Aug 2020*
Equipment Environmental Qualification – Mar 2020
Equipment Reliability – *Jul 2020*
Excellence Plan – March 2018
Fire Doors & Door Life Cycle Mgm't. Plan – Mar 2019
Fire Protection Program (NFPA-805) – Aug 2018
FLEX Program – Apr 2019
Flow Accelerated Corrosion – Apr 2019
Foreign Material Exclusion – Dec 2019
In-service Inspection Program – Apr 2019
Integrated Risk Assessment Program – Apr 2020
Large Motors – Jan 2019
Long-Term Capital Planning Process – Dec 2016
MIDAS – Aug 2018
Margin Management Program – May 2020
Motor Operated Valves – TBD
Notification Review Team – Mar 2020
Nuclear Fuel Program – Jul 2020
On-Line Maintenance – Apr 2020
Operating Experience – Aug 2018 (review biennially)
Operability Assessment Program – Mar 2017
Operational Decision Making – *Sep 2020FF*
PRA Programs (non-seismic) – Sep 2017
Performance Improvement – Apr 2019
Performance Review Quarterly Meeting – May 2015
Plant Health Committee – May 2020 (Jul 2020?)
Reactivity Management – Nov 2019
Safety-Security Interface – Jul 2019
Self-Assessment – *Aug 2020*
Single Point Vulnerabilities – Sep 2019
Seismic PRA – Sep 2017
Seismically Induced System Interactions – 5/17FF (review biennially)
Software QA -- March 2018
Spent Fuel Management – Mar & Apr 2020
System Engineering – Jul 2019
Transformers, Large – May 2018
Trending Analysis – Jan 2014
Troubleshooting – Jan 2020
Tsunami Hazard Analysis – Sep 2017
Vibration Monitoring – Jul 2019

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE	
AGENDA TRANSMITTAL FORM	
MEETING DATE:	October 23, 2020
AGENDA ITEM:	XVII-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 July 2020.

RECOMMENDED COMMITTEE ACTION: None, information item only.

June
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

Date	LBIE No.	Title
6/4/2020	2020-013	PRA 19-05 Rev1 (TMRE)
6/22/2020	2020-014	(OUO) Physical Security Plan

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

Date	Letter No.	Title
6/16/2020	DCL-20-047	10 CFR Part 21 Notification: Inadequate Dedication of Replacement Thermocouples
6/17/2020	DCL-20-048	(OUO) Request for Exemption from Specific Requirements of 10 CFR 73, Force-on-Force Requirements

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
6/2/2020	DIABLO CANYON NUCLEAR POWER PLANT, UNITS 1 AND 2 – APPROVAL OF EXEMPTION FROM THE REQUIREMENTS OF 10 CFR 50.71(e)(4) (EPID L-2020-LLE-0059 [COVID-19])
6/12/2020	NUCLEAR PROCUREMENT ISSUES CORPORATION STRATEGIC ALLIANCE FOR FLEX EMERGENCY RESPONSE COMMITMENT TO NRC ORDER EA-12-049
6/23/2020	DIABLO CANYON NUCLEAR POWER PLANT, UNITS 1 AND 2 – PROJECT MANAGER ASSIGNMENT
6/24/2020	Exemption Request from Certain Requirements of 10 CFR PART 73, Appendix B, General Criteria for Security Personnel (EPID L-2020-LLE-0101 [COVID-19])

D. PSRC Documents (PSRC Minutes)

Date	Doc. No.	Title
6/2/2020	2020-008	Tornado Missile Risk Evaluator, PRA Analysis Inservice Testing Program, 4th 10-Year Interval
2/15/2020	2020-002	Readiness for Restart
3/24/2020	2020-004	Application Plant Staff Review Committee Sub-Committee Diablo Canyon Independent Spent Fuel Storage Installation License Renewal
4/21/2020	2020-006	Physical Security Plan
4/6/2020	2020-005	E-Plan Section 7, "Emergency Facilities and Equipment" E-Plan Section 8, "Maintaining Emergency Preparedness" E-Plan Appendix F, "ERO On-Shift Staffing Analysis Report"
5/26/2020	2020-007	E-Plan Section 1
6/16/2020	2020-009	Physical Security Plan

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

Type	Doc. No.	
2 WGE	SAPN 51071318	DA-Unit 2 Maintenance Rule PL3 Goal Sett
2 WGE	SAPN 51074203	DA-Unit 1 BU104 found propped open
2 WGE	SAPN	DA-Processing Procedure Violation

	51075607	
2 WGE	SAPN 51076261	DA-Security Delay Gate/Barrier found uns
Eff Eval	SAPN 50627559	IERL2-13-53: LOOP Analys Effct Rvw
6/30/2020		List of DN 5 Priority 5.1 and 5.2 Created 6-1-20 and 6-30-20
6/2/2020		20 Oldest Non-LTCA DA Notifications as of 6/2/2020
6/2/2020		CAP Summary
6/22/2020		DCPP CAP Station Index
6/22/2020		Open LTCA DA Notifications Station Significance 1 & 2 As of 6/22/2020
6/22/2020		Open RCEs as of 6/22/2020
5/6/2020		Performance Improvement Status Summary
6/3/2020		Performance Improvement Status Summary

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

Date	Doc. No.	Title
6/2/2020		Quality Digest; Information You Can Use; June Edition
6/29/2020	#2020-IA-06	2020 Operations and Technical Specifications Audit

G. Nuclear Safety Culture Monitoring Panel Reports

Date	Doc. No.	Title
6/30/2020		NUCLEAR SAFETY CULTURE REVIEW REPORT 2ND PERIOD, 2020 SCLT MEETING: JUNE 11, 2020 FINAL REPORT: JUNE 30, 2020

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

Date	Doc. No.	Title

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

Date	Doc. No.	Title
1/7/2020		Generation Operating Plan 2020 – 2024, No new updates this month.

PPIR		There is no PPIR for this month.
Station Initiative		There are no new Station Initiatives for this month.
6/16/2020		June 2020 Engineering Services Performance Improvement Dashboard
		1Q20 Industrial Safety Performance Improvement Dashboard
6/16/2020		June 2020 Security & Emergency Services Performance Improvement Dashboard
6/16/2020		June 2020 Operations Services Performance Improvement Dashboard
6/16/2020		June 2020 Maintenance PI Dash Board

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	6/17/2020	Control Rod Bank D Position
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

N. Miscellaneous

Date	Title
	There are no miscellaneous documents for this month.

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 2022	T+1 Performance Critique
	Week 2023	T+1 Performance Critique
	Week 2024	T+1 Performance Critique
	Week 2025	T+1 Performance Critique
	2019-2022	T+1 Performance Critique 2019-2022

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
7/1/2020	DCL-20-053, DIL-20-007	Emergency Plan Update
7/9/2020	DCL-20-058	Temporary Exemption Request from 10 CFR 50 Appendix E Biennial Emergency Preparedness Exercise Requirements due to COVID-19 Pandemic
7/21/2020	DCL-20-061	Request for Exemption from Specific Requirements of 10 CFR 73, Firearms Requalification **(2.390)**
7/30/2020	DCL-20-064 DIL-20-008	Revision 15 of the Physical Security Plan **(2.390)**

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
7/302020	DIABLO CANYON NUCLEAR POWER PLANT, UNITS 1 AND 2 – EXEMPTION FROM CERTAIN REQUIREMENTS OF 10 CFR PART 73, APPENDIX B, "GENERAL CRITERIA FOR SECURITY PERSONNEL," SECTION VI (EPID L-2020-LLE-0117 [COVID-19])

D. PSRC Documents (PSRC Minutes)

Date	Doc. No.	Title
6/16/20	**2020-009**	Physical Security Plan
7/14/20	**2020-010**	E-Plan, Section 4
7/20/20	**2020-011**	Review FDOR on 2Y22 Scope Decision for Unit 2 RCP Seals and Make Recommendation to Station Director
7/29/20		PSRC Members/Alternates

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

Type	Doc. No.	Title
2 WGE	SAPN 51017810	DA-QDEF - Shielding inspection not perfo
2 WGE	SAPN 51036900	DA-Declining Human Performance Trend
2 WGE	SAPN 51042617	DA-U2 SFP crane contact w/ swing gate
2 WGE	SAPN 51049177	DA-TVA-21 Radiator Old vs. New fitup
2 WGE	SAPN 51054432	DA-RHR 2-1 recirc flow above Action High
2 WGE	SAPN 51065019	DA-U1 - PC 98 - Fire Protective Barriers
2 WGE	SAPN 51070277	DA-QAAF-5 Examples of Pkg Protection Def

2 WGE	SAPN 51070292	DA-QAAF: Procurement Self-Assessments
2 WGE	SAPN 51070568	DA-assessment of comp measure
2 WGE	SAPN 51071819	DA-Security Negative HU Trend
2 WGE	SAPN 51074279	DA-Eval Continued Increased Siren Failur
2 WGE	SAPN 51077760	DA-Comp measure released w/ inactive zon
2 WGE	SAPN 51078462	DA-Control Band D, Group 1 is 9 steps of
2 WGE	SAPN 51078534	DA-Ammunition Discovered During Search
2 WGE	SAPN 51070291	DA-QAAF: SDS sheet program deficient
Eff. Eval	SAPN 50939622	IER L2-17-9 Weakness in MA Fundamentals
7/31/2020		List of DN 5.1 and 5.2 Created 7-1-20 – 7-31-20
7/31/2020		DCPP 1 WGE and 2 WGE Notifications Completed 7/1/20 – 7/31/20
7/1/2020		DN-DA Initiation Rate
7/27/2020		DCPP CAP Station Index
7/6/2020		CAP Summary
7/27/2020		Open LTCA DA Notifs Station Significance 1 & 2 as of 7/27/2020
7/6/2020		20 Oldest Non-LTCA DA Notifications as of 7/6/2020
7/27/2020		Open RCEs As of 7/27/2020
7/6/2020		Performance Improvement Status Summary

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

Date	Doc. No.	Title
7/7/2020		Quality Digest Information You Can Use, July Edition 2020
7/2/2020	# 2020-QP-01	Quality Performance Assessment Report (QPAR) – First Period 2020 – December 2, 2019 through June 1, 2020
7/9/2020	QVA # 2020-AS-05	1R22 Nuclear Fuel Receipt Inspection
7/28/2020	#	2020 Cyber and Physical Security Audit

	2020-IA-03	

G. Nuclear Safety Culture Monitoring Panel Reports

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

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

Date	Doc. No.	Title
7/29/2020	SAPN 51042025	Benchmark LTDN sys Demin/Fltr performanc
3/23/2020	SAPN 51070563	Region 4 RPM/NRC meeting benchmark
8/4/2020	SAPN 51073764	Benchmark - Site Std Handbook
7/29/2020	SAPN 51061519	QHSA for OP1.ID3 reactivity management
6/30/2020	SAPN 51068603	QHSA - Tactical Proficiency
7/14/2020	SAPN 51080124	QHSA of WHSE Packaging/Storage practices
7/14/2020	SAPN 51081322	QHSA of Procurement RMS practices
7/15/2020	SAPN 51081501	**Quick Hit Self Assessment - Crit Spares**

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

Date	Doc. No.	Title
1/7/2020		Generation Operating Plan 2020 – 2024, No new updates this month.
6/25/2020	PPIR	Diablo Canyon Power Plant; Plant Performance Improvement Report; Achieving Results; Data: May 2020
7/27/2020	PPIR	Diablo Canyon Power Plant; Plant Performance Improvement Report; Achieving Results; Data: June 2020
Station Initiative		There are no new Station Initiatives for this month.
7/9/2020		July 2020 Security & Emergency Services Performance Improvement Dashboard
7/16/2020		July 2020 Engineering Services Performance Improvement Dashboard
7/15/2020		July 2020 Maintenance PI Dashboard

7/16/2020		July 2020 Operations Services Performance Improvement Dashboard
7/15/2020		2Q20 Industrial Safety Performance Improvement Dashboard

J. INPO

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

K. Operational Documents (ODM Minutes, POAs)

Date	Doc. No.	Title
ODMs		There are no ODMs for this month.
POA		There are no new POAs for this month.
8/4/2020		Diablo Canyon Power Plant Daily Load Profile; Daily Capacity Factor Power History Curves

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
		Battery 1-1 Debris Risk Assessment

N. Miscellaneous

Date	Title
	There are no miscellaneous documents for this month.

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 2026	T+1 Performance Critique
	Week 2027	T+1 Performance Critique
	Week 2028	T+1 Performance Critique
	Week 2029	T+1 Performance Critique
	Week 2030	T+1 Performance Critique
	Week 2023-2027	T+1 Monthly Performance Critique 2023-2027

August
List of Documents Transmitted Electronically

A. Licensing Basis Impact Evaluations

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

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

Date	Letter No.	Title
8/12/2020	DCL-20-066	License Amendment Request 20-01 Exigent Request for Revision to Technical Specification 3.7.5, "Auxiliary Feedwater System"
8/13/2020	DCL-20-067 DIL-20-009	Revision 16 of the Physical Security Plan (2.390)
8/16/2020	DCL-20-068	Response to NRC Request for Additional Information Regarding "License Amendment Request 20-01, Exigent Request for Revision to Technical Specification 3.7.5, 'Auxiliary Feedwater System'"
8/18/2020	DCL-20-069	Response to NRC Request for Additional Information Regarding "License Amendment Request 20-01, Exigent Request for Revision to Technical Specification 3.7.5, 'Auxiliary Feedwater System'"
8/20/2020	DCL-20-072	Response to Additional NRC Request for Additional Information Regarding "License Amendment Request 20-01, Exigent Request for Revision to Technical Specification 3.7.5, 'Auxiliary Feedwater System'"
8/25/2020	DCL-20-070, DIL-20-010	Emergency Plan Update
8/31/2020	DCL-20-063	License Amendment Request 20-02, Non-Voluntary License Amendment Request to Revise Technical Specifications 3.2.1, $F_Q(Z)$, to Implement Methodology from WCAP-17661, Revision 1, "Improved RAOC and CAOC F_Q Surveillance Technical Specifications"

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
8/31/2020	DIABLO CANYON NUCLEAR POWER PLANT, UNITS 1 AND 2 – ISSUANCE OF AMENDMENT NOS. 236 AND 238 RE: REVISION TO TECHNICAL SPECIFICATION 3.7.5, AUXILIARY FEEDWATER (AFW) SYSTEM" **(EXIGENT CIRCUMSTANCES)** (EPID L-2020-LLA-0176)

D. PSRC Documents (PSRC Minutes)

Date	Doc. No.	Title
PSRC Minutes		
8/18/2020	2020-016	Response to Request for Additional Information Regarding License Am Emergency Risk-Informed License Amendment Request to Revise Tec "Auxiliary Feedwater System"

8/20/2002	2020-017	Response to Request for Additional Information Regarding License Am Emergency Risk-Informed License Amendment Request to Revise Tech "Auxiliary Feedwater System"
8/25/2020	2020-018	License Amendment Request 20-02, Non-Voluntary License Amendment Request to Revise Technical Speci Implement Methodology from WCAP-17661, Revision 1, "Improved RA Surveillance Technical Specifications"

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

Type	Doc. No.	Title
ACE	SAPN 51078484	DA-Permit Required Confined Space Entere
ACE	SAPN 51080669	DA-Debris found in Batt 1-1, Cell 47
1 WGE		There are no 1 WGEs for this month.
2 WGE	SAPN 51068044	DA-OPS trend in N/As and partial proc
2 WGE	SAPN 51068066	DA-Fan S-33 Low Flow trip
2 WGE	SAPN 51071850	DA-Improper storage of pistol
2 WGE	SAPN 51074953	DA-QAAF: Do Not Repair Process
2 WGE	SAPN 51078547	DA-QDEF AD3.ID6 not desig Form as record
2 WGE	SAPN 51078549	DA-QDEF Problem not reported in CAP
2 WGE	SAPN 51078670	DA-QDEF Inef Mgmt of SGI combo changes
2 WGE	SAPN 51079554	DA-QAAF: Security Lighting #2020-IA-03
2 WGE	SAPN 51079929	DA-PI-5001 ISO valve 1-23P-13C found CLO
2 WGE	SAPN 51080599	DA-VA Door 163 Found Unsecure
2 WGE	SAPN 51083325	DA-Potential Trend OPS procedure review
2 WGE	SAPN 51083332	DA-Incorrect circuit breaker cycled
2 WGE	SAPN 51082264	DA-STP R-19 not performed per STP I-1b
2 WGE	SAPN 51082319	DA-Late Fire Rove Zone 8-B-2

Eff. Eval	SAPN 51041900	Eff Eval SAPN 51035842 (Bus F Transfer)
8/31/2020		List of DN 5.1 and 5.2 Created 5-1-20 – 5-31-20
8/31/2020		DCPP 1 WGE and 2 WGE Notifications Completed 8/1/20 – 8/31/20
8/24/2020		DCPP CAP Station Index
8/3/2020		CAP Summary
8/3/2020		DN – DA Initiation Rate
8/24/2020		Open LTCA DA Notifs Station Significance 1 & 2 as of 8/24/2020
8/3/2020		20 Oldest Non-LTCA DA Notifications as of 8/3/2020
8/24/2020		Open RCEs As of 8/24/2020
8/3/2020		Performance Improvement Status Summary

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

Date	Doc. No.	Title
8/4/2020		Quality Digest Information You Can Use, August Edition 2020
8/10/2020	QVA # 2020-AS-06	Geosciences Quality Related Work
8/19/2020	#2020-IA-08	2020 Training and Qualifications Program Audit

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
9/2/2020	SAPN 50989761	Operability Program Simplific. Benchmrk
9/2/2020	SAPN 51029324	Informal Benchmark - FPP Palo Verde
9/2/2020	SAPN 51061648	Conduct Access/FFD benchmarking
9/2/2020	SAPN 51011244	QHSA - Documentation
9/2/2020	SAPN 51035987	QHSA: 2018 Engineering Reorg Efficacy

9/2/2020	SAPN 51041906	2019 WANO Feedback - OWA/OB/Alarms
9/2/2020	SAPN 51058478	QHSA For NRC IP 71124.05
9/2/2020	SAPN 51065233	QHSA: Perf. Monitor. Prog. Effectiveness
9/2/2020	SAPN 51065500	Perform QHSA against NRC IP 71124.08
9/2/2020	SAPN 51068613	Quick Hit SA- Access Control 2020
9/2/2020	SAPN 51077470	Pre-Fire Protection Team Inspection SA

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

Date	Doc. No.	Title
1/7/2020		Generation Operating Plan 2020 – 2024, No new updates this month.
8/27/2020	PPIR	Diablo Canyon Power Plant; Plant Performance Improvement Report; Achieving Results; Data: July 2020
Station Initiative		There are no new Station Initiatives for this month.
8/5/2020		August 2020 Security & Emergency Services Performance Improvement Dashboard
8/13/2020		August 2020 Engineering Services Performance Improvement Dashboard
8/11/2020		August 2020 Maintenance PI Dashboard
8/16/2020		August 2020 Operations Services Performance Improvement Dashboard

J. INPO (NSOC Only)

Date	Doc. No.	Title
8/30/2020		Diablo Canyon Station IPSR
8/21/2020		PG&E Corporate IPSR

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.

August
List of Documents Transmitted Electronically

L. Safety Limit Violation Report

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

M. Significance Determination Process Calculations

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

N. Miscellaneous

Date	Title
	There are no miscellaneous documents for this month.

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 2031	T+1 Performance Critique
	Week 2032	T+1 Performance Critique
	Week 2033	T+1 Performance Critique
	Week 2034	T+1 Performance Critique
	Week 2035	T+1 Performance Critique
		T+1 Monthly Performance Critique 2028-2031

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
9/10/2020	DCL-20-075	Submittal of Updated Final Safety Analysis Report, Revision 25
9/10/20	DCL-20-076	Technical Specification Bases, Revision 12
9/15/2020	DCL-20-077	Unit 2 Licensee Event Report 2020-002-00, Unit 2 Manual Reactor Trip Due to Increased Main Generator Hydrogen Usage
9/24/2020	DCL-20-081, DIL-20-011	Annual Review of the Emergency Action Levels
9/24/2020	DCL-20-082, DIL-20-012	Annual Review of the Emergency Action Levels

C. NRC Incoming Correspondence (including Inspection Reports)

Date	Title
7/22/2020	DIABLO CANYON POWER PLANT, UNITS 1 AND 2 – INTEGRATED INSPECTION REPORT 05000275/2020002 AND 05000323/2020002
8/13/2020	Teleconference with Pacific Gas and Electric Company Regarding an Exigent Amendment Request to Modify Diablo Canyon Power Plant, Units 1 and 2, Technical Specification 3.7.5, "Auxiliary Feedwater (AFW) System" (EPID L-2020-LLA-0176)
8/13/2020	Diablo Canyon Nuclear Power Plant, Units 1 and 2 – Public Notice of Application for Amendments to Facility Operating Licenses (EPID L-2020-LLA-0176)
8/14/2020	Diablo Canyon request for additional information: Exigent License Amendment Request for Application to provide a new Technical Specification 3.7.5, "Auxiliary Feedwater System," Condition G (EPID: L-2020-LLA-0176)
8/17/2020	Diablo Canyon additional request for additional information: Exigent License Amendment Request for application to provide a new Technical Specification 3.7.5, "Auxiliary Feedwater System," Condition G (EPID: L-2020-LLA-0176)
8/20/2020	Diablo Canyon additional request for additional information: Exigent License Amendment Request for application to provide a new Technical Specification 3.7.5, "Auxiliary Feedwater System," Condition G (EPID: L-2020-LLA-0176)
8/24/2020	SUMMARY OF AUGUST 14, 2020, TELECONFERENCE WITH PACIFIC GAS AND ELECTRIC COMPANY REGARDING AN EXIGENT LICENSE AMENDMENT REQUEST TO MODIFY TECHNICAL SPECIFICATION 3.7.5, "AUXILIARY FEEDWATER (AFW) SYSTEM," FOR DIABLO CANYON NUCLEAR POWER PLANT, UNITS 1 AND 2 (EPID L-2020-LLA-0176)

September
List of Documents Transmitted Electronically

9/1/2020	UPDATED INSPECTION PLAN FOR DIABLO CANYON POWER PLANT, UNITS 1 AND 2 (REPORT 05000275/2020005 AND 05000323/2020005)
9/3/2020	DIABLO CANYON NUCLEAR POWER PLANT, UNITS 1 AND 2 – INDIVIDUAL NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENTS TO FACILITY OPERATING LICENSES AND OPPORTUNITY FOR A HEARING (EPID L-2020-LLA-0176)
9/11/2020	DIABLO CANYON NUCLEAR POWER PLANT, UNITS 1 AND 2 – ISSUANCE OF AMENDMENT NOS. 237 AND 239 TO RELOCATE TECHNICAL SPECIFICATION 5.3, "UNIT STAFF QUALIFICATIONS," TO THE UPDATED FINAL SAFETY ANALYSIS REPORT (EPID L-2019-LLA-0268)
9/18/2020	DIABLO CANYON NUCLEAR POWER PLANT – TEMPORARY EXEMPTION FROM BIENNIAL EMERGENCY PREPAREDNESS EXERCISE FREQUENCY REQUIREMENTS OF 10 CFR PART 50, APPENDIX E, "EMERGENCY PLANNING AND PREPAREDNESS FOR PRODUCTION AND UTILIZATION FACILITIES," SECTIONS IV.F.2.b AND IV.F.2.c (EPID L-2020-LLE-0111 [COVID-19])
9/21/2020	Request for additional information: Diablo Canyon Unit 2 Fall 2019 Steam Generator Tube Inspection Report (EPID: L-2020-LRO-0026)

D. PSRC Documents (PSRC Minutes)

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

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

Type	Doc. No.	Title
1 WGE	SAPN 51084931	DA-24 hr telephone report to the NRC
2 WGE	SAPN 51034258	DA-Unit 1 acid storage tank leak
2 WGE	SAPN 51065105	DA-Missing SGI usb drive
2 WGE	SAPN 51071395	DA-Neg Trend for MW-12
2 WGE	SAPN 51072524	DA-Pot Adv Trend-Dirty Intake Motor Wind
2 WGE	SAPN 51075604	DA-QAAF-Incomplete Signatures
2 WGE	SAPN 51079924	DA-QAAF - SP 501 Forms not in use
2 WGE	SAPN 51079927	DA-QAAF-SGI program ownership

September
List of Documents Transmitted Electronically

2 WGE	SAPN 51085695	DA-Untimely reporting of JP Gate 1 failu
Eff. Eval	SAPN 51071817	Line of Sight to the Reactor Core Effectiveness Evaluation
9/30/2020		List of DN 5.1 and 5.2 Created 9-1-20 – 9-30-20
9/30/2020		DCPP 1 WGE and 2 WGE Notifications Completed 9/1/20 – 9/30/20
9/28/2020		DCPP CAP Station Index
8/31/2020		CAP Summary
9/28/2020		Open LTCA DA Notifs Station Significance 1 & 2 as of 9/28/2020
8/31/2020		20 Oldest Non-LTCA DA Notifications as of 8/31/2020
9/28/2020		Open RCEs As of 9/28/2020
8/31/2020		Performance Improvement Status Summary

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

Date	Doc. No.	Title
9/1/2020		Quality Digest Information You Can Use, September Edition 2020
9/15/2020		Quality Digest Information You Can Use, September Edition Second Edition 2020
9/9/2020	2020-IA-07	2020 Maintenance Services Audit
9/15/2020	2020-AS-07	Radioactive Waste Shipments
9/15/2020	2020-EL-01	Second Escalation of Untimely Resolution of Security Intrusion Detection Equipment Issues
9/21/2020	2020-AS-08	Review of Security Shift Orders (SO) from 2015-2020
9/21/2020	2020-AI-09	2020 Quality Assurance Program Audit

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
9/21/2020	SAPN 50955391	2017 Fall Holtec Users Group Trip Report
9/24/2020	SAPN 51022268	Engineering Org Benchmark
9/29/2020	SAPN 51039233	NANTeL Industry Mtg Action Items

September
List of Documents Transmitted Electronically

4/9/2020	SAPN 51071823	FAC Program - Jan 2020 CHUG Trip Report
9/10/2020	SAPN 51084193	Trend Evaluation Timeliness Benchmarking
9/16/2020	SAPN 51087571	Benchmark EPRI Rigging Group
9/17/2020	SAPN 50983506	2020 Self-Assessment - SPA
9/2/2020	SAPN 51064372	2020 DCPP Mid Cycle AFI Review
10/13/2020	SAPN 51067430	EQ: Tracking 2020 Self-Assessment
9/28/2020	SAPN 51086757	Perform a QHSA against NRC IP 71124.03

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

Date	Doc. No.	Title
1/7/2020		Generation Operating Plan 2020 – 2024, No new updates this month.
	PPIR	There is no PPIR for this month.
Station Initiative		There are no new Station Initiatives for this month.
9/14/2020		Diablo Canyon Department Performance Improvement Dashboards - September 2020

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.

September
List of Documents Transmitted Electronically

M. Significance Determination Process Calculations

Date	Doc. No.	Title
9/2020	SDP20-03 Rev. 0	Unit 2 AFW Pipe Leak

N. Miscellaneous

Date	Title
	There are no miscellaneous documents for this month

O. Functional Area Documents

Subcommittee	Date/Doc	Title
Maintenance	Week 2036	T+1 Performance Critique
	Week 2037	T+1 Performance Critique
	Week 2038	T+1 Performance Critique
	Week 2039	T+1 Performance Critique
	August T+1	T+1 Monthly Performance Critique 2032-2035

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE	
AGENDA TRANSMITTAL FORM	
MEETING DATE:	October 23, 2020
AGENDA ITEM:	XVIII
AGENDA TITLE:	Update on the Activities of the Diablo Canyon Decommissioning Engagement Panel.
CONSENT [ ] ACTION [ ] INFORMATION [X]	
Staff Summary: Dr. Lauren Brown, a Member of the Diablo Canyon Decommissioning Engagement Panel, created by PG&E in 2018, will provide an update on the Panel's recent and planned activities.	
RECOMMENDED COMMITTEE ACTION: Information item with any action as appropriate.	

DIABLO CANYON
Decommissioning Engagement Panel

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

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

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

The current member's complete profiles can be found by following this link.

Panel members

The panel is comprised of representatives from the local community who broadly reflect the diverse community stakeholder viewpoints in proximity to DCPP. A formation committee that included representatives from the local community assisted PG&E in the panel selection process. Panel members are listed below and you may also **review panel members' profiles (PDF, 422 KB)**.

- David M. Baldwin, Atascadero
- Dena Bellman, Arroyo Grande
- Lauren Brown, San Luis Obispo
- Sherri Danoff, Avila Beach
- Alex Karlin, San Luis Obispo
- Trevor Keith, Ex Officio Member and County of San Luis Obispo Director of Planning and Building
- Scott Lathrop, San Luis Obispo
- Nancy O'Malley, Avila Beach
- Linda Seeley, Los Osos
- Jim Welsch, Templeton (PG&E)
- Kara Woodruff, San Luis Obispo

Contact us

Public comment: **Comment Form**

Engagement Panel Facilitator: Chuck Anders at **canders@strategicinit.com**

General inquiries: **engagementpanel@pge.com**

Dr. Lauren Brown

Dr. Brown served in the American Peace Corps in India and obtained a Ph.D. in Organic Chemistry from the University of California, Riverside, when he returned. He co-founded JBL Scientific, a specialty biochemical company and moved to San Luis Obispo in 1973. In 1999 JBL Scientific was acquired by biotech company, Promega, and Lauren served as President of renamed Promega Biosciences until 2006, and subsequently served as President of another Promega subsidiary until 2008. In the community, Dr. Brown has served on the YMCA Board, Chamber of Commerce Board, Chamber Economic Vision Task Force in 1992, the City of San Luis Obispo Economic Stability Task Force in 1993, as well as the Targeted Industries Task Force in 1997. Dr. Brown was honored by the San Luis Obispo Chamber of Commerce as the 2014 Citizen of the Year.

Current term concludes May, 2022

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE	
AGENDA TRANSMITTAL FORM	
MEETING DATE:	October 23, 2020
AGENDA ITEMS:	XIX-A & B and XXIV - C & D
AGENDA TITLE:	Consultant & Legal Counsel Reports; Receive, Approve and Authorize Transmittal of Fact Finding Reports, and receive report by Asst. Legal Counsel.
CONSENT [ ] ACTION [X] INFORMATION [X]	

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

Fact finding reports may be submitted for consideration and comment by members and consultants since the last public meeting of the DCISC in July 2020. These reports may be received by the Committee, approved as to form and content and be authorized for transmittal to PG&E for its consideration and response. The Committee reserves the right to revise any fact-finding prior to the inclusion in an Annul Report. Fact finding reports in their final "as accepted form" become a part of the next DCISC Annual Report. Fact Finding Reports and are available for public inspection following their acceptance by the Committee at a public meeting.

RECOMMENDED COMMITTEE ACTION:

Receive reports by Consultants and Assistant Legal Counsel reports and provide direction.

Motions to accept Fact Finding Report concerning fact-findings conducted on July 21-22, August 19-20, and September 9-10, 2020.

DIABLO CANYON INDEPENDENT SAFETY COMMITTEE	
AGENDA TRANSMITTAL FORM	
MEETING DATE:	October 23, 2020
AGENDA ITEM:	XXV-A
AGENDA TITLE:	Minutes of July 1-2, 2020, Public Meeting
CONSENT [X] ACTION [ ] INFORMATION [ ]	

Staff Summary: Attached are the Minutes which have been prepared from the Committee's ninety-sixth public meeting held on July 1-2, 2020, as a Zoom webinar due to the coronavirus pandemic.

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

RECOMMENDED COMMITTEE ACTION: Accept the Minutes by motion

MINUTES
of the
DIABLO CANYON INDEPENDENT SAFETY COMMITTEE'S
JULY 1-2, 2020 PUBLIC MEETING
[For approval at the October 23, 2020 Public Meeting.]

Wednesday & Thursday
July 1-2, 2020
Conducted Online as a Zoom Webinar

In response to Governor Newsom's Executive Order N.29-20 related to the COVID-19 (coronavirus) pandemic public participation in this DCISC public meeting was by electronic means only and without a physical location for public participation in compliance with California state guidelines on social distancing. This meeting was produced by AGP Video Inc. and webcast "live" on SLO-SPAN at http://www.slo-span.org and through http://www.dcisc.org as a webinar and was subsequently broadcast on San Luis Obispo local government access television, Channel 21.

Notice of Meeting

A legal notice of the public meeting and several display advertisements were published in local newspapers and mailed to the media and those persons on the Committee's service list. The meeting agenda and the entire agenda packet for the meeting together with the informational presentations were posted on the Committee's website at www.dcisc.org prior to the meeting and the meeting agenda contained information on how to access the webinar using a computer or a telephone

Agenda

I CALL TO ORDER - ROLL CALL

The July 1, 2020, public meeting of the Diablo Canyon Independent Safety Committee (DCISC), the ninety-sixth public meeting of the Committee, was called to order by Committee Chair Dr. Peter Lam at 9:00 A.M. Dr. Lam stated he hoped the Committee might resume holding meetings in person with members of the public when the pandemic situation has improved. He briefly reviewed the professional backgrounds and appointment to the DCISC for each of the other DCISC Members, Dr. Robert J. Budnitz the appointee of the California Attorney General, and Dr. Per F. Peterson the appointee of the Governor of California, and Dr. Lam introduced himself as the appointee of the California Energy Commission and current serving DCISC Chair. Dr. Budnitz briefly reviewed Dr. Lam's professional background.

Present: Committee Member Robert J. Budnitz
Committee Member Peter Lam
Committee Member Per F. Peterson

Absent: None

II INTRODUCTIONS

Dr. Lam introduced the Committee's Technical Consultants Mr. Richard D. McWhorter Jr. and Mr. R. Ferman Wardell and DCISC Assistant Legal Counsel Robert W. Rathie. Dr. Lam then introduced Mr. Thomas R. Baldwin PG&E's Director of Generation Business Planning, and Diablo Canyon Power Plant (DCPP) Chief Nuclear Officer Support Manager Mr. Hector Garcia, who acts as the principal liaison with the DCISC. Dr. Lam observed Mr. Baldwin and Mr. Garcia play key roles on behalf of PG&E in working with the DCISC in coordinating activities, providing information and facilitating its public meetings and the frequent fact-finding visits to DCPP conducted by a single member and one technical consultant.

III PUBLIC COMMENTS AND COMMUNICATIONS

The Chair invited any members of the public present who wished to address remarks to the Committee on items not appearing on the agenda for the public meeting to do so at this time by using Zoom's "raise your hand" feature and he briefly reviewed the advice from the agenda concerning items or issues which are brought to the attention of the DCISC by the public during public meetings. There was no response to his invitation.

Mr. Rathie reported a change to the agenda for the following day's session due to the cancellation of Item XXIV C.5 "Causes and Corrective Actions for the February 2020 Unit 2 Forced Outage" due to the DCISC's receipt of recent information from DCPP. Instead the item concerning "Recent Human Performance Issues" will be presented during the following day's morning session.

IV APPROVAL OF MINUTES

This item concerned approval of the Minutes of the Committee's February 12-13, 2020, public meeting held in Avila Beach, California. A draft of the February 2020 Minutes was included in the public agenda packet for this meeting. The Members and Consultants reviewed the Minutes and provided corrections and substantive changes to certain references which will be included in the final version of the February 2020 Minutes. The Members and Technical Consultants discussed some of the follow-up actions to be taken, provided clarification concerning typographical errors and the accuracy of certain references in the Minutes and made editorial comments and changes concerning the draft of the February 2020 Minutes.

Minutes of the Committee's public meetings in their accepted form become part of its Annual Reports on Safety of Diablo Canyon Nuclear Power Plant Operations (Annual Report). On a motion by Dr. Peterson, seconded by Dr. Budnitz, the Minutes of the Committee's February 2020 public meeting were accepted subject to inclusion of the changes provided to the Committee's Assistant Legal Counsel. The February 2020 Minutes will become a part of the

Committee's 30th Annual Report.

V ACTION ITEMS

A. Update on Financial Matters and Committee Activities During 2020. The Chair called upon Assistant Legal Counsel for a report on this topic. Mr. Rathie reported unspent funds

provided for the DCISC's operations by PG&E's ratepayers for calendar year 2019 have been remitted to PG&E for credit to the ratepayers. The Committee has now remitted unspent funds for several years in succession. Two payments under the 2020 grant of operating funds have now been received. Mr. Rathie reported the PG&E bankruptcy filing has had no effect on funding provided for the operations of the Committee. He also reported that the recent approval by the California Public Utilities Commission of PG&E Advice Letter 5797-E-A has resulted in an increase in the Members' hourly compensation rate from $250 to $260 per hour. Mr. Rathie directed attention to the green sheets in the Agenda packet which Consultant Ferman Wardell prepared and which list the dates for fact findings, public meetings and key dates.

B. Discussion of Issues on Open Items List.

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

Items discussed or concerning which action was taken included the following[1]:

Item	Re:	Action Taken
CO-10	Mispositioning Errors	Next Action Contingent on 7/20 FF Review
CO-13	CAISO Load Following Policy	Next Action 3/4Q21 FF
HP-1	Human Performance/Behavior	Next Action 3Q/20 FF
EP-2	Delayed August 2020 Emergency Drill	Next Action TBD
EP-3	Emergency Preparedness-Decommissioning	Close to DEC-4
RA-5	Non Seismic PRA Program Reviews	Next Action 3/4Q20 FF
RA-6	Seismic Fragility Analysis	Next Action 3/4Q20 FF
NS-5	NSOC Meetings	Next Action 11/19/20 FF

[1] Key to some of the abbreviations used: PG&E Nuclear Safety Oversight Committee (NSOC), Probabilistic Risk Assessment (PRA), Public Meeting (PM), Quarter (Q), Fact-finding (FF), To Be Determined (TBD), Dr. Robert J. Budnitz (RJB), Dr. Per F. Peterson (PFP), and Mr. R. Ferman Wardell (RFW), Mr. Richard D. McWhorter (RDM), Mr. Robert W. Rathie (RWR).

Item	Re:	Action Taken
OM-4	Review Outage Safety Plan	Next Action 4Q20 FF and 2/21 P.M.
SEC-4	Review Cyber Security Program	Next Action 3Q/21 FF w/RJB
O-2	COVID-19 Response	Expand/Extract Topical Areas from RJB List
10/18 PM-16	Post-shutdown role for DCISC	Close Here & Move to New Item
02/20PM-2	Second Restated Charter	Close & Follow in DEC-3
		RWR to provide wording
02/20PM-7	Use of Social Media	Expand to Include Role/Issues
02/20PM-12	Emergency Siren Batteries/URI	Next Action 8/20 FF
02/20PM-13	Status of NRC Cross-cutting Issues	Hold Open
02/20PM-17	Observe Performance Review Meeting	Close

Items identified on the list and not included in the above were identified by Mr. Wardell for closure and were so approved. Mr. Wardell then called the Committee's attention to Page 11 of the Open Items List which tracks the dates on which system and component reviews were completed or are scheduled. Items identified for review were adjusted as follows:

DCPP Systems/Components Periodic Review

System or Component	Date/Action
Chemical & Volume Control System/Expanded	TBD
Nuclear & In-Core Instrumentation & Rod Control & Indication	TBD
Trending Analysis	Include w/ Performance Improvement

C. Nomination and Election of DCISC Chair and Vice-Chair for the July 1, 2020 - June 30, 2021 Term.

On a motion made by Dr. Budnitz, seconded by Dr. Peterson, the Committee unanimously reelected Dr. Lam to the position of DCISC Chair and on a motion made by Dr. Peterson, seconded by Dr. Lam, Dr. Budnitz, who abstained from vote, was elected to the position of DCISC Vice-Chair for respective terms of office from July 1, 2020 through June 30, 2021.

A short break followed.

VI COMMITTEE MEMBER REPORTS AND DISCUSSION

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

The Members confirmed public meetings of the DCISC for October 22-23, 2020 [changed from September 30 - October 1, 2020], February16-17, and June 23-24, 2021, and the Members and Consultants then scheduled a public meeting for October 19-20, 2021. Mr. Rathie observed the DCISC public meetings may continue to be held remotely using Zoom for as long as the Governor's Executive Order requiring social distancing protocols remains in place.

Fact-finding visits were confirmed and scheduled as follows:

[2020] July 21-22 PFP/RFW [w/observation of evaluation/assessment meeting on July 30]; August 19-20 PL/RDM; September 9-10 RJB/RFW; November 9-10 RJB/RDM [w/observation of NSOC exit meeting on Nov. 19]; December 8-9, 2020 PFP/RFW [w/observation of evaluation/assessment meeting on December 3]; and

[2021] January 27-28, 2021 PL/RDM; March 17-18 RJB/RFW; April 20-21 PL/RDM; May 11-12 PFP/RFW; July 14-15 PFP/RDM [w/observation of NSOC exit meeting on July 15]; August 18-19 PL/RFW; September 22-23 RJB/RDM.

The July, August and September fact-findings and the October 2020 public meeting are all expected to be conducted using remote technology due to the coronavirus pandemic. **A decision will be made at the October 2020 public meeting concerning the conduct of future fact finding and public meetings**. Mr. Rathie observed that the Committee has continued to fulfill all its previously scheduled activities during the coronavirus pandemic and there have been no cancellations of DCISC activities as a result of the pandemic.

B. Documents Provided to the Committee:

The Chair observed that a list of documents received by the DCISC since its last public meeting in February 2020 was included in the public agenda packet for this meeting and Dr. Lam remarked the Committee strives to always conduct its business in a transparent fashion. Mr. Rathie reported that correspondence sent to or from the Committee is available through the Legal Counsel's office and is made a part of each Annual Report.

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

The Chair requested Consultant McWhorter to report on the March 17-18, 2020, fact-finding with Dr. Budnitz. Due to the coronavirus pandemic and the need to maintain social distancing and to observe DCPP protocols to protect plant personnel this fact-finding was conducted remotely using WebEx. He stated the DCISC fact-finding team (FFT) appreciated PG&E's leadership and support in working through the requirements of conducting the fact-finding remotely. Mr. McWhorter reviewed the topics discussed with PG&E during the March 17-28, 2020 fact-finding as follows:

➢ Meeting with NRC Senior Resident Inspector - Mr. McWhorter reported the two NRC resident inspectors are now present on the site two days each week and they alternate days to afford them protection from COVID-19. The inspectors now have access with full cyber security protections to the DCPP computer network including major plant status parameters and to contact Control Room personnel from the resident's homes to assist them in their observations. **Dr. Peterson remarked there is much to be learned from the response to the pandemic including certain practices that are likely to continue after the pandemic concludes and this is one such aspect which is worthwhile for the DCISC to review during a future fact finding.** The NRC inspectors continue to have concerns about human performance issues at the plant and Dr. Budnitz stated the DCISC shares those concerns.

➢ Human Performance - Mr. McWhorter stated the DCISC's initial interest in this topic was broad and was based upon three station level events within a six-month period. Prior to those events DCPP had not experienced a station level event since 2014. Station level events represent significant human performance issues that meet specific criteria established by the Institute of Nuclear Power Operations (INPO). He reported numerous notifications[2] were made and reviewed by the FFT. Additional corrective actions were initiated in early 2020 and reviewed by the DCISC representatives and found to be appropriate. **Mr. McWhorter recommended based on this and prior reviews that the Committee should continue its review of human performance issues at future fact finding or public meetings.** Mr. McWhorter stated the FFT concluded that significant trends have been identified in Operations Department human performance and the effectiveness of the corrective actions taken should be evident over the next few months.

➢ Attend Notification Review Team Meeting - Mr. McWhorter reported the meeting which is held daily was conducted as a conference call to review all the notifications that come to the station each day. Notifications are initially reviewed by the work control and shift managers during each operating shift to ensure there are no immediate actions required and then the previous day's notifications are reviewed by the Notification Review Team using multi-user collaborative software for assignment of appropriate corrective actions in advance of the Notification Review Team's meeting and the results of these individual reviews are returned to and compiled by the meeting's facilitator. Mr. McWhorter stated the DCISC team found the process to be generally good and the meetings to be run effectively and efficiently.

➢ Auxiliary Saltwater System (ASW System) - Mr. McWhorter stated the purpose of the ASW System is to provide the heat sink for the plant, that is, to transfer heat from the Reactor Coolant System (RCS) both during shutdown, during operations and in accident conditions through the Component Cooling Water System (CCW System) and then ultimately the Pacific Ocean. The ASW System consists of four pumps and two trains for each unit and is backed up

[2] A notification is the document used at DCPP to enter an issue into the plant's Corrective Action Program.

by electrical power from the emergency diesel generators (EDGs). ASW System health was rated Green[3] with no major issues. He reported two issues are being followed for the ASW System including failure of a pump motor in November 2018 when the pump was replaced with a spare which had not been rebuilt according to the new procedures for rebuilding the motors Corrective actions included changes to procedures for rebuilding the pump motors and the motor which was replaced in 2018 is scheduled to be replaced in the next planned refueling outage. In September 2019 a pump failed to start due to a breaker's failure to close due to linkage degradation. Other breakers were inspected but no similar degradation was found and corrective actions are still in progress. Mr. McWhorter reported on the effect of the present trend of higher ocean water temperatures on the ASW System which has seen ocean water temperatures as high as 68.2°F., with a technical specification limiting conditions for operations of 70°F. Dr. Peterson observed this has broader implications than just the safety of the plant as it correlates with measurements showing that temperatures are increasing and this is a serious concern. Mr. McWhorter reported analysis has been done to understand what the limiting conditions due to ocean temperature rise are for the ASW System and a prompt operability assessment would be performed to take advantage of some of the margin provided in buried pipe calculations to justify continued operation. Dr. Budnitz expressed his opinion that the current licensing analysis supporting the 70°F. operating limit is conservative and there is likely extra margin that would involve a more realistic calculation. Mr. McWhorter observed after the plant is scheduled to cease generating electricity in 2025, the ASW System will still be required for spent fuel cooling until such time as an alternate system is approved or until all fuel is removed from the spent fuel pools. He reported the Decommissioning Group at DCPP continues to review issues with long term systems required after shutdown and the permits necessary for their operation. Dr. Budnitz remarked as the fuel cools in the spent fuel pools there is gradual radioactive decay and less heat is produced each year thereafter and this creates additional margin between the heat generated and the ASW System's capacity to remove it. Mr. McWhorter stated the FFT concluded the ASW System continues to be healthy with no major issues.

➢ Environmental Qualification Program - Mr. McWhorter reported the Environmental Qualification Program ensures safety-related equipment will operate when subjected to abnormal environmental conditions such as temperature, pressure, or radiation present in a post-accident scenario. The program maintains documentation in separate files regarding the individual equipment qualifications based upon the adverse environmental conditions due to the equipment's location is located and the time period during which the equipment is required to be operable. The program owner tracks all documentation and a self-assessment is performed after every second scheduled refueling outage. The FFT found the 2018 self-assessment to be satisfactory with no major issues identified. Mr. McWhorter briefly discussed an issue identified

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

in that self-assessment, which was completed just prior to an NRC inspection, when a cable routed to the pressurizer power operated relief valve solenoid was found to lack a drip loop which would allow water to drain and ensure the water could not get into the head of the solenoid. This condition resulted in DCPP receiving a non cited violation (NCV) and DCPP performed a programmatic review which found that in addition to the four power operated relief valve solenoids the condition also affected four main steam isolation valve solenoids. The condition has now been corrected except for three of the main steam isolation valve solenoids which will be addressed during the next scheduled refueling outage. An industry issue with transmitters not having been properly qualified for self-generating heat was found not to be applicable to DCPP after a review of all potentially affected transmitters.

➢ Auxiliary Feedwater System - Mr. McWhorter reported the Auxiliary Feedwater System (AFW) is used to provide feedwater to the steam generators during shutdown, start-up, low power and accident conditions when heat is being removed from the Reactor Coolant System. He reported the FFT found the AFW System to be in Green status for both units and concluded there were no significant issues with the final replacement of the chemical addition skids at various points with the AFW System now concluding, and very small check valve back-leakage experienced which Mr. McWhorter reported was within the plant's technical specifications.

➢ Unit 2 Forced Outage - this forced outage occurred during the period February 13-16, 2020, when Unit 2 was required to shut down by technical specifications due to a problem with shutdown bank B control rods deviating from demand positions during rod testing. Mr. McWhorter stated the issue did not affect the safety function of the control rods. Investigation found a failed circuit card and a root cause evaluation was initiated. Mr. McWhorter reported a more recent issue was also identified that did not require the plant to shut down and the root cause evaluation has been reopened. During the shutdown Mr. McWhorter stated the valve positioner for the feedwater regulating valves displayed major oscillation and an alarm for stator cooling water sounded which was found not to be indicative of a problem and these issues are also under review. **The FFT concluded the Unit 2 forced outage was appropriately handled but the DCISC should continue to review the event to find the cause of the rod control problems and to assess the corrective actions.**

➢ Special Protection System - Mr. McWhorter stated the Special Protection System (SPS) was the subject of recent review due to it having caused a unit trip. The FFT reviewed the logic used by the SPS to determine which unit will be tripped and found there were three types of situations: (1) if two or all three of the 500kV power lines are in a certain configuration such that Unit 1 has no path to the grid, Unit 1 is tripped; (2) if two or all three of the 500kV power lines

are in a certain configuration such that Unit 2 has no path to the grid, Unit 2 is tripped; and (3) regardless of which two 500kV lines are down and both units maintain a connection to the grid then the plant computer system determines which unit gets tripped. The FFT also reviewed a reduction in power for Unit 1 in December 2019 that was initially identified as an SPS issue but which was subsequently found to be related to an alarm received while Unit 2 was being brought up to full power after its last refueling outage. As DCPP's power output reached 1,700 combined megawatts power was backed off for Unit 1to troubleshoot the alarm. Investigation found there were no issues with the SPS but rather an incorrect wiring of the alarm circuit due to an incorrect drawing. **This issue was reviewed by the PG&E Transmission organization for any effect elsewhere in the transmission system and Dr. Budnitz observed an inquiry might be warranted into the mis-wiring extent of condition report**. Mr. Garcia confirmed the root cause evaluation was shared with Electric Operations and **Mr. Garcia promised to check and ensure that the Root Cause Evaluation for the mis-wired condition was or will be provided to the DCISC for its review if it was not already provided as part of the monthly document packages.** Mr. McWhorter stated the FFT concluded actions taken in response to the December 2019 event were appropriate.

➢ Steam Generator System - Mr. McWhorter described the FFT review as a routine examination of the primary and secondary side[4] inspections performed on the steam generators (SGs). The primary side inspection activities involve eddy current testing of each tube to look for wall thinning or defects. The secondary side inspection activities include sludge lancing to find and remove debris and foreign material. Following the primary side inspection a quantitative and qualitative operational assessment is performed for SG operability and reliability for the next three operational cycles after which the SGs will again be inspected. Following refueling outage 1R19 there were eight tubes plugged due to anti-vibration bar wear which Mr. McWhorter stated was an unexpected result as the wearing was found at the top of the Unit 1 SGs. On the secondary side, 23 pounds of sludge were removed from the Unit 1 SGs. The next SG inspection was of Unit 2 on the secondary side only when 12.5 pounds of sludge were removed. The inspection during 2R21 of all four Unit 2 SGs found no tubes that requiring plugging and 35 pounds of sludge were removed. Mr. McWhorter stated these results represent excellent performance for the DCPP SGs since the replacement of the SGs in 2008 and 2009. The inspection of Unit 1 SGs during the next refueling outage will be the last inspection for Unit 1 as three operational cycles will take Unit 1 to its planned retirement. **DCPP is performing an**

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

evaluation to consider seeking to change the inspection interval for the secondary side inspection from three to six cycles and, if granted, no further secondary side inspection for the Unit 1 SGs would be necessary. The FFT recommended the DCISC conduct a fact-finding review of the evaluation when it is completed. In response to Dr. Peterson's inquiry Mr. McWhorter stated the Committee should also review whether sludge lancing would still be performed for Unit 1 if the inspection interval were changed. Unit 2 has four more operational cycles remaining before its planned retirement and unless approval is received from the NRC to allow an inspection interval of four cycles, one more SG inspection would be required for Unit 2 prior to its retirement. DCPP is presently doing an analysis and intends to seek NRC approval to extend the inspection interval to four cycles. Mr. McWhorter stated the DCISC representatives concluded the SGs have been performing well with no major issues and testing has shown them to be in good condition.

➢ Pandemic Response Planning for the COVID-19 Coronavirus Threat - this was the first review following the coronavirus pandemic of the actions taken by DCPP which commenced on February 27, 2020. The DCISC representatives inquired so as to assess the continued operational safety of the power plant and as to the plant's ability to respond to an emergency. Mr. McWhorter reported that, in general, DCPP's response was found to be well developed and thorough with actions supporting safe operation and continued emergency response capabilities. Emergency response personnel who are now working from home continue to have their emergency response assignments as a priority over the pandemic. Activities have been reduced for the Operations Department and certain noncritical work has been deferred with all critical work continuing to be performed and all technical specifications continue to be met. **Mr. McWhorter reported that future fact-findings have considered DCPP's response to the pandemic and he stated the FFT during the March 2020 fact-finding found DCPP's response to the coronavirus pandemic to be appropriate and he recommended that the DCISC continue to monitor the plant's response as the pandemic continues.**

➢ Future Spent Fuel Management - Mr. McWhorter reported the study being conducted on spent fuel risk was not completed at the time of the March 2020 fact finding. The FFT reviewed with DCPP the requirements of the mitigating strategies for beyond design basis station blackout contained in B.5.b. of the NRC's Interim Compensatory Measures Order issued after the accident to the Fukushima Dai-Ichi Nuclear Power Plant in Japan. In order to cope with a postulated loss of cooling in the spent fuel pools a mix of cold and hot fuel assemblies is required within the pools with four cold assemblies surrounding each hot assembly such that if water inventory is lost the cold assemblies would serve to gather and dissipate radiant heat given off by the hot assemblies and this increases the time to respond to restore the water inventory in the spent fuel pools. Mr. McWhorter reported replacing a cold assembly with a "dummy" would thermally

serve to absorb heat but the dummy material would become highly activated and create more highly radioactive waste to be disposed of through storage. Dr. Peterson remarked it was his view that the result would be low level waste rather than high level waste but the logic remains the same as to generating additional waste for this particular purpose. Dr. Peterson remarked there are also issues regarding the mix of assemblies for placement in dry storage canisters and also of having a sufficient number of older assemblies available after shutdown. Mr. McWhorter stated that with reference to the B.5.b. requirement any change would require NRC approval and would need to also be integrated into the thermal limits for dry storage casks and a change to the mix of old and new fuel would likely only be justified if the overall fuel plan demonstrated that it would facilitate a more rapid unloading of all fuel from the spent fuel pools.

➢ Mode Change Sequence Following Refueling Outage 2R21 - Mr. McWhorter reported due to 2R21 being a very long duration refueling outage because of refurbishment of the main generator DCPP planned to start up the reactor to perform physics testing and then to stay in Mode 3[5] while waiting for the secondary side work to be performed. However, after entry into Mode 3 there was an need to shut down due to unexpected main steam isolation leakage which had the potential to heat up the condenser and affect work on the turbine and the main generator as well as issues concerning running electrical and reactor coolant pumps for long periods in Mode 4 and a decision was made to return to Mode 5. During that evolution human performance errors occurred. Mr. McWhorter reported while all the actions he described were appropriate and there was no direct correlation to the human performance errors those errors did result in adding complexity to the outage. Mr. McWhorter stated the FFT reviewed the probabilistic risk assessment calculations made prior to entry into Mode 4.

➢ Meet with DCPP Officer - Dr. Budnitz and Mr. McWhorter met with DCPP Site Vice President Paul Gerfen to discuss items reviewed during the fact finding.

Following Mr. McWhorter's presentation Ms. Sherry Lewis, a representative of San Luis Obispo Mothers for Peace, was recognized. In response to Ms. Lewis inquiry concerning DCPP workers who are now working from home Mr. McWhorter reported that certain DCPP organizations including Engineering, Regulatory Services, Administration and some portion of the Maintenance staff have been able to work from their homes during the pandemic and in some cases rotational work assignments have been implemented. Operations Department

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[5] For Westinghouse pressurized water reactors: Mode 1 is power operation, Mode 2 is startup, Mode 3 is hot standby, Mode 4 is hot shutdown, Mode 5 is cold shutdown, and Mode 6 is refueling.

personnel continue their regular shift work although operating crews are isolated from each other and Dr. Budnitz reviewed the shift turnover procedures which have now been implemented which are now in place to separate and prevent contact between the crews coming on shift and the crews being relieved. Critical maintenance is being conducted, while some noncritical work was deferred early in the pandemic and is now being addressed. Mr. Baldwin reported that not all DCPP workers are tested for COVID-19 but screening criteria includes checking temperatures and interviewing for recent contacts and for potential illness symptoms. Masks are required and social distancing protocols are employed whenever possible within the power plant and extra measures are being taken to ensure the cleanliness of DCPP's facilities. Mr. Baldwin reported DCPP has contingency plans in place should it experience positive COVID-19 cases but those plans have not to date been necessary.

Mr. David Weisman was recognized to address remarks to the Committee. With respect to Mr. Weisman's question as to whether DCPP seeking to change the SG inspection interval from three cycles of operation to four cycles, Mr. McWhorter replied there is an industry initiative for extending the interval from three to four operational cycles based upon inspection results which are finding fewer and fewer defects. Mr. McWhorter stated the industry initiative is expected to be approved by the NRC during 2021, following which DCPP would submit its request. Mr. McWhorter and Dr. Budnitz observed that with a generic approval the NRC follows a process that is in the public domain. Mr. Baldwin stated that prior industry initiatives of this type have been public and public comment was allowed. He remarked DCPP would have to submit documentation for its request for an interval extension for Unit 2 and those documents would be subject to public comment. Neither Mr. McWhorter nor Mr. Baldwin could comment on Mr. Weisman's inquiry as to whether the generic industry initiative would be limited to steam generator inspection interval extension or might include other matters. Mr. Weisman observed that in the past with generic industry initiatives the process for approval has been a public process and includes publication in the Federal Register. Dr. Budnitz stated he believes that would be the case with the initiative under discussion as it would necessarily include an exemption from an accepted code standard. Dr. Budnitz suggested that an answer may be available concerning the procedure for an exemption during the presentation later in the meeting on NRC regulatory matters.

Dr. Budnitz and Mr. Rathie called Mr. Weisman and the public's attention to the Committee's website where all the informational presentations for this public meeting were posted and available prior to the meeting.

Dr. Peterson having been temporarily called away from the meeting, approval of the March 2020 Fact Finding Report was deferred until after the lunch break.

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

Mr. Rathie reported on the process used to set up this public meeting which due to the coronavirus pandemic is the first such meeting to be conducted using Zoom remote meeting connectivity. He expressed his appreciation for Mr. Baldwin and Mr. Garcia's participation and cooperation in the process and in the mock meeting conducted to test the technology and its application to the Committee's public meeting format. Mr. Rathie mentioned that but for the pandemic a tour with members of the public had been planned for this public meeting and the Committee may need to review the future viability of conducting tours of the power plant with members of the public.

Mr. Rathie reported the Committee's Webmaster was forced to close her business due to a family medical situation and SunStar Media of Monterey, California was engaged to assist in posting items to the website for this meeting and to complete the posting of the 29th Annual Report to the Committee's website. He commented that SunStar has offered several ideas for improving and reorganizing the website. He reported, in addition to posting the Annual Reports on the website, the Committee continues to publish its Annual Reports in both a print version as well as on compact disk and USB media and he inquired about whether the Members wants to continue providing the report as a CD and as a USB drive as many computers now do not have CD rom drives and the report is principally accessed through the website and is provided in two bound volumes to the Governor, the Attorney General, the California Energy Commission and the California Public Utilities Commission (CPUC). He confirmed that the 30th Annual Report will be published in all the usual formats and the office of the Committee's Legal Counsel and Consultant Wardell retain copies of all the annual reports' component files. **Dr. Budnitz suggested including an inquiry as to the utility of the CD in the cover letter which accompanies each CD.** Mr. Rathie reported that to date in 2020 the Committee's website has averaged 671 unique visitors each month with the greatest number of visitors coming from the United States, the Russian Federation, Saudi Arabia, Great Britain and the Ukraine in that order.

Mr. Rathie reported at the Committee's direction during the February 2020 public meeting the proposed Second Restatement of the Committee's Charter was provided to Mr. David Zizmor in the CPUC Energy Division. The Second Restatement as proposed and approved by the Members at the February 2020 public meeting would provide for a post-shutdown role for the DCISC to continue to review nuclear fuel-related issues until all fuel was safely moved from the spent fuel pools to the Independent Spent Fuel Storage Installation (ISFSI). He reported that Mr. Zizmor was unable to provide any information on the progress of consideration of a Settlement Agreement which would provide for a post-shutdown role for the DCISC in the 2018 Nuclear Decommissioning Cost Triennial Proceeding (2018 NDCTP).

Mr. Rathie reported that the Governor's appointment of a member of the DCISC is pending and Dr. Peterson and Dr. Michael Quinn have been approved by the President of the CPUC for consideration for that position which would be for the July 1, 2020-June 30, 2023 term.

In concluding his presentation, Mr. Rathie observed that Governor Newsom's Executive Order which relaxed certain requirements of the Bagley Keene Open Meeting Act to allow state bodies to use remote technology to meet during the pandemic emphasized that transparency must remain uppermost in a body's consideration when holding a public meeting using remote technology and the Committee's Legal Counsel's office has done its best to adhere to that advice in setting up, providing notice and in conducting this public meeting.

VIII ADJOURN MORNING MEETING

The Chair adjourned the morning meeting of the DCISC at 12:30 P.M.

IX RECONVENE FOR AFTERNOON MEETING

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

X COMMITTEE MEMBER COMMENTS

There were no comments from any Members at this time.

Upon a motion made by Dr. Budnitz, seconded by Dr. Lam, the March 17-18, 2020 Fact Finding Report was accepted by the DCISC and its transmittal to PG&E was authorized. The report will become a part of the Committee's 30th Annual Report.

Dr. Peterson remarked that his audio connection to the meeting was not the best quality and the dial-in telephone number(s) given in the agenda were available to anyone who wished to connect to this meeting by telephone.

XI PUBLIC COMMENTS AND COMMUNICATIONS

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

Mr. John Geesman was recognized. Mr. Geesman reported that he had a very good connection to the meeting and could hear the discussion quite well.

XII INFORMATION ITEMS BEFORE THE COMMITTEE

The Chair requested PG&E Director of Generation Business Planning Mr. Thomas Baldwin to introduce the first of the informational presentations for this public meeting. Mr. Baldwin introduced Station Director Mr. Cary Harbor. Mr. Baldwin reported Mr. Harbor has held a Senior Reactor Operator License and has led many DCPP organizations including serving as Director in the Maintenance, Quality Verification, Quality Services, Generation Compliance, and Risk and Business Planning organizations. Mr. Harbor holds a degree in Nuclear Engineering from the University of California at Santa Barbara and a management certification from Stanford University's executive business program.

Presentation on the State of the Plant including Key Events, Highlights, Organizational Changes, and Station Activities since the DCISC's February 2020 Public Meeting.

Mr. Harbor stated he appreciated the opportunity to again make a presentation to the DCISC and reported both Unit 1 and Unit 2 continue to operate safely at 100% power with no threats or risk to generation or safety. All NRC Performance Indicators are in Green status and the DCISC will receive a separate presentation on these Performance Indicators later during this public meeting. Mr. Harbor reported the coronavirus pandemic has been a challenge for the nuclear industry as well as all other industries and he reported DCPP continues to weather the pandemic well and safety performance and reliability have improved.

Unit 2 shut down on February 13, 2020, due to rod control equipment problems. Mr. Harbor reported a logic card on the Rod Control System indicated an error during testing and the plant was conservatively shut down to troubleshoot and identify the issue. The logic card was replaced but subsequently there were further challenges to Unit 2's rod control and further troubleshooting identified a resistance termination which was corrected and the rod control was returned to operable status.

Mr. Harbor reported the Institute for Nuclear Power Operations (INPO) reaccredited all twelve DCPP training programs after a large INPO team visited DCPP to review all aspects of training.

Mr. Harbor stated Unit 1 is in the midst of preparations for refueling outage 1R22 which is expected to take place during the coronavirus pandemic and will require a good team effort. Unit 1 operations were curtailed to 50% in May 2020 to support routine tunnel and condenser

cleaning of ocean debris and this provided an opportunity to put in place actions related to protection of personnel during the pandemic. Mr. Harbor stated this was a successful curtailment and was completed without injury or human performance events and in accordance with the duration established by the DCPP Business Plan.

Mr. Harbor reviewed two graphs showing the daily load profiles for both units during 2020 and for the last twelve months. He observed both units operated reliably and have performed very well over those periods and he remarked that during the Unit 2 refueling outage the generator stator was replaced and the generator performance has been exemplary since the replacement.

Mr. Harbor commented on station organizational changes and reported the previous Quality Verification Director, Mr. Ken Cortese, has now retired and was replaced in that position by Mr. Ken Johnson who has been in the DCPP organization for 25 years.

Mr. Harbor reported the PG&E bankruptcy has had no impact on DCPP's safe operations and he reported all major facets of the bankruptcy matter have been resolved or are very close to resolution with the bankruptcy court and with the other parties and the reorganization plan has been accepted by the bankruptcy court and PG&E expects to soon fully exit from bankruptcy. Mr. Harbor stated PG&E takes full accountability for the recent wildfires and is looking to improve its operations and move forward.

Mr. Harbor reviewed upcoming station activities including the NRC's Problem Identification and Resolution inspection scheduled in August 2020 and the twenty-second Unit 1 Refueling Outage (1R22) commencing in October 2020.

In response to Dr. Lam's request Mr. Harbor stated that up to the present time, when PG&E is anticipating receipt of confirmation from the bankruptcy court, there has been no impact to DCPP operations and support for DCPP from senior leadership has been unchanged.

Mr. Baldwin introduced Emergency Planning Manager Michael Ginn and asked Mr. Ginn to make the next informational presentation to the DCISC. Mr. Baldwin stated Mr. Ginn has more than 35 years of experience in the energy industry and in that time Mr. Ginn has held leadership roles in public safety and the DCPP Emergency Response organization.

Diablo Canyon Power Plant's Response to the COVID-19 Pandemic Including Impacts on Operations, Maintenance and Emergency Planning, Training, Long-term Projects, and Staffing.

Mr. Ginn reported station updates on COVID-19 response actions and prevention measures taken were provided to DCISC during fact-finding meetings conducted on March 18, April 16, and May 13, 2020. He remarked his presentation would provide an overview of the actions taken throughout the response. Mr. Ginn stated the current status relative to COVID-19 at DCPP remains in the monitoring stage for essential personnel required for continued safe and reliable operations at the station. An Emergent Issue (EI) Team, a multi-organizational team, was established as of February 27, 2020, and is managed by Mr. Ginn to address business continuity challenges as a result of the public health emergency and to date more than 100 site-specific actions have been implemented.

Mr. Ginn described and discussed some of the categories and the key actions taken in each category as follows.

Operations Control Room:

- Limited access to only critically required personnel;
- Shift briefs and turnovers performed remotely;
- Control Room work areas are sanitized each shift and during turnovers;
- Employment of additional sanitation crews with sole purpose of cleaning high exposure areas; and
- Additional hand sanitizers added at entry points for required use.

In response to Dr. Peterson's query as to how shift changes in the Control Room are conducted remotely and concerning some of the actions described by Mr. Ginn, Mr. Ginn reported the daily plan of the day meetings held each morning and evening are conducted by telephone and whenever a face to face pre-job briefing is required face coverings and social distancing protocols are observed. The operating crew going off a shift sanitize and cleanse the Control Room and this sanitation and cleansing is again performed by the crew coming on the next operating shift. Operating crews also keep logs for every shift to ensure documentation is provided in support of the shift turnover. Mr. Ginn reported DCPP is using WebEx remote meeting technology extensively and personnel are also working from home. In response to Dr. Budnitz' question Mr. Ginn stated there have been no specific challenges in any department and absenteeism is closely monitored to ensure the plant retains the ability to adequately staff contingency situations and new standards have been established for the use of face coverings, while coaching is done to communicate and reinforce expectations. In response to Dr. Lam's inquiry Mr. Ginn confirmed the Information Technology organization prefers the use of WebEx

and Microsoft Teams to the use of Zoom for remote meetings.

Employee Protection Measures:

- Implemented rigorous health screening including, temperature and symptom checks before arriving at work, and following necessary quarantine guidelines;
- Face coverings and physical distancing requirements established for all departments with coaching leadership in the field enforcing the new standards;
- Suspended all non-essential site access, business travel and offsite meetings;
- Closed fitness facilities and cafeteria dining with no communal food; and
- Implemented additional sanitizing routines, with staged supplies including for use of company vehicles;

Critical Qualification Monitoring:

- Implemented critical qualification monitoring for all license required personnel;
- Established department specific monitoring and action plans for Operations, Security, Maintenance, Engineering, Chemistry & Radiation Protection, and DCPP Fire Protection organizations; and
- Established plans to deepen pool of available critical qualifications if needed with action triggers for absenteeism including, if necessary, reactivation of licenses in order to increase availability of licensed personnel.

Supply Chain & Critical Supplies:

- Implemented daily review of critical supplies and built margins to support eight weeks of isolated operations;
- Established four weeks of onsite food supply and procured additional contingency supplies for station isolation planning;
- Engaged vendors and contractors on potential for sequestered onsite support; and

- Donated ~1 million N95 and surgical masks to California Healthcare professionals.

In response to Dr. Lam's inquiry Mr. Ginn cited chemicals, supplies needed for sustained operations and personal protective equipment as critical supply items. In response to Dr. Budnitz' inquiry Mr. Ginn stated there have been no budget concerns regarding the procurement of these critical supplies, however, the federal government at one point placed a hold on personal protective equipment but this was resolved on the basis that nuclear facilities are critical infrastructure.

Remote Work Strategy for Approximately 500 employees working from home or remotely:

- Implemented remote work strategy for all non-essential personnel;
- Information Technology (IT) key part of EI Team;
- Established self-service depot for IT equipment and employee resources; and
- Home office ergonomic assessments being tracked and implemented to support all remote workers.

In response to Dr. Budnitz' query Mr. Ginn stated that essential and nonessential employees are monitored for the contacts they may have to determine if they could be in any way impacted by COVID-19 including through travel, family or other contacts and quarantine would be required for anyone so impacted. In response to Dr. Lam's inquiry about an employee with a spouse in the medical field Mr. Ginn stated that self-screening questions are utilized and staffing levels have not been impacted.

Industry Interface & Outreach:

- Conducting weekly NRC Senior Resident Inspector briefings on station COVID-19 response;
- Participating in weekly Nuclear Energy Institute (NEI) COVID-19 industry coordination calls and benchmarking;
- Maintaining daily communications and interface with San Luis Obispo County Public Health and Emergency Services; and
- Conducting bi-weekly coordination calls with Federal Emergency Management

Agency(FEMA) Region IX, NRC Region IV, and the State of California Emergency Services. Outreach has also been made to the San Luis Obispo County Office of Emergency Services.

Fall Outage Preparation & Planning:

- Outage COVID-19 Planning Team established;
- Industry benchmarking and lessons learned reviewed from stations with Spring outages;
- In-processing contingency plans established; and
- Employee and contractor personnel communications and updates being developed on outage specific protective measures for site access, employee screening, social distancing, and other logistics.

Lessons Learned & Critiques:

- Emergent Issue Team critiques are currently in progress and benchmarking is taking place with others;
- Critiques are focused on COVID-19 policies, standards and response areas including alignment with PG&E corporate guidance and industry best practices; and
- Goals established to ensure lessons learned are captured in the corrective action program and the DCPP pandemic response policy and guidance are updated in a timely manner. The Daily Brief newsletter goes to every employee and focuses on safety, alignment and the status of the plant.

In response to Consultant Wardell's inquiry Mr. Ginn reported an early focus was placed on the Emergency Response Organization (ERO) to ensure personnel understand that their roles are essential. The ERO conducted drills through March 12, 2020 and opportunities remain to maintain proficiency of emergency responders using tabletop drills where social distancing can be employed and ERO personnel are briefed remotely. The ERO continues to benchmark with its peers in the industry. The next full scope ERO drill is scheduled for December 2, 2020, and DCPP is working with San Luis Obispo County, FEMA and the NRC to reschedule the August 2020 exercise. In response to Dr. Budnitz' question as to any compromises or a decrease in

effectiveness due to lack of personal interaction including when personnel changes are made which involve groups Mr. Ginn stated that for initial qualifications, verifications and walkthroughs these continue to be conducted in a face to face setting. Continued training is more susceptible to being conducted remotely but small group training for the ERO where social distancing is possible is sometimes necessary to ensure continued proficiency. He reported there is still a process for adding new employees or newly qualified individuals to the watch bills. In response to Dr. Budnitz' inquiry as to how one monitors effectiveness of these measures Mr. Ginn stated there is an abundance of such metrics including safety performance and the ability to monitor trends in performance and to take swift action upon any indication of a decline in performance.

Ms. Linda Seeley was recognized following Mr. Ginn's presentation. Ms. Seeley stated it was her impression the contract workers brought in for work at DCPP during refueling outages were risk takers by nature and she believed that might make them less interested in maintaining social distancing and following other protocols and she questioned how DCPP will know whether its contract personnel are conforming to COVID-19 safety protocols. Mr. Ginn replied the Outage Pandemic Team has implemented measures such as separation of employee entrances and pre testing of personnel and continues to reinforce social distancing requirements and he reported refueling outages conducted by other nuclear power plants have been benchmarked and were found to have successfully implemented COVID-19 safety protocols. Mr. Ginn stated major outage window work activities are coordinated through the Outage Coordination Center senior leadership team that monitors site standards for all employees and supplemental personnel and he remarked all workers are nuclear professionals and are expected to adhere to health protection measures. Testing of personnel is being evaluated as part of the planning for outage 1R22. Mr. Ginn, in response to Ms. Seeley, clarified that the preference is for workers to maintain six feet of distance whenever possible and to use face coverings at all times when unable to maintain that distance.

At the Chair's invitation Mr. Baldwin introduced the DCPP Director of Risk and Compliance Mr. Russ Prentice to make the next presentation. Mr. Baldwin reported Mr. Prentice was licensed as a Senior Reactor Operator and has been at DCPP for more than ten years in positions as a Shift Manager in the Operations Department. In his present assignment Mr. Prentice oversees the generation, regulatory and risk programs including for DCPP.

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

Mr. Prentice stated the goal of his presentation was to provide a perspective on DCPP as seen from a regulatory standpoint. Mr. Prentice stated the plant has been operating safely and effectively. He remarked his presentation would cover approximately four months of NRC inspection activity involving ~1,800 hours of inspection time. During this period DCPP met all Green performance expectations for each of the NRC Performance Indicators. One violation of very low safety significance was issued by the NRC since the last DCISC meeting in February 2020.

Mr. Prentice reviewed and briefly discussed some of the 16 Performance Indicators reviewed for both DCPP units and used to collect data by the NRC and concerning which data is collected daily and he described each as being currently within Green[6] status, with margin remaining, 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.

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[6] The safety significance characterizations used for the Performance Indicators as either Green (very low), White (low to moderate) Yellow (substantial) or Red (high). A Green non cited violations (NCV) indicates very low safety significance, with no impact to public health and safety.

- ERO Drill Participation.
- Alert & Notification System.
- Occupational Exposure Control Effectiveness.
- Radiological Effluent Occurrence.

Mr. Prentice reported that since the last meeting of the DCISC in February 2020, Mr. Hossein Hamzehee the previous Director of Risk and Compliance for DCPP has moved on to the STARS (Strategic Teaming and Resource Sharing) joint utility organization. Mr. Baldwin subsequently reported Ms. Hamzehee remains a PG&E employee but is serving as the functional area manager for the STARS group. Mr. Prentice reported on the one non cited violation (NCV) issued by the NRC for the period February 2020 through June 2020 as follows:

- Non Cited Violation (Green) - both Unit 2 Containment spray pumps rendered inoperable in Mode 4 during the Unit 2 refueling outage. (Cross-cutting aspect H/5 Work Management.)

Mr. Prentice stated no licensee event reports have been issued since the last public meeting of the DCISC and he reviewed inspection activities since the last meeting of the DCISC in February 2020 as follows:

- Open Phase Condition Industry Initiative Inspection Report (2020-011, 4/08/2020);
- 1st Quarter 2020 Integrated Inspection Report (2020-01, 4/16/2020).

Mr. Prentice reported the Intake Structure reclassification License Amendment Request (LAR) was approved by the NRC in March 2020 under the 10 CFR 50.54 process and was fully implemented on June 5, 2020. This LAR reclassified the Intake Structure from a protected area to an owner controlled area and thereby allowed the plant to further enhance its security focus upon vital areas.

In response to Consultant Wardell's query as to the public process involved in the relaxation of the steam generator inspection interval to go from three operational cycles to four cycles Mr. Prentice stated he expects this change will need to be submitted as an LAR and public comment would be a part of the process. **In response to Consultant McWhorter's request Mr. Prentice and Mr. Garcia stated that for future presentations on DCPP regulatory performance a matrix will be presented that tracks the present status of identified cross-cutting aspects including the numbers that are open or approaching the margin which**

would trigger additional NRC inspection activity. Mr. Prentice, in response to Consultant McWhorter's request, also agreed to provide for future presentations on regulatory performance a list of potential future LARs. In response to Consultant Wardell Mr. Prentice confirmed that the final correspondence on NRC Generic Safety Issue 191 concerning the Containment sump has now been closed. In response to Dr. Budnitz' inquiry concerning NRC activities with regard to the coronavirus pandemic Mr. Prentice reported regular communication is maintained with the NRC resident inspectors through meetings and with communication to the NRC Region IV office and the NRC resident inspectors now have full remote access to DCPP Corrective Action Program data as well as to the logs and other data and the NRC resident inspectors continue to maintain an onsite presence two days each week with precautions taken to minimize exposure between the two resident inspectors. DCPP provides frequent reports to the NRC concerning its COVID-19 precautions.

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

The Chair requested Consultant Wardell to report on the April 15-16, 2020, fact-finding with Dr. Lam. Due to the coronavirus pandemic and the need to maintain social distancing, this fact-finding was conducted remotely using WebEx. He reviewed the topics discussed with PG&E during the April 15-16, 2020 fact-finding as follows:

➢ Meeting with NRC Senior Resident Inspector - The DCISC fact-finding team (FFT) met with NRC Senior Resident Inspector Mr. Christopher Newport. Mr. Wardell reported Mr. Newport will have a new assignment from the NRC in September or October of 2020 as part of a regular rotation of resident inspectors. Resident Inspector Mr. John Reynoso has also been reassigned as of June 2020. Mr. Prentice confirmed that a Senior Resident and a Resident Inspector have been named to replace Messrs. Newport and Reynoso. Mr. Wardell reported the FFT discussed with Mr. Newport the protocols described during Mr. Prentice's presentation to address the coronavirus pandemic and the dangers posed by COVID-19 and the deferral of some noncritical maintenance. DCPP is doing selective testing of its personnel and to date there have been no positive tests. The DCISC representatives also discussed the Unit 2 forced outage in February 2020 and the UCLA Spent Fuel Risk Study with the NRC Senior Resident as well as the LAR concerning the change in classification for the Intake Structure.

➢ Unit-2 Forced Outage - Mr. Wardell referred to Mr. McWhorter's report earlier at this public meeting and he confirmed that a Westinghouse circuit logic card was not functioning

properly and was replaced. Other cards were tested and the results were pending at the time of the fact-finding. Visual inspections and tests will be performed during the next Unit 2 refueling outage. Mr. Wardell reported when Unit 2 was returned to power operation that all rod control systems were working correctly and the FFT found DCPP's actions to be appropriate.

➢ Quality Performance Assessment Report (QPAR) - Mr. Wardell described the QPAR, which is issued three times each year, as determining DCPP's demonstrated overall White performance which he described as acceptable but not desirable for the long-term. The Operations Department performance was determined by the QPAR to be in stable Yellow status with one issue being control status in alignment of components. All other departments were classified as being in White or Green status. The DCISC representatives concluded the QPAR was comprehensive and factual.

➢ Quality Verification Audits and Nuclear Industry Evaluation Program - Mr. Wardell described the scheduled audits for 2020 as being typical and the audits reviewed by the FFT were well done. Items from a 2019 audit of cyber issues have now been satisfactorily resolved and closed. The Nuclear Industry Evaluation Program (NIEP) looks at the Quality Assurance Program from an outsider's viewpoint and found the development, documentation and implementation of the Quality Assurance organization's function to be effective with three deficiencies from the previous evaluation having been satisfactorily resolved. The 2020 NIEP evaluation identified seven new deficiencies which Mr. Wardell stated were not major and concerned qualifications in the plant's welding program which represent administrative problems and no welds have been found to be defective or questionable. The NIEP evaluation for the Quality Assurance Program also identified the Director position as a program strength.

➢ Final Spent Fuel Risk Analysis - the FFT reviewed the spent fuel risk analysis performed by the B. John Garrick Institute for the Risk Sciences at UCLA under contract with PG&E which compared the risks of four spent fuel storage options for transfer of spent nuclear fuel from the spent fuel pools to the Independent Spent Fuel Storage Installation. Mr. Wardell reported the smallest risk was determined to be associated with early movement from the spent fuel pools following Unit 1's shutdown and prior to Unit 2 shutting down. He reported the Committee will receive a presentation on this topic later during this public meeting.

➢ Component Cooling Water (CCW) System - Mr. Wardell reported the FFT selected the CCW System as the topic for a periodic system review as part of a regular practice of system

review and not because of any perceived issues with the system. He stated the CCW System is a safety-related system which removes heat during normal operations and in accident situations by transferring heat to the Auxiliary Saltwater System and to the Pacific Ocean, which serves as the plant's ultimate heat sink. The system engineer provided information, drawings, diagrams and criteria for the CCW System and the FFT found the system to be in Green health and operating as designed.

➢ DCISC Member Meeting with PG&E Chief Nuclear Officer - Dr. Lam met with Senior Vice President and Chief Nuclear Officer Mr. James Welsch to discuss the COVID-19 management and protective activities at the site and the parallel priorities of protecting plant personnel and continuing safe operations. Dr. Lam described DCPP's efforts in these aspects as being firmly implemented yet flexible with most of the anticipated contingencies having been actively considered.

➢ Online Maintenance Update - Mr. Wardell reported that while a great deal of maintenance is accomplished during refueling outages, online maintenance performed while the plant is operating saves outage time and improves equipment reliability. He reported online maintenance activities are selected and implemented based on a risk assessment and only those maintenance activities are performed that are required to maintain reliability and that can be undertaken with the number of components taken out of service at any one time minimized and a prior risk analysis performed. The FFT concluded the procedures were satisfactory and the risk-based decision making was a good practice.

➢ Integrated Risk Assessment Update - Consultant Wardell reported the Integrated Risk Assessment process is a systematic approach for identifying and addressing risk and is applicable to outage and non outage work at the station. The assessment is performed either through analysis or through the use of probabilistic risk assessment tools or pre-job briefings. Mr. Wardell described it as a good program which keeps the risk of various activities and evolutions low and under control.

➢ Operations Department Update - Mr. Wardell reported the Operations Department, as he reported earlier, is in Yellow status which means its performance is not meeting expectations due to status control or component mispositioning events. A presentation will be made later during this public meeting by the Operations Director. **Mr. Wardell reported an action plan to return Operations to Green status has been implemented and he stated this plan appears promising and the DCISC should continue to monitor this issue.**

➢ Observe Licensed Operator Training - Mr. Wardell reported the WebEx presentation did not allow the FFT to view the video of the training which was for periodic training of licensed operators and concerned the natural circulation of the Reactor Coolant System (RCS) when the

RCS pumps were not in operation which he described as an important function whereby water is circulated to remove heat from the reactor core and transfer it to the steam generators. Mr. Wardell reported during normal shutdown, and some off-normal conditions, the RCS pumps are either shut off or they trip off but water flow is still required for cooling. He reported the geometry of the RCS at various elevations is very conducive to natural circulation and the purpose of the training was to re familiarize operators with the phenomena and to ensure they understood the conditions and procedures necessary for achieving natural circulation. Mr. Wardell stated the FFT found the instructor to be well prepared with active participation from the operators but the inability to view the video hampered the FFT's review.

➢ DCPP Coronavirus Update - Consultant Wardell reported the DCISC representatives received an update on the coronavirus precautions taken by DCPP and found them to be appropriate with no adverse effect on nuclear safety.

Dr. Lam reported that Drs. Garrick and Wakefield will be making a presentation on the Spent Fuel Risk Study and Dr. Budnitz will also be providing his personal evaluation of that study later in this public meeting.

Following Mr. Wardell's report Ms. Linda Seeley was recognized. Ms. Seeley commented on the color rankings for the various DCPP organizations in the QPAR and inquired whether there was a concern on the part of the DCISC with the White and Yellow conditions identified. She also inquired as to the other issues identified in the NIEP evaluation. Mr. Wardell replied the deficiencies identified in the NIEP evaluation all pertained to qualifications in the welding program which addressed administrative or technical issues with the qualifications of the welders and although the issue was significant there were no issues concerning any welds as a result of the NIEP's findings. Drs. Lam and Budnitz remarked the consequences of these issues were not major but Ms. Seeley's concern was well placed and the DCISC's concern is based upon the elimination of the issue so it does not become an on-going concern. Mr. Wardell reported the QPAR is an intense and intrusive look into issues and the quality function of DCPP's organizations and is intended to provide a tough, comprehensive review. He commented White is acceptable in the short-term but not for the long-term and an action plan is put in place to achieve Green status. **A Yellow rating for Operations indicates unacceptable performance and more stringent actions are required and more follow-up is called for and the Fact Finding Report makes this recommendation to the Committee to follow this issue at every succeeding fact-fining visit until a resolution is achieved and the matter is on the agenda for this and future public meetings.**

Upon a motion made by Dr. Budnitz, seconded by Dr. Peterson, the April 15-16, 2020 Fact Finding Report was accepted by the DCISC and its transmittal to PG&E was authorized. The report will become a part of the Committee's 30th Annual Report.

XIV ADJOURN AFTERNOON MEETING

The Chair observed the evening meeting of the Committee would be convened at 5:30 P.M. and he adjourned the afternoon meeting of the Committee at 3:30 P.M.

XV RECONVENE FOR EVENING MEETING

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

XVI COMMITTEE MEMBER COMMENTS

There were no comments by Members at this time.

XVII PUBLIC COMMENTS AND COMMUNICATIONS

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

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

Dr Lam asked Mr. Baldwin to introduce the next presentation. Mr. Baldwin stated the next presentation would be made by Dr. B. John Garrick, an experienced and distinguished member of the risk assessment community and a recognized authority on the application of risk science to complex systems both natural and man-made. Dr. Garrick is the founder of the B. John Garrick Institute for Risk Sciences at the University of California Los Angeles and he was a founder of P.G. Incorporated. Dr. Garrick served under administrations of Presidents Bush and Obama as an advisor on nuclear waste issues and has served as Chairman of the NRC's Advisory Committee on Nuclear Waste. Mr. Baldwin stated Dr. Donald J. Wakefield is also present and would address the Committee. Dr. Wakefield has more than 40 years' experience in all areas of nuclear risk analysis and he served for twelve years as the Chairman of the Low Power and Shutdown Risk Probabilistic Risk Assessment Risk Writing Group.

B. Informational Presentations Requested by the Committee of The B. John Garrick Institute for Risk Sciences - UCLA Engineering, and of PG&E.

Spent Fuel Risk Study: Presentation on the Background and Results of the Study by the B. John Garrick Institute; Presentation by DCISC Member Dr. Robert J. Budnitz on Dr. Budnitz' Evaluation of the Spent Fuel Risk Study, and a Presentation by PG&E on Future-oriented Perspectives of the Risk Study and Results, and Comments on Plans for Procurement of New Spent Fuel Dry Storage Canisters.

Dr. Garrick provided an overview of the presentation and stated the primary goal of the Spent Fuel Risk Study (Study) was to compare the risks, that is, the probabilities and consequences of four different spent nuclear fuel (SNF) off-load scenarios from the plant's spent fuel pools (SFPs) to the Independent Spent Fuel Storage Installation (ISFSI). The Study was also undertaken to gain insight into the overall risk to the off-site public. Assessing the spacing-timed dynamics of different handling operations, different source terms, different locations, and types of equipment also represented a major challenge in meeting the rigorous requirements normally associated with a probabilistic risk assessment (PRA). Dr. Garrick stated the focus was on severe events, that is, events that might result in off-site consequences including beyond design basis events and the effort was assisted by using surrogates for consequences, thereby reducing the scope to activity that bounds the risk of the total off-load scenario and avoiding duplicating analyses that have already been performed by the NRC and the Electric Power Research Institute (EPRI). Dr. Garrick stated cesium was used as the consequence surrogate in the Study and as the process steps for all off-load scenarios were the same they were only analyzed once and it was concluded that spent fuel handling activities were bounded by the off-load scenario risks. All initiating events were evaluated and all but two were screened out, both by the frequency and the consequence of the events. The two initiating events analyzed in the Study were a dropped cask in the spent fuel pool and a very severe, beyond design basis, earthquake.

Dr. Garrick reported the Study concluded the risks of serious off-site consequences from a severe accident in any of the four off-load scenarios are very low when compared to the NRC's Quantitative Health Objective (QHO). He stated there are differences in risk among the four scenarios but the differences are not great considering the uncertainties involved. He further commented there is considerable evidence that the issue of the number of equivalent cores in the spent fuel pools that may be involved in an extremely severe accident is in fact much less in the cooled capacity. Dr. Garrick then asked Dr. Wakefield to continue with the presentation.

Dr. Wakefield reported the complete Study is approximately 160 pages and would be summarized here, including the project task, its scope, some highlights of the approach and some insights from the analyses.

Dr. Wakefield reported the project task was broken into three parts: (1) development of a PRA methodology for nuclear power plant on-site spent fuel handling and storage activities for four fuel off-load scenarios; (2) demonstration of the PRA methodology by assessing the risks to public health while comparing the results to the NRC's safety goals and QHO, two public health risk measures were compared one being the probability per year of prompt fatalities and the second being the probability per year of latent cancer fatalities; and (3) comparing the risks of four proposed off-load scenarios using a surrogate risk metric which Dr. Wakefield stated

comprised the major part of the project's analysis efforts. He reported the Study does not address the risk of transporting the fuel assemblies off the site or the cost of implementing any of the four proposed off-load scenarios nor did the study assess off-site land contamination except as it impacted the two public health risk measures.

Dr. Wakefield displayed a photograph of DCPP and pointed out the location of the SFPs, the on-site fuel handling facilities and the ISFSI and he described process of how SNF is moved from wet storage in the two SFPs to the ISFSI.

Dr. Wakefield then described the four offload scenarios as follows:

➢ Transfer all SNF after reactor shutdown and complete in seven years with the SFPs emptied in August 2032. Transfer to dry storage completed sequentially with one or several campaigns. Delaying the time before the start of the final campaign reduces occupational exposures (identified as Scenario 1).

➢ Transfer some SNF before and remainder after reactor shutdown and complete seven years after reactor shutdown with the SFPs emptied in August 2032. This scenario allows for reduced fuel assembly inventory prior to permanent reactor shutdown while retaining enough cold spent fuel assemblies (SFAs) to complete the final campaign as quickly as possible (identified as Scenario 2).

➢ Transfer some SNF before and remainder after reactor shutdown and complete five years after reactor shutdown. The SFPs would be emptied in August 2030. This scenario allows for reduced fuel assembly inventory prior to reactor shutdown. This scenario results in the earliest date to fully empty the SFPs while retaining enough cold SFAs to facilitate transfer campaign for last fuel cycle (identified as Scenario 3).

➢ Transfer some SNF before and remainder after reactor shutdown at the earliest times considering multipurpose cannister (MPC) heat generation limits and Unit 1 outages. The SFPs are emptied in January 2034. This scenario delays the time to empty due to heat load management strategy and provides the largest reduction in SFP inventory prior to permanent reactor shutdown. (identified as Scenario 4).

Dr. Wakefield displayed and described a graph plotting the time-dependent number of fuel assemblies in the Unit 2 SFP for the calendar years for the four offload scenarios described above.

Dr. Wakefield stated the goal of quantification of the comparative risks to public health of four off-load scenarios for transferring the SNF from the SFPs to the DCPP ISFSI for dry storage and reported a risk framework provides the structure to answer three questions: (1) what can go wrong (accident sequences); (2) how likely is it (probability of frequency); and (3) what are the consequences (accident sequence end states). He stated answers are obtained to these

questions through the process of developing a list of accident sequences, evaluating their frequencies of occurrence while accounting for the uncertainties involved, and assigning consequences to each accident sequence. To compare the off-load scenarios use was made of an intermediate metric consisting of the frequency of fuel damage at each location. Dr. Wakefield stated this metric was used to screen out risk insignificant accident sequences. Some accident sequences were only considered qualitatively during this screening process including fuel handling activities and time spent in dry storage in the ISFSI, as the initial assessment was that these sequences present relatively low risk significance. This left the risk from storage of SNF in the SFP as dominating the public health risk.

To compare off-load scenarios a specialized risk metric was defined to compare the probability of an SFP severe accident weighted by the amount of cesium that may be released due to fuel overheating and summed over all times that SNF is in the SFP. Dr. Wakefield remarked the effect of time-weighting of a cesium release can be thought of as an assessment of the average consequence. This metric accounts for the consequences based on the time-dependent amount of fuel in the SFP.

Dr. Wakefield described additional aspects of the Study's approach as including extensive reliance on typical pressurized water reactor (PWR) studies of spent fuel risks, especially those prepared by NRC and EPRI, and the use of DCPP specific procedures, designs, and safety analyses information where applicable. Other key insights came from the studies of the risks from reactor operation at DCPP especially those focused on the seismic hazard.

Dr. Wakefield then described some areas of emphasis of the study's approach:

- Accountability of time-dependent SNF amounts stored and the effects on amount of radionuclides released in a severe accident.
- Screening of low-risk accidents, and quantifying the risk significant sequences associated with the SFPs.
- Comparison of severe accident risks with NRC's QHO.
- Assessment of comparative risks between off-load scenarios while neglecting risks which are the same in each offload scenario.
- Consideration of beyond design basis events, especially seismic events, that may lead to large offsite releases capable of impacting public health. Actual public health dose calculations were not computed; the amount of cesium released is used as a surrogate for the consequences.

Dr. Wakefield reported the uncovering of water over the SNF stored in a SFP can result in the fuel overheating and the release of its radioactive fission products. Two general categories of fuel uncovery are: (1) accidents resulting in a loss of active spent fuel pool cooling, or (2) a loss of coolant. The former would also include a loss of coolant due to boiling. It was necessary to hypothesize threats beyond those considered in the design basis for licensing the SFPs for there to be noticeable differences in risks between the different off-load scenarios.

Dr. Wakefield stated public health risk acceptance was based upon the NRC's nuclear safety goals' QHO. The DCPP SNF intermediate risk results are consistent with NRC's SNF risk studies. A beyond design basis seismic event for DCPP having the potential to uncover fuel in the SFPs and enable a large cesium release was assessed to have a recurrence interval of about once every 57,000 years. The public health risks each year of DCPP SFP operation were found to be well below the NRC safety goal's QHO.

Dr. Wakefield described the third part of the project's task as comparing the risk between the four off-load scenarios using the specialized risk metric. The rankings from lowest to highest risk were:

Scenario 4 - pre-Shutdown Earliest Offload (.036).

Scenario 3 -pre-Shutdown 5-Year Offload (.056).

Scenario 2 - pre-Shutdown 7-Year Offload (.065).

Scenario 1 -post Shutdown 7-Year Offload (.067).

Dr. Garrick sated it was important to understand the reasons the Study included beyond design basis events was not only to keep focused on events which might result in consequences off the plant site but also because in the design basis domain the differences would not be well manifested.

In response to Dr. Peterson's question as to how important were the differences relative to more frequent events that are within the design basis, Dr. Garrick replied the Study was intended to provide insight into off-site health effects and although there are many events that could occur within the design basis that have some sort of consequence, those consequences may be only a schedule delay or damage to equipment, etc., with no threat to off-site health. Dr. Wakefield observed that although beyond design basis events were a focus of the Study the Study also reviewed less than design basis seismic risk including 16 different seismic acceleration intervals less than the design basis as well as some that were above the design basis.

Dr. Wakefield commented that ranking the off-load scenarios according to risk while providing a range of possibilities of different assumptions is only one input in a decision making process that will be used to determine how DCPP will proceed in the next several years relative to SNF due to other considerations such as plant operational needs which will evolve over that time period.

Dr. Wakefield stated the study concluded that the public health risk of each of the off-load scenarios is small and well within the QHO of the NRC's safety goals. There is limited variation in the risk metrics comparing the four off-load scenarios with the lowest off-load scenario risk being 46% lower than the highest. The earliest offload scenario (Scenario 4) provides the largest reduction in risk but it is not substantially lower than the others. The risk contribution from dry storage (which contains many more fuel assemblies than the SFPs) is a small fraction of that from the SFP in terms of frequency of events that could lead to fuel damage, though risks at both locations are small. Seismic capacity of the SFPs is robust, even for large seismic events.

In response to Dr. Lam's inquiry Dr. Garrick confirmed the study's conclusion that dry storage for SNF is safer than wet storage as it is decay dependent and dry storage assumes the cask cooling is adequate and dry storage does not require the active cooling absolutely required to prevent SFP overheating and therefore the greater risk is associated with the SFPs and this is consistent with the NRC's conclusion.

In response to Dr. Peterson's inquiry, which Dr. Peterson stated he understood was a classic questions within the PRA context as to how one characterizes or compares risks that are characterized as important in the beyond design basis situation where all the number are small and there are other risks such as the economics of decommissioning as well as the economic effects of the current pandemic, Dr. Garrick replied context is important and in his view that relative to the risks identified in the Study while they would not be within the 100 top risks the State of California faces there is some uncertainty associated with what could happen with respect to the threshold at which auto-ignition could take place although the boundaries of the ranges above and below its occurrence are known. Dr. Garrick reported the focus of the Study was to explicitly focus on information that will enhance PG&E's decision making process with respect to the off-loading strategy that best serves the issue of public safety.

Dr. Peterson observed the risks associated with SNF in the SFPs changes after approximately six to eighteen months as the heat generation from the off-loaded fuel drops sufficiently such that it cannot credibly reach temperatures that would cause oxidation of the fuel's zirconium cladding and accordingly the risks associated with loss of coolant in the SFPs are changed. Dr. Peterson stated he was not entirely sure there is a substantive difference in the risk associated with SFP off-loading because the closure dates for both DCPP units are fixed and the time needed for cooling the off-loaded fuel such that it cannot overheat is the same regardless of the scenario in terms of the cadence of off-loading the fuel. Drs. Garrick and Wakefield stated they considered the issue raised by Dr. Peterson as a function of time after the most recent off-load and of the time between refueling intervals as a function of the fuel removal process as well as well as of ongoing heat decay. Dr. Peterson commented and Dr. Wakefield agreed that in quantitative terms the heat generation of freshly off-loaded fuel exceeds all of the heat generated from all of the other SFAs in the SFPs but the heat load drops off rapidly over six to twelve months such that the necessity of having water in the SFP essentially disappears from the

perspective of being able to reach temperatures that could cause oxidation of zirconium. Dr. Wakefield commented most of the immediately off-loaded fuel from a refueling outage is returned to the reactor while approximately 80 assemblies remain in the SFP and he reviewed how heat generation differs between the four offload scenarios. Dr. Peterson observed that the issues is not the total heat generation but the heat generation of the freshly off-loaded SFAs, as those are the only assemblies with the potential for reaching temperatures where oxidation might occur and the important metric therefore would be the rate of heat load drop off for freshly off-loaded fuel which is not dependent on any of the four scenarios described in the study.

Dr. Peterson stated he was not convinced there is any difference in terms of risk associated with any of the four scenarios as in all four cases the freshly off-loaded fuel behaves exactly the same in terms of the rate at which it cools. Dr. Wakefield stated he largely concurred with Dr. Peterson's statement but he observed the issue is a very complex two-part function with one part being the concern of reaching an air ignition temperature and starting an exothermic reaction which adds greatly to the heat generation and the second being the fuel itself for different power levels may still overheat and this is dependent on how much total heat removal from the SFP is available and during a station blackout event as after a seismic event the plant might not have the capability for forced removal of heat through the ventilation system. Dr. Wakefield stated there is an issue as to how much heat removal one can achieve as a function of the temperature of the fuel which is itself depends upon time and the individual assembly power levels and a table of assumptions after shutdown is included in the Study which uses data on heat-up analysis done for the first 100 days or less of an outage and this was used to assess two categories of severe accidents, the first being simple boil-off of the SFP water inventory with no leaks from the SFP and the second being for the case where a SFP leak occurs and causes a relatively rapid loss of inventory.

Dr. Peterson stated there is a threshold where the air can effectively cool the assembly such that it will not reach a temperature where zirconium will start to exothermically oxidize and provide additional heat but it is a very complex problem to understand where that happens and this is a key uncertainty as to when an accident may become more severe. Dr. Peterson stated the issues are complex but he agreed with the Study's general approach and the conclusions reached. Dr. Wakefield observed Figure 811 of the Study shows how the risk metric varies with changes in the models for when the fuel is assumed to overheat which he stated is largely assessed by how many of the previous reactor off-loads are involved in overheating and sensitivity studies were undertaken assuming all the fuel overheats, and also for overheating of only the fuel from the most recent offload at certain times after its initial entry to the SFP, and the four different off-load risk metrics are a function of those assumptions. Dr. Peterson described this as a sound approach which would provide on a good understanding of the most likely consequences. Dr. Wakefield observed that while the rank order of the metrics for the off-load scenarios are the same, the degree of difference definitely changes depending on the assumption he described. Dr. Peterson commented the Study having looked comprehensively and deeply across all the different physical phenomena, characterizing them, and performing

sensitivity studies gives him confidence. Dr. Garrick remarked he and Dr. Wakefield spent an enormous amount of time trying to represent the dynamics of the whole problem including assessing the air cooling capability under a 3.G spectral acceleration earthquake with respect to the damage which would be expected to the Fuel Handling and Auxiliary Buildings which would impact their ability to provide passive air flow and accordingly the air cooling.

Dr. Wakefield stated accident sequences initiated by seismic events much larger than the design basis represent 95% of the SFP risk. Dr. Garrick stated this is very different from core damage frequency as here seismic is the primary contributor. Dr. Wakefield called Dr. Peterson's attention to the Study's conclusion that it is unlikely that more than two reactor core equivalents of fuel assemblies (i.e., ~400 fuel assemblies) would overheat following fuel uncovery for any of the four offload scenarios. Dr. Peterson commented this conclusion makes sense as it points to the importance of the factor of how long has it been since the fuel was offloaded and the small differences between the risk in the four scenarios and he commented it may be better to base decisions concerning which of the four scenarios should be implemented upon other considerations such as the cost or the logistics involved for completing decommissioning.

Dr. Lam stated his impression was the same as Dr. Peterson's, that is, there is really no single scenario that comes out to be the one of choice and other parameters will come into PG&E's consideration of choosing a scenario for DCPP. Dr. Wakefield agreed and stated that licensing issues will also play a role in deciding what off-load scenario to use as it will be necessary to maintain a certain configuration of SNF in the SFP, as well as to understand the kind of MPC that will be used. He reported Scenarios 1-3 were postulated on the use of a MPC with 32 assemblies while Scenario 4 was determined for a MPC with 37 assemblies which reduce the number of trips needed by a factor of ten and provides different limits on the heat generation allowed for each MPC. He remarked PG&E has stated the use of a 32 or a 37 capacity assembly MPC would be independent of the chosen off-load scenario.

Dr. Wakefield described takeaways from the study and some of the study's primary uncertainties as including human performance, the extent of cesium release given fuel uncovery, and the seismic capacities of the SFPs and the Fuel Handling and Auxiliary Buildings which enclose the SFPs and the degree to which those structures might fail. Dr. Garrick remarked the issue of decay time between cesium 134 versus cesium 137 becomes critically important when cesium is used as a surrogate and Dr. Wakefield commented on the activity when the fuel first comes out of the reactor as compared to five years later when the decay of cesium in each fuel assembly has reduced the activity so even if the same amount of fuel assemblies were to overheat the amount of cesium activity released would be lower.

Dr. Peterson commented that the uncertainty over human performance is an important issue and after the accident at the Fukushima Dai-Ichi Nuclear Power Plant in Japan, the nuclear industry adopted the FLEX Program which involves providing training, equipment and resources, as well as the responsibility and authority, to plant staff so that staff will have the

capability to diagnose and respond effectively to beyond design basis conditions. He remarked the principles embodied in the FLEX Program are important aspects in reducing the risks in response to disasters of all types and have wider validity in areas outside nuclear such as the current coronavirus pandemic. He inquired as to how best to understand and integrate human behavior into a risk assessment so as to be able to best provision necessary resources and he described this as one of the single most important variables that today we have the capability to effect such as is being done through the FLEX Program.

XIX INFORMATIONAL PRESENTATION BY A COMMITTEE MEMBER AND DISCUSSION BY MEMBERS AND TECHNICAL CONSULTANTS

The Chair asked Dr. Budnitz to make the next presentation.

Presentation by DCISC Member Dr. Robert J. Budnitz
on Dr. Budnitz' Evaluation of the Spent Fuel Risk Study.

Dr. Budnitz reported he performed a detailed evaluation of the Spent Fuel Risk Study (Study) and would in this presentation provide his first overview. He commented the Study was first-rate in every way given that time limitations that were imposed by external conditions and Dr. Budnitz extended his congratulations to Drs. Garrick and Wakefield on the thoroughness of the Study which Dr. Budnitz remarked should be taken seriously as an important contribution to the overall decision concerning spent fuel off-load.

Dr. Budnitz commented he learned much about understanding risk and the crucial import of understanding the uncertainties from Drs. Norm Rasmussen and Saul Levine and also from Drs. Garrick and Stan Kaplan. He confirmed the crucial questions were as presented by Dr. Wakefield, that is, what can go wrong, what is the likelihood of occurrence, and what are the consequences. Dr. Budnitz stated his view that it is crucial to understanding risk to understand all of the important accident sequences that lead to the undesired endpoint and there have been numerous past studies concerning accidents involving spent nuclear fuel (SNF). Once identified, certain sequences can be screened out based on importance due to their a very low frequency or consequence, or perhaps the sequence is dominated by another almost identical sequence in which case the lesser can be screened out. Dr. Budnitz stated screening in and screening out is a crucial step to complete before getting to an analysis of each remaining sequence. He commented this analysis is not just of the physical phenomena but also of the sequence of events and it requires quantification of the frequency with which each sequence occurs as well as the frequency of the initiating event that commences the sequence and finally of the frequency of the occurrence of the undesired endpoint. For the Study of SNF risks the consequence of interest for the bulk of the analysis involved the uncovery of the fuel in the SFP and mechanical damage to the fuel in the dry cask area as to how cooling could be lost and the endpoint was a radiological release. The endpoint consequences are further weighted by the differences in a radiological

release.

Dr. Budnitz commented it is identifying, understanding, and weighing the uncertainties that populate these analyses which determines how much confidence one can have in them so as to use the results as the basis on which to make a decision.

Dr. Budnitz reported he spent a great deal of time in his evaluation reviewing the identification of all the sequences identified in the Study and in this effort he had the benefit of other studies performed by the NRC and the industry. He stated he concurred with each sequence that was screened out and he concluded there was nothing screened out of the Study that should have been retained. For the phenomena and actions for each sequence of events analyzed in the Study Dr. Budnitz reviewed each in detail and, based on his extensive professional experience, he reported their identification and quantification in the Study was thorough. Dr. Budnitz stated the conclusion in the Study that to take credit for air cooling of the fuel would take much more work than the technical basis and resources available to Drs. Garrick and Wakefield, and would likely require an entirely separate study, was sound and therefore the Study does not take as much credit for air cooling as it might have had a separate study been done. This means that some of the radiological phenomena are more pessimistic that they might have otherwise been but Dr. Budnitz reported the difference is not important to the rankings of the four scenarios identified in the Study but would have made a difference in the numerical values of the analysis.

Dr. Budnitz reported he reviewed the approach and methodology in the Study, the use of some approximations and estimates, the expression and implications of the uncertainties and concluded these were all handled admirably.

Dr. Budnitz reported the Study's conclusions concerning the SFP that earthquakes dominate the risk, with the frequency of other scenarios not involving earthquakes being very low, makes perfect sense. He reported the seismic hazard at DCPP, although better understood than at most sites, has a lot of uncertainty due to the lack of large earthquakes to produce better data for large seismic events. Dr. Budnitz stated that to reduce this uncertainty and better understand the numerical value of the sequences one would have to have a civil engineering/structural engineering analysis of earthquake damage to the SFPs and the resulting possibility of leaks from the SFPs. He reported the Study relied on an approximation and he remarked that with more resources or an engineering study the Study could have been refined. Dr. Budnitz referred to the assumption in the Study that for identical components located in proximity to each other that an earthquake would damage both and he characterized that as, in his opinion, a pessimistic assumption as there are more refined methods to analyze the correlations used. Dr. Budnitz commented that above a certain earthquake level there is the probability that human error will increase substantially and above the level of 3.5G or 5 herz spectral the Study takes no credit at all for operator actions and Dr. Budnitz commented this was

another pessimistic assumption as there may be several hours for operators to take certain actions to mitigate the effect of the earthquake. He stated the analysis of air cooling in a loss of SFP water inventory situation is dependent upon the heat load and thermal properties of the fuel and this represents a very complicated problem. Dr. Budnitz stated that in its entirety the Study and its results, including the understanding of uncertainties made good sense and provides a sound basis for decision-making.

With reference to the transport of SNF Dr. Budnitz observed this involves many activities and mechanical and various operations but the undesired endpoint is mechanical damage to the fuel. He reported the Study concludes all of the scenarios that matter have such low frequencies that they do not affect the risk very much and Dr. Budnitz stated he agreed with that conclusion. As for the ISFSI and the dry storage SNF casks the cooling is entirely passive and again earthquakes are of concern in that a cask could be tipped over or a landslide could cover a cask such that air-cooling is impeded. Dr. Budnitz reported the analysis here is also difficult but he stated he was satisfied with the Study's conclusions that the risk to the dry cask facilities was only a small fraction of the risk to the SFP and the risk of a radiological release from the dry cask is very low as compared to the risk from a large earthquake. Dr. Budnitz commented that in his professional opinion the analysis was robust even though uncertainties remain.

Dr. Budnitz stated his belief that the Study identified all of the accident sequences of concern, screened out many of them appropriately, and adequately quantified the frequencies and applied a sensible hierarchy to the risks for the SFP, in the transportation of the SNF, and at the ISFSI. He stated the consequences identified in the Study if something other cesium 134/137 as a surrogate was used would probably produce some differences but the differences would not be important in structuring the four scenarios.

Dr. Budnitz identified internal fires and flooding causing loss of equipment as important contributors to core damage frequency and these were admittedly ignored in the Study. Dr. Budnitz stated that upon reflection he believes this does not make much differences as the likelihood is small of having a fire or flood cause an equipment failure as compared to a large seismic event due to the time which would be available, absent a concurrent seismic event, to address internal fire or flooding and the probability of a successful recovery is very high.

Dr. Budnitz concluded his presentation by observing that in his judgment one of the four scenarios is safer than the others but for all of them the risk is really low compared to other risks that matter such that making a decision between the four scenarios shouldn't be driven by the fact that one is lower as there are other factors to consider. Dr. Peterson observed it is interesting that a dominant risk involves uncertainty about the level of structural damage from seismic events and uncertainty regarding human performance because there is a set of simple things people at DCPP can do to mitigate the risk and increase the time for operators to respond to an event including the emphasis brought by the DCISC on workplace seismic safety for personnel,

as protecting personnel should have the same level of importance as protecting structures and equipment. Dr. Budnitz agreed and further observed that an earthquake in excess of 3.5 G for which no credit was taken in the Study for human performance has never occurred in recorded history.

Dr. Lam requested Mr. Baldwin to introduce the next speaker. Mr. Baldwin introduced Mr. Philippe Soenen, Manager of Decommissioning Environmental and Licensing at DCPP. Mr. Baldwin reported Mr. Soenen has employed at DCPP for 17 years and he holds a Mechanical Engineering Degree and has led a number of projects in the Licensing Department as well as for the DCPP and Humboldt Bay Power Plant spent fuel licenses.

Mr. Soenen reported the Spent Fuel Risk Study (Study) was conducted based on feedback provided by PG&E's Diablo Canyon Decommissioning Engagement Panel and input from the California Energy Commission and two of the four scenarios evaluated in the Study were proposed by the California Energy Commission which had the opportunity to review the proposed technical evaluation of the criteria for the new multi-purpose cannisters (MPCs).

Mr. Soenen reported all four scenarios considered have a cooling time that is less than what is currently allowed. At present, approximately ten years of cooling is required before a SFA can be loaded into a MPC and removed to the ISFSI.

Mr. Soenen reported that at the end of March 2020 a request for proposals was issued to interested vendors to provide a design and licensable system with the lowest spent fuel inventory scenarios which would allow commencement of implementation prior to shutdown of Unit 1. Consistent with the proposed Settlement Agreement in the 2018 Nuclear Decommissioning Cost Triennial Proceeding (NDCTP) the request is for a design that would allow a period not to exceed four years of cooling time for each unit after shutdown, that is, by November 2028 and August of 2029 respectively. Responses are expected to be received from vendors this month and will be reviewed. Mr. Soenen stated the criteria are split into commercial and technical sections and the California Energy Commission will have an opportunity to review the technical section of the proposals. He reported the financial health of the vendors, as part of receiving assurance that the selected vendor will be available to support the new design in the future, as well as NRC licensing criteria and time frame will all be part of the commercial section of the proposals. The technical section will include evaluation of the shielding capacities of the systems proposed as well as their heat load capabilities.

Mr. Soenen reported DCPP is responding at the present time to questions from the vendors and management input should be received in October 2020 and negotiations with the finalists will then commence and are expected to take approximately one year. Mr. Soenen stated PG&E is now expecting to be in a position to issue a contract sometime in the first quarter of 2022 and the whole process will inform the 2021 NDCTP which is due for filing at the end of

2021. He reported two years following the contract signing is expected to be required for designing, licensing and permitting the new casks and then off-loading the fuel is expected to be implemented just before or around the time of permanent shutdown. In response to Dr. Budnitz query Mr. Soenen stated the request for a four-year time frame with respect to thermal capacity of the MPCs is unique to DCPP as is the design which must have special seismic capacities and there is no "off the shelf" product available at this time.

Following Mr. Soenen's presentation Mr. John Geesman representing the Alliance for Nuclear Responsibility was recognized to address remarks to the Committee. Mr. Geesman stated he found much good material in the Spent Fuel Risk Study and the Alliance for Nuclear Responsibility is a party to the Settlement Agreement in the 2018 NDCTP. He remarked the Alliance litigates issues at the state agency level but does not litigate at the federal level and has not litigated the issue of whether wet storage is safe enough, instead the Alliance takes the position that dry storage represents a qualitative improvement in risk. Mr. Geesman stated that Dr. Peterson has expressed the opinion that federal taxpayers will pay for all dry storage due to a breach of contract committed by the Department of Energy in 1998 and the federal judgment fund which pays those costs is not a part of the federal budget, so effectively the cost to do so does not count against the federal deficit. Mr. Geesman stated in his view the choice PG&E and California state agencies are confronted with is a relatively low cost decision, choosing amongst four very capably outlined options with the risk spread between the four scenarios in the study being 41% of a small number. But Mr. Geesman observed the public would expect a response based on the least risk and the most cost effective approach to resolving this problem. He agreed with the Committee and with the Study's conclusion that seismic considerations drive the risk but he remarked that many persons would find the risk of a terrorist act to have a greater recurrence factor than 57,000 years and most national policies in the past 20 years have been based on a significantly enhanced appraisal of that risk and it is virtually an impossible risk to quantify and is therefore difficult to compare to seismic risk.

Mr. Geesman remarked that in his opinion the Study would have been better had it more productively engaged with the National Academy of Sciences and the Academy's engineering critiques of the NRC assessment issued in 2013 and he observed that if PG&E does anything other than chose the accelerated transfer to dry cask scenario the criticism of the NRC's approach will be a constant issue and will be raised. In response to a query from Dr. Peterson to clarify the which scenario completes the offload at the earliest time Dr, Wakefield replied that during his presentation he referred to "earliest offload" as the scenario that moves the most fuel assemblies out of the SFP before permanent shutdown while in Mr. Soenen's presentation Mr. Soenen referred to "earliest offload" as the scenario that completes the offload at the earliest point in time. Dr. Wakefield commented even though his reference to the earliest offload scenario maintained fuel in the SFP for an overall longer duration, the Study's assessment of the potential for overheating in later years was that the fuel would not overheat as there is insufficient decay heat in the SFPs and represented the scenario with the fewest numbers of fuel

assemblies in the SFP late in the transfer process and also fewer numbers of fuel assemblies in the SFP prior to permanent shutdown. The scenario with the earliest total of emptying the SFP had the next lowest risk.

Mr. Geesman stated the NRC's Quantitative Health Objectives (QHO) assessments are now somewhat dated after 30 years and have also received considerable criticism both within and outside the NRC. Mr. Geesman credited the authors of the Study for including the chart with NUREG 2161 and the scenario by the NRC to soften the out-datedness of the QHO is important to the state agencies and to PG&E to assess what the consequences of a SFP accident could be and while no state agency has jurisdiction over radiological safety property damage is a very serious economic concern that the studies by the NRC in 2013 at least made an attempt to address.

Dr. Budnitz responded to Mr. Geesman's remarks and Dr. Budnitz stated he was aware of the criticism by the National Academy of Sciences of the NRC's methodology for SFP risk analysis mentioned by Mr. Geesman but it was Dr. Budnitz' belief that methodological criticisms about that analysis have largely been overtaken by events. He further commented that terrorism considerations are simply outside of the DCISC's remit except as to the extent a certain terrorism event could produce a certain result. Dr. Lam commented the NRC now has a position that terrorism is a matter of national security and attacks on a nuclear facility are not to be considered outside that context. Mr. Weisman commented the Alliance for Nuclear Responsibility spent considerable time reviewing the National Academy of Sciences criticism and the NRC responded to this criticism and in 2016 the National Academy repudiated the NRC response.

Mr. Geesman added to his remarks by observing the recommendation of the California Energy Commission in 2008 called for utilities to reduce the density in their SFPs and that somehow this has become interchangeable with the issue and semantics of accelerated transfer of the fuel. He stated his view that PG&E should choose among the scenarios and select the scenario that would best restore customer confidence and trust in PG&E's decision-making.

Ms. Jane Swanson representing the San Luis Obispo Mothers for Peace was recognized. Ms. Swanson stated that in her opinion the NRC's public safety standards relative to the Quantitative Health Objectives (QHO) do not set an absolute standard as the NRC overuses terms such as "adequate" and "ALARA" (as low as reasonably achievable) in context of safety which represent compromises that cannot be quantified. Dr. Peterson stated there is a quantitative basis for both the NRC's QHO and for ALARA and he explained for the QHO the risk must be less than one in a thousand of all the other health risks that affect people in the area of a nuclear power plant and for ALARA one looks at the cost to implement measures to reduce worker dose or dose in general which is a quantitative measure for risk and then a decision is made based on the cost which is a common method of managing risk. Dr. Wakefield observed the QHOs were finalized in 1987 and included two goals, the first being the prompt fatality and

the second the cancer fatality. The Study concludes that due to DCPP's surroundings there would be no prompt fatalities no matter the size of the cesium release (the same conclusion was reached for the similar Peach Bottom Atomic Power Station in Pennsylvania) and this leaves the cancer fatality quantitative to both objectives and the goal is to limit probability to 2^{-6} per year for an individual within ten miles of the plant and the results of the Peach Bottom calculation provide the conditional probability of latent cancer fatalities given a release of the magnitude under review in the Study for DCPP of 0.4% of the QHO for the scenario with the greatest risk. Dr. Wakefield directed Ms. Swanson's attention to CONSECY-13-0030 for the NRC's analysis to SFP risk for different plants which includes a cost-benefit tradeoff versus the expected health risk to the public and the conclusion for all nuclear power plants in the U.S. was the latent cancer risk is less than 1% of the objective which was determined from a frequency of fuel uncovery event of around 3^{-5} which is approximately half the frequency found by the Study. He remarked that ALARA is also mentioned in the CONSECY study.

Dr. Lauren Brown, a Member of the Diablo Canyon Decommissioning Engagement Panel, was recognized. Dr. Brown stated he found the presentations made to the Committee to be excellent and they are complimentary to the work of the Decommissioning Engagement Panel. He inquired of the DCISC Members whether it would be correct to say the DCISC does not believe there to be a great deal of difference in the risk among the four scenarios identified in the Study and, if so, is it reasonable for PG&E to base its decision on other factors such as the cost to the ratepayer in terms of the total cost of decommissioning or perhaps the time needed to ultimately empty the SFPs. Dr. Budnitz responded and he stated the opinions he expressed during his presentation were his own and the DCISC has not taken a position as a body on the matters he discussed.

Dr. Lam stated he was not prepared to enter into a debate as to whether or how to choose between the four scenarios in the Study and commented it was in his view too early to think about which scenario to select as there remain significant issues concerning the selection, design, manufacture, and licensing of new casks and he believes there are significant procedural and policy barriers in that regard. Dr. Budnitz remarked the Committee's concern is with safety and if all the scenarios are safe enough such that other considerations are going to be involved the Study provides the analysis for such a conclusion that each scenario is safe enough.

Ms. Jill ZamEk was recognized to address remarks to the Committee. Ms. ZamEx inquired as to how the determination of a large earthquake occurring every 57,000 years was made and she inquired whether casks which would be capable of achieving an offload of the SFP in less than ten years exist at the present time. She also inquired concerning the percentage difference in the risk scenarios which she gave as 46% and how that can be considered to be a small number. In response to Ms. ZamEk's inquiries Dr. Wakefield stated the 57,000-year interval was determined as a result of the assessment of different seismic acceleration levels, each of which has a different frequency of occurrence, and given an earthquake in a particular

interval of acceleration occurs there a conditional probability of the seismic impact on the structures and equipment such that the earthquake results in fuel uncovery and that analysis was done by the Study for each range of the sixteen different earthquakes that were assessed and the data compiled which yielded a 1.748^{-5} probability for which the inverse is 57,000 years. Dr. Garrick stated the question as to the percentage difference in the risks was a good question and he explained that when risks are one thousand times below the threshold of acceptance, a change in the result by a factor of even ten is not particularly relevant and the percentage cited by Ms. ZamEx is an artifact of the theory of extremely small numbers. He stated risk numbers are usually presented within a distribution to indicate the level of confidence and if one plotted a curve of each of the four scenarios identified in the Study their curves would overlap considerably and this would demonstrate the differences are not significant. Dr. Budnitz confirmed information presented by Mr. Soenen that at the present time there are no casks in existence that are designed or accepted to accommodate the off-loading of the SFPs at DCPP.

Mr. David Weisman of the Alliance for Nuclear Responsibility was recognized and remarked that in February 2018 vendors were invited to give public presentations and none of the vendors who presented at that time raised any issues concerning the relatively short time available to get the new casks licensed. Mr. Weisman stated he would make a video of that meeting available to the DCISC. Mr. Weisman described the design of the SFPs and inquired whether the SFPs have a drain in the bottom of the pool, as the top of the assemblies in the pool are below the surface of the surrounding land and the pipes used to fill or drain the SFPs are approximately six feet above the tops of the fuel assemblies. He inquired whether there might be a situation where to enhance air cooling of the assemblies it would be better not to have a partial amount of water covering the assemblies and if so how might the water be drained from the SFPs. Dr. Budnitz responded to Mr. Weisman's question by stating the SFPs do not have drains and Dr. Wakefield stated there could be a leak high or low in a SFP wall or possibly no leak at all and only if the water were to leak or boil-out down so as to uncover the bottom of the inlet plenum to the fuel assemblies would air cooling be sufficient to provide adequate flow down the colder sections of the fuel assemblies and up through the hottest assemblies and in order for a cladding fire to occur the same situation would need to occur. If the water were to be half-way up the assembly there would be no air cooling but there would also not be a reaction of the cladding but what would occur in that situation is a steam reaction with the cladding. Dr. Garrick stated Mr. Weisman's question was a good one in that it addressed conditions under which good convection cooling might and might not be achieved and there is a situation where having some water is not good with respect to enhanced air circulation.

Dr. Budnitz expressed the thanks of the Committee to Drs. Garrick and Wakefield for an excellent presentation and discussion.

XX ADJOURN EVENING MEETING

The Chair adjourned the afternoon meeting of the Committee at 8:15 P.M. and advised those present that the Committee would reconvene at 9:00 A.M. on the following day.

XXI RECONVENE FOR MORNING MEETING

The July 2, 2020, public meeting of the Diablo Canyon Independent Safety Committee was called to order by its Chair, Dr. Peter Lam, at 9:00 A.M. Dr. Lam welcomed those persons present in the audience and watching the proceedings on live streaming video. Dr. Lam requested any of the members of the Committee who wished to make remarks to do so at this time.

XXII COMMITTEE MEMBER COMMENTS

Dr. Peterson remarked concerning the presentation on the Spent Fuel Risk Management Study and he observed the risks associated with the different scenarios described in the Study are very small and required an analysis of extremely rare or infrequent events and consequently the overall impact on safety from selecting between the four scenarios is very small and it is quite reasonable and appropriate for other criteria as to which scenario to select to enter the decision. **Dr. Peterson stated one such criterion might be the amount California ratepayers will pay for decommissioning DCPP and Dr. Peterson stated the DCISC should speak to the significance of the differences in safety in context of cost to the ratepayers. Dr. Budnitz remarked the Committee might start by trying to come to a consensus about the relative risk of the activities described in the Study compared to the risk when the plant is operating and generating electricity and he observed this is clearly within the DCISC's expertise and its remit from the CPUC. The Members agreed that, with the delegation to the Consultants to develop and agenda, a discussion during the next public meeting of this topic would be appropriate and the discussion could lead to a conclusion or a recommendation by the Committee as to the approaches that might be used to manage the off-loading SNF from the SFPs.**

Consultant McWhorter observed the Diablo Canyon Decommissioning Engagement Panel is scheduled to hold a remote meeting on the topic of spent fuel on September 9, 2020, which is the first day of a scheduled DCISC fact-finding to be conducted remotely by Dr. Budnitz and Mr. Wardell and the DCISC representatives may want to plan to listen to Panel's meeting and to note the input received by the Panel from members of the public. Mr. Wardell commented the Committee may want to inquire of PG&E as to the plans for the Study and perhaps the Committee should wait and review PG&E's decision and any action to be taken. Dr. Budnitz remarked the Committee as a whole has yet to take a formal position on the risks identified in the Study.

XXIII PUBLIC COMMENTS AND COMMUNICATION

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

Mr. David Weisman, a representative of the Alliance for Nuclear Responsibility, was recognized. Mr. Weisman directed the attention of the Committee to the PowerPoint presentation made by DCPP's Mr. Tom Jones at last meeting of the Diablo Canyon Decommissioning Engagement Panel during which Mr. Jones provided information on the time lines with evaluation of vendor proposals expected to be completed by September 2020, to be followed by requests for bids and he observed that the DCISC having access to the information developed in those contexts would greatly help to inform the Committee's discussion in October 2020. Mr. Weisman confirmed Dr. Peterson's observation that there is a nexus between safety and financial considerations and while he acknowledged Dr. Budnitz' observation that some of the funds for decommissioning will come from federal taxpayers, he stated his belief that some funds will also come from California's ratepayers. **Dr. Peterson directed that a fact-finding be held to review the information cited by Mr. Weisman with, if necessary, appropriate protection for proprietary information so that the information would be available at the October 2020 DCISC public meeting**. Dr. Lam remarked the process of manufacturing and licensing a cask for use is not as expeditious as has been forecast and includes numerous technical and policy barriers and he stated he has serious concerns about what he described as an optimistic schedule and believes the Committee has time to make its assessment. Mr. Wardell observed and Dr. Lam agreed the risk Study and the decision on spent fuel storage casks are not necessarily directly related and the Study involves the timing of when the fuel is removed from the SFPs and removal of the fuel could be accomplished with the same type of casks which have been used by DCPP in the past without making a decision on the use of a new cask. Dr. Budnitz remarked if the plant were to start a new spent fuel loading campaign during continuing operations the DCISC needs to be concerned with any interface, positive, negative or neutral with safety. Dr. Lam observed the reality is that at the present time DCPP has no inventory of casks available with which to conduct a loading campaign.

Mr. Weisman commented that since 2008 the idea was to lower the density of the spent fuel in the SFPs and he observed the ability to continue to conduct spent fuel loading campaigns was unilaterally aborted by PG&E without consultant with the California Energy Commission. He remarked it was the Alliance for Nuclear Responsibility having filed an Order to Show Cause against PG&E's attorneys for why they had abrogated the agreement with and responsibility to the California Energy Commission which provided the impetus for the Spent Fuel Risk Study discussed at this public meeting and not as Mr. Soenen had claimed the input from the Diablo Canyon Decommissioning Engagement Panel. Mr. Weisman remarked the Alliance for Nuclear Responsibility would again address these issues in the 2021 Nuclear Decommissioning Cost Triennial Proceeding.

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

Mr. Rathie reported that the next informational presentation was a change in the order of the agenda and the item on the agenda for a presentation on the Unit 2 forced outage has been deferred due to recent information on that event received from DCPP.

The Chair requested Mr. Baldwin to introduce the next presenter. Mr. Baldwin introduced the DCPP Director of Operations Mr. Denis Petersen and stated Mr. Petersen has been with PG&E for 33 years, holds a Bachelor of Science Degree in Aeronautical Engineering and has held a license as a Senior Reactor Operator and has held senior leadership positions as Director of the Quality Verification, Outage Management, Learning Services and Nuclear Work Management organizations at DCPP.

Recent Human Performance Issues in the Operations Department:
Causes and Corrective Actions.

Mr. Petersen described the current performance of the Operations Department as very good with resources supporting that success including the ability to effectively leverage and monitor the use of performance improvement tools. Operating crews on the day shifts participate in crew management review meetings with senior plant leadership and the plant manager and review a database of feedback and insights provided by operating crews over the past five-week cycle. He reported recent scheduled plant power level changes have been executed very well including for circulating water pump tunnel cleaning and for turbine valve testing. Both were done safely and error free. Mr. Petersen stated the Operations Department has partnered with the Training Department to improve performance and COVID mitigation measures have minimized Operations Department personnel unavailability. Mr. Petersen reported Performance Shift Manager Mr. Stan Williams is now serving as interim Operations Manager.

Mr. Petersen stated the Operations Department has now recovered from a shortfall in performance and a new Excellence Plan has been implemented as a key driver to eliminate those shortfalls by effecting a transition from the prior plan which was focused on status control and to strengthened leader engagement. Mr. Petersen commented the new Excellence Plan was benchmarked from the Chevron Corporation and the only action remaining to be completed is an effectiveness review of the Operations Department's Excellence Plan.

Mr. Petersen reported the 2018 nuclear reactor operator license class completed in March 2020 with a 100% pass rate and the personnel from that class are now assigned to operating crews. The 2019 license class with 24 students is the largest in Mr. Petersen's experience, with half the class now training with operating crews and the other half training in the classroom and

in the Simulator Facility (a full-scale mock-up of the Unit 1 Control Room). The 2019 class is scheduled to take the NRC examination in February 2021. A class for non licensed nuclear operators commenced in March 2020 with 11 students and the class is progressing well with a few delays due to COVID strategies impacting the training programs and remote learning opportunities. That class is scheduled to complete in November 2020. Mr. Petersen reported the attrition rate in the Operations Department is lower than forecast and hiring has been conducted in advance of the forecast attrition to ensure a staffing margin is maintained. In response to Dr. Budnitz' query Mr. Petersen replied that most of the members of the non licensed nuclear operator class were not persons already employed at DCPP. Dr. Lam remarked and Mr. Petersen agreed it was good, although DCPP is scheduled to shut down in a few years that the plant still retains a significant capacity to recruit and retain well qualified personnel. Mr. Petersen remarked that his predecessors had carefully considered attrition rates and worked with senior leadership on achieving alignment, as it does take a significant amount of time to train and qualify licensed operators.

Mr. Petersen commented on a plant status control issue which occurred in November 2019 which was the subject of the NRC's fourth quarter 2019 report involving what he described as a premature mode change due to human error made by a team of operators. He stated that following the event a focus was placed on operator fundamentals, that is, the essential knowledge, skills and practices that individuals and crews must exhibit to operate the plant effectively. He displayed a slide showing the operator fundamentals which include the following attributes:

- Monitoring closely,
- Controlling precisely,
- Maintaining a conservative bias,
- Effective teamwork, and
- Plant knowledge.

Small commemorative disks have been made identifying each of these fundamentals and disks are awarded to operating crews who demonstrate above and beyond performance of a particular attribute and Mr. Petersen described this as an effective tool in developing advocacy of operator fundamentals among operating crews.

Mr. Petersen concluded his presentation by reporting that trends in the Operations Department are now solidly within the excellent category and his organization will continue to focus on low-level error in order to sustain this excellent performance. In response to Consultant Wardell's inquiry Mr. Petersen stated the effectiveness review will focuses on performance and on ensuring that all of the drivers to identified gaps in performance have been addressed and in the event of a recurrence, that additional actions are taken if needed. **Mr. Petersen remarked**

two Operation Department quick-hit assessments should be completed in August 2020 and Mr. Wardell stated these might be a topic for a future fact-finding possibly in September 2020.

Mr. Baldwin next introduced DCPP Outage Manager Mr. Matt Coward and stated Mr. Coward holds a degree in Mechanical Engineering and is a registered Professional Engineer. Mr. Coward began his career in the Engineering Department and then moved on to the Operations Department and holds a license as a Senior Reactor Operator and has led DCPP's operations crews. Mr. Coward subsequently moved into positions as Operations Planning Manager and then to Outage Manager.

Plans for the 22nd Refueling Outage for Unit 1 (1R22)

Mr. Coward stated refueling outage 1R22 is scheduled to commence on Sunday, October 4, 2020, and is scheduled for a duration of 30 days. He described and discussed with the Committee the major scope items for 1R22 as follows:

➢ Steam Generator Eddy Current Testing - Mr. Coward stated this testing is required by DCPP's license from the NRC and is performed every third refueling outage and 1R22 will be the final outage eddy current testing will be done on either unit. In response to Consultant McWhorter's inquiry as to whether a decision has been made to defer the secondary side inspections, Mr. Coward confirmed that secondary side inspections will not occur during 1R22 unless something is detected by the eddy current probes on the primary side. Due to the minimal amounts of sludge produced in the past by the new steam generators DCPP is not planning to address the secondary side of the steam generators. Mr. Coward reported some main condenser tubes will be inspected along the periphery and feedwater heater eddy current inspections will be done. He stated the only scope item still in question involves the In-core Neutron Detector System thimble tubes. Mr. Coward remarked the COVID-19 pandemic has caused some uncertainty as to the availability of supplemental personnel to be assigned to the Radiation Protection organization and this is a factor in the planning for 1R22.

➢ Reactor Hot Leg Nozzle Ultrasonic Inspection - to be performed by Westinghouse, is conducted under water and includes use of a robotic machine that ultrasonically tests for flaws in the hot leg nozzles.

➢ Reactor Coolant Pump Seal Replacements - in response to Consultant Wardell's inquiry, Mr. Coward confirmed the seals being replaced during 1R22 are the Westinghouse shut-down seals that were installed four refueling outages ago and which function to seal off the Reactor Coolant System and these seals are very effective in addressing probabilistic risk assessment as well as the plant's response to loss of AC power. Mr. Coward reported the schedule is to replace

the seals after four cycles of operation based on time and preventive maintenance considerations and this replacement should be the last for Unit 1.

➢ Refueling Manipulator Crane Variable Frequency Drive (VFD) Replacement - part of the ongoing effort to improve fuel handling equipment reliability.

➢ Polar Crane Overspeed Trip Modification - to address problems experienced during 1R21.

➢ Refueling Cavity Upender Bushing Replacement - these bushing are located in the lower reactor cavity and during a prior outage some wear was identified. Mr. Coward described this as a radiologically significant job, akin to eddy current testing, and plans and vendor support are in place.

➢ Low Pressure Turbine "C" Removal and Inspection - part of ongoing inspection activities and Mr. Coward stated this should be the last inspection for Low Pressure Turbine "C." In response to Dr. Budnitz' query Mr. Coward confirmed this was a routine outage activity and three of the six low pressure turbines have been inspected with no issues of significance identified.

➢ Circulating Water Pump (CWP) 1-1 Motor Overhaul.

➢ Intake Cooling Water Heat Exchanger 1-1 Tube Bundle Replacement - to address problems experience with heat leakage.

➢ 4 kV and 480V Vital Bus H Maintenance - no modifications are planned. In response to Dr. Budnitz' inquiry Mr. Coward reported that a vital bus is allowed to be cleared after the upper internals of the reactor are removed but the work will remain as a part of the critical path and the challenge has been to hire persons with the necessary qualifications and he commented the 4kV to 480V transformer has an internal spacer that is installed for seismic purposes and it is sometimes found during inspection to have become misaligned.

➢ 230 kV tower replacement - Mr. Coward stated the 230kV Tower serves as a common tower for both units and the tower is located outside the plant's protected area. He reported this is a project of PG&E's Transmission organization not DCPP and the tower is to be replaced by a similar tower.

➢ 500 kV Tower Insulator Replacements - the 500kV towers are located outside the protected area and all insulators on the first-off tower from Unit 1 will be replaced. As with the

230kV tower, as a project of PG&E's Transmission organization.

Mr. Coward reviewed the critical path for 1R22 as follows:

- Cool Down and Depressurize.
- Reactor Disassembly –Upper Internals Removal.
- Vital Bus H Outage.
- ECCS Valve Interlock Testing.
- Reload the Reactor.
- Reactor Reassembly.
- Plant Heat Up and Testing.
- Reactor Startup and Physics Testing.
- Roll Main Turbine and Parallel to the Grid.

Mr. Coward discussed the first time evolutions to be performed during 1R22 including the 230 kV tower replacement which will requires a site 230 kV outage and require Unit 2 to enter a 72-hour shutdown action based upon inoperable start-up power as a result of the tower replacement. Mr. Coward stated a considerable amount of work has been performed pre outage to identify where the rebar is located in the tower's foundation. Technical evaluations and contingency planning are being performed in case of vendor support impacts. Mr. Coward reported DCPP benchmarked the spring outage experience of other nuclear power plants including Canadian plants and the experience of the Sizewell Nuclear Power Stations in Suffolk, England and found there were some minor impacts to activities at those plants due to the coronavirus. He reported DCPP has learned from its contacts with those plants that there needs to be some sort of screening for workers, whether it is self-screening or temperature screening at the Security building, that training facilities need to be separated, and there need to be clear expectations, including implementing and reinforcing those expectations as site standards, concerning the use of personal protective equipment for COVID-19 protection. He reported COVID contingency planning for 1R22 includes:

- Social distancing protocols well developed. These include in-processing as well as outage implementation. Approximately 600 supplemental contractor personnel will be brought on site for 1R22 including from the Siemens firm for the low pressure turbine project and from Westinghouse for fuel handling assistance and reactor disassembly. A high-speed connection may be set up for analysts working on the eddy current inspections. In response to Dr. Budnitz' comment that a member of the public at this meeting expressed concern that supplemental workers brought on the site for 1R22 might not be inclined to follow coronavirus prevention protocols, Mr. Coward replied the nuclear industry is a rule-based industry and it is very good at enforcing those rules and personnel coming on the site for 1R22 will be nuclear professionals. In

response to Dr. Peterson's question Mr. Coward stated encouraging workers not to report for work should they feel ill needs to be a part of the communication effort. In response to Consultant McWhorter's query Mr. Coward confirmed that supplemental workers brought on the site recently for tunnel cleaning were not badged for plant access and accordingly were able to be processed separately from regular plant personnel. He reported DCPP is reviewing staggering shift times so as to reduce putting too many personnel through the Security train at one time and supplemental workers who will not receive an access badge during 1R22 will not go through the Security train.

➢ Positive case protocols for vendors are being developed for refueling outage application.

➢ An Outage COVID team of senior leaders has been implemented to make strategic decisions such as concerning the use of thermal cameras for the Security building and other concerns regarding pandemic impacts, with the focus being on protecting workers and ensuring plant reliability and operation for the next fuel cycle. Mr. Coward reported the plan is to complete the full scope of work for 1R22 but if resources should prove to be constrained technical evaluation would be applied to identify items in the scope that DCPP might elect not to perform. In response to Dr. Lam's inquiry Mr. Coward stated that at the present time a testing protocol requirement has not been finalized and personnel reporting to DCPP are being asked to self-screen.

Mr. Coward identified DCPP's major partners during 1R22 as Westinghouse for the hot leg nozzle inspections, fuel handling, and reactor coolant pump seal replacements, with approximately 30 Westinghouse personnel expected to be on the site with some of them being cross-trained; and Siemens for the Low Pressure Turbine "C" inspection and Main Turbine valve overhaul work.

Following Mr. Coward's presentation Mr. Rathie announced that as of 9:00 A.M.. this morning AGP Video reported 116 persons were viewing the meeting on livestream video and 58 persons viewed the portion of the meeting held last evening.

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

The Chair requested Consultant McWhorter to report on the May 12-13, 2020 fact-finding with Dr. Peterson. He reviewed the topics discussed with PG&E via WebEx during the May 12-13, 2020 fact-finding as follows:

➢ Meet with NRC Senior Resident Inspector – the DCISC fact-finding team (FFT) discussed the planned rotation of resident inspector assignments which will have both resident inspectors replaced this year and Mr. McWhorter reported one of the two new resident inspectors was previously assigned to DCPP on an interim basis.

➢ History of Variable Frequency Drive Modifications to Containment Polar Cranes – the FFT reviewed the history of modifications to the variable frequency drives of the polar cranes and the issues experienced during previous refueling outages. Mr. McWhorter commented variable frequency drives are relatively rare in the nuclear industry as most pumps and other equipment tend to run at constant, fixed, speeds. The polar cranes require the ability to operate at slow speed and to make precise movements and they use a DC overdrive and an AC generator that produces the variable frequency to drive the motor at variable speeds. Problems were identified with the DC motor drive cards in the late 2000's that caused some unreliability and resulted in refueling outage delays. The FFT reviewed the design change package assembled and implemented by a specialized vendor in 2012 and 2013 to replace the motor generator sets with solid state variable frequency drives. Mr. McWhorter reported the variable frequency drives are installed on the ground level of Containment so as to be easily accessible and quick disconnects are employed to permit the drives to be taken out of Containment for maintenance and to allow one unit's variable frequency drive to serve as a spare for the other unit during refueling outages. Mr. McWhorter reported the variable frequency drives on the manipulator cranes are also in the process of being changed and this has been done for Unit 2 and will be done for Unit 1 during 1R22. He reported the spent fuel pool cranes also use variable frequency drives. The FFT concluded the modifications were properly implemented and controlled appropriately.

➢ Training Programs During COVID-19 Pandemic – the FFT reviewed the context of conducting the plant's training programs during the coronavirus pandemic. Mr. McWhorter reported after a two week delay in March, which was adjusted later in the schedule, the licensed operator training program has been continued during the pandemic without the need for any exemptions to NRC regulations. WebEx remote meeting technology is used for classroom training and candidates were on the site for training at the Simulator Facility, with sanitation and risk minimization techniques utilized, and for examination. Initial licensed operator training was shifted to use WebEx and some in-plant and Simulator Facility training was deferred but has now commenced with risk minimization techniques employed to protect the trainees and the operating crews they are paired with. Non licensed operator training candidates reported to DCPP the week the pandemic commenced and were processed as necessary and then instructed to undertake generic on-line training from home. The non licensed candidates have now been brought back to the PG&E Education Center auditorium where social distancing protocols are in place to conduct in-person training sessions Mr. McWhorter reported Maintenance training was delayed by the pandemic but at the time of the FFT visit in May Maintenance training was close to restarting. The FFT concluded training appeared to have been successfully continued during the coronavirus pandemic.

➢ Emergency Diesel Generators (EDGs) – Mr. McWhorter reported the EDGs are used to provide power during shutdown or in accident situations when the plant has experienced a loss of off-site power. The EDGs for both units were in Green health status at the time of the FFT visit and Mr. McWhorter reported that at least since 2013 this has not been the case. He reported the

governors for certain EDGs are scheduled for replacement with upgraded governors to address an obsolescence concern and all three Unit 1 EDGs will have had their governors replaced by October 2020. Only one of Unit 2's EDGs will have its governor replaced due to cost over-run issues and material from the change-out of the governors for the four EDGs will serve as available spares for the two Unit 2 EDGs for which the governors will not be replaced. Mr. McWhorter stated the system engineer reported the governor replacement allows a small improvement in governor response time but the old governors had an adequate response time and should continue to be effective in preventing the EDGs from over-speeding and this will continue to be demonstrated through load rejection testing. The FFT found the plans to replaced four of the six EDG governors to be appropriate. One Unit 1 EDG has a slight oscillation in frequency which is being monitored and has not exceeded the EDG's specifications and this oscillation is expected to be remedied after replacement of the governor. Mr. McWhorter reported the goal to improve EDG reliability and reduce unavailability and component failures has been completed and the plan to do so is now closed. The FFT found significant progress has been made for the EDGs in dealing with long-standing issues.

➢ Process Control System - Mr. McWhorter reported this was a routine review of the digital Process Control System which serves various functions in the Reactor Coolant System such as controlling pressure and charging water flows, volume control tank levels and auxiliary feedwater runout protection. The Process Control System fulfills both safety-related and non safety-related functions and the portions of the system that are safety-related are isolated from the non safety-related portions. The Process Control System for both units was in Green health status and demonstrating good performance with no major issues and appropriate corrective actions in place. In response to Dr. Budnitz' inquiry concerning any compromise to the separation of the safety-related and the non safety-related portions of the Process Control System Mr. McWhorter reported that DCPP has not experienced those types of issues and he stated the Process Control System has a great deal of redundancy and its failures have a very low impact on operability.

➢ Meet with DCPP Director – the FFT met with Station Director Mr. Cary Harbor and discussed items reviewed during their visit.

➢ Attend Plant Health Committee Meeting – the DCISC representatives listened to a conference call meeting of the Plant Health Committee which is responsible for regularly reviewing system and program health issues. The Committee reviewed the Fire Protection System, which was found generally healthy, and the 4kV electrical distribution system which has experienced recent events. The FFT concluded the conference call format worked well and the Plant Health Committee meeting was conducted effectively and efficiently.

➢ Margin Management Program – Mr. McWhorter described the Margin Management Program as designed to monitor the design or operating margins that are present in systems to ensure those margins do not become degraded over time and result in the system being outside

the design basis. He reported the Margin Management Program has recently been eliminated and replaced with the Margin Management Process in accordance with an initiative by the Nuclear Energy Institute. The initiative's recommendation was based upon the functions of the Margin Management Program having largely been performed by other existing programs such as the Design Control Process, System Health Monitoring, and the Corrective Action Program. The FFT reviewed the changes and found them to be appropriate. There is still a process owner for the Margin Management Process to monitor and identify issues that may be related to a degrading margin on a system or process and a Margin Management Review Team meets to review issues as needed and DCPP maintains a top margin issues list. The FFT reviewed the margin issues list and found several items previously on the list have now been resolved including those related to Containment fan cooler unit differential pressure, boric acid transfer pump differential pressure, and Containment leakage rate. Mr. McWhorter reported two open issues on the margin issues list concern the Auxiliary Saltwater System regarding the increase in ocean water temperature and the Auxiliary Building Ventilation System charcoal filter test margin. **In general, the FFT concluded the Margin Management Process was effective and Mr. McWhorter reported the DCISC representatives recommended this as a program to be regularly reviewed by the DCISC.**

➢ Auxiliary Building Ventilation System – Mr. McWhorter reported the systems serves to cool, heat and filter air supplied to personnel and equipment, including safety-related equipment, in the Auxiliary Building. The Ventilation System also filters air and exhaust in accident conditions such that if there is any radioactive gas it is captured by sets of charcoal filters before air is released to the environment. Mr. McWhorter reported the Auxiliary Building Ventilation System is a Tier 2 system such that there is no formal health report but there is a system engineer assigned who is responsible for the system and who briefed the FFT. The condition of the system was described as fair and improving but over the last two years the Auxiliary Building Ventilation System has had a significant number of NRC Maintenance Rule functional failures with three such issues on Unit 1 and seven issues for Unit 2 and accordingly the system is in A-1 status which is the Maintenance Rule's designation for a system with a high number of failures. Mr. McWhorter reported corrective actions have been put into place and a cause evaluation found inadequate periodicity of maintenance to have been a cause commencing in 2015 when the maintenance period was extended from six to twelve months. **He reported most of the actions have now been completed and the system is in monitoring status and the FFT recommended the DCISC review the Auxiliary Building Ventilation System again during 2021 to assess the effectiveness of these corrective actions.** Mr. McWhorter reported a charcoal filter batch sample for Unit 2 failed a surveillance test and as a result that batch was required to be replaced within 24 hours which was successfully accomplished. Review of this issue found the charcoal was able to degrade faster than anticipated and Unit 1 was reviewed for this issue and was found to also have low margin and the charcoal filters for the Auxiliary Building Ventilation System for Unit 1 are schedule to be replaced during 1R22 and the issue is on the margin management list for this purpose. **The FFT concluded the Auxiliary Building**

Ventilation System was in fair health and should be reviewed to assess corrective actions in about one year. Dr. Budnitz observed and Mr. McWhorter agreed that issues with the Auxiliary Building Ventilation System were last reviewed by the DCISC in 2017 and perhaps given the number of functional failures the DCISC should have increased the frequency of its review.

➢ Status of Responding to the COVID-19 Pandemic – Mr. McWhorter observed the DCISC received a report on this topic during this public meeting and there was nothing further to report at this time. In response to Dr. Lam's inquiry Mr. McWhorter commented that it is his understanding the U.S. Naval Academy is processing its incoming class of approximately 1,000 midshipmen in a fashion similar to that DCPP is planning to use for personnel engaged for the upcoming refueling outage, that is, by separating incoming personnel into groups and using testing and temperature monitoring protocols.

Following a motion by Dr. Budnitz seconded by Dr. Lam the May 12-13, 2020 Fact Finding Report was accepted by the Committee and will become part of its 30th Annual Report.

XXVI ADJOURN MORNING MEETING

The Chair adjourned the morning meeting of the Committee at 11:15 A.M.

XXVII RECONVENE FOR AFTERNOON MEETING

The July 2, 2020, afternoon session of the Diablo Canyon Independent Safety Committee was called to order by its Chair, Dr. Peter Lam at 1:00 P.M. Dr. Lam welcomed those persons present in the audience and those watching the proceedings on live streaming video. Dr. Lam requested any of the members who wished to make remarks to do so at this time.

XXVIII COMMITTEE MEMBER COMMENTS

There were no comments by Members at this time.

XXIX PUBLIC COMMENTS AND COMMUNICATION

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

In response to Ms. Lewis queries concerning spent fuel Dr. Budnitz explained that each radiologically hot assembly in the spent fuel pools is required to be surrounded by four cold assemblies in checkerboard pattern such that a cold assembly may absorb heat from more than one hot assembly. Dr. Budnitz explained the rationale for not using dummy assemblies in place of cold assemblies is based upon not creating more low or intermediate radioactive waste that would otherwise not exist.

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

Dr. Lam requested Mr. Baldwin to introduce the next presentation. Mr. Baldwin introduced the Assistant Director of Nuclear Maintenance and Planning at DCPP Mr. Jeff Bryant. Mr. Baldwin reported Mr. Bryant has been at DCPP for ten years and has held positions as Site Manager for Power Services, in the Outage Management Department and now in his present role as the Assistant Director of Nuclear Maintenance and Planning. Mr. Baldwin stated Mr. Bryant's entire career has been focused on industrial construction and maintenance with a constant focus on safety and process improvement.

Integrated Risk Assessment Process

Mr. Bryant stated the purpose of the Integrated Risk Assessment Program is to provide a systematic approach to identifying and addressing each risk exposure to ensure all areas are addressed in a timely and appropriate manner and thereby to ensure a conservative decision making process is achieved that supports the station's overall safety plan. He stated that each event of maintenance or testing results in changes to the base line risk of nuclear power plant operation and presents opportunities to calculate, quantify and mitigate any potential impacts on the station.

Mr. Bryant summarized the risk management process as follows:

- Identifying the potential risks,
- Assessing the risk,
- Preventing and mitigating the risk,
- Implementing risk management strategies, and
- Learning and Adapting.

He described the various areas of risk assessment as including.

- Industrial Safety – what can physically injure individuals?
- Nuclear Safety – what equipment manipulations can harm the plant?
- Radiological Safety – what is the impact on the community?
- Chemistry and Environmental Safety – what are the impacts on the station or the public?
- Regulatory Compliance and plant operations - what is the guidance from the NRC or another regulator?

Mr. Bryant stated the Integrated Risk Review Team is composed of subject matter experts from the Operations (Senior Reactor Operator), Maintenance (Instrument & Control, Mechanical and Electrical), Radiation Protection, Chemistry & Environmental, Safety, Security, Engineering, Emergency Planning, Planning, and Work Control organizations. In response to Consultant Wardell's inquiry Mr. Bryant stated personnel from the Probabilistic Risk Assessment organization are brought in to review work that is regulatory challenging but they do not participate as part of the formal every day review process.

Mr. Bryant stated the "T minus 'x" work week process (with "T" being the work and the number being the number of weeks prior to when it is planned to be carried out). is used to timely identify potential risks and the work scope is identified during T-28 work week window and at T-7 the expectation is that all risk has been identified for every activity and the process of risk review meetings is then commenced. Any work added to the scheduled between T-7 and T-8 requires an additional process and scope addition approval from various levels of management. Clearance tagout risk commences between weeks T-4 and T-3 and at that point the Operations Department validates the schedule and the risk to ensure the maintenance or testing activity will not impact operational considerations, plant status or grid conditions that would limit permissions necessary to carry out the work.

Mr. Bryant described and discussed the four risk levels for which the Integrated Risk Assessment Process provides guidance. In response to Dr. Budnitz' inquiry Mr. Bryant confirmed the risk could be to the worker or to plant safety or to the public. He described the risk levels as follows:

➢ Low Risk - No Additional mitigations required. Workers and supervisors self-brief on the risk and follow site standards and appropriate localized mitigations are made.

➢ Medium Risk - Work documents are reviewed for any required pre-planning and mitigating actions. Workers are briefed on the risk of any increase in personal or industrial safety challenge Procedural guidance is provided in writing together with the use of the Site Standards handbook. Pre-job briefings are conducted. Mr. Bryant commented there are not many activities at DCPP classified as Medium Risk..

➢ High Risk – Work documents are reviewed for any required pre-planning and mitigating actions. A complete risk management plan is prepared and included in all work documents. Workers are briefed on the risk and post job critiques after the work is complete are held for lessons learned. For high risk activities a Risk Challenge Board is convened composed of directors, Operations and key stakeholders, typically from Maintenance and Planning, to verify that the plan will allow for successful completion of the elevated risk work activity. Mr. Bryant stated a template is used by the Board to address prevention, detection and correction in terms of risk. Prevention being the mitigation actions, detection being the unintended consequences, and correction being what actions might be taken if direction were given. These three elements are required to be addressed for all high and very high risk work. In response to Consultant Wardell's inquiry Mr. Bryant stated the risk classifications are listed by risk levels on any scheduling documents and in the plan of the day.

➢ Very High Risk – Mr. Bryant stated the actions are similar to those for high risk work and include review of work documents for any required pre-planning and mitigating actions for infrequently performed tasks or evolutions such as might occur during refueling outages. Completion of a risk management plan and performance of contingency planning which goes

through an additional Risk Challenge Board review. The risk management plan is included in all work documents. A manager and direct oversight sponsor are assigned to ensure subject matter and managerial oversight is afforded for each high risk work activity and they conduct their oversight in the field. Workers are briefed on the risk and post job critiques after the work is completed are held for lessons learned. In response to Consultant McWhorter's inquiry Mr. Bryant reported when the units are online very high risk activities are very infrequent with two having been performed to date in 2020 both associated with the rod control system. High risk activities are performed approximately every two weeks typically revolving around nuclear safety and sometimes industrial safety.

Mr. Bryant reviewed implementation of risk management strategies and reported the primary supervisor and the workers involved review the risk level and mitigation actions during the pre-job briefing and ensure all work documentation has the risk level documented. A summary list is included of all high and very high-risk activities scheduled during the next 24 hours in the published daily schedule. The responsible work groups then report out on the risk management plan for any high or very high-risk activity scheduled for the day at the routine daily plant meeting. The Risk Challenge Board is convened before starting work and the Board verifies that the conditions have not changed sufficiently that the risk assessment is now inadequate. Mr. Bryant reported procedures in the Site Standards handbook requires validation that there are no changes in the conditions encountered in the field.

In concluding his presentation Mr. Bryant stated the most important activity to be performed after the work is complete relates to learning and adapting. For low and medium risk activities, any risk challenges are documented as is anything learned in completing the work order. Post-job critiques are conducted upon the completion of high or very-high risk evolutions and high and very-high risk evolutions are reviewed during a T+1 meeting. He reported the final step is to identify successes and opportunities to continue to learn and grow as an organization.

In response to Consultant Wardell's query Mr. Bryant confirmed the first line workers understand the integrated risk assessment process and for high or very high risk activities the first line supervisors and craft are brought into the risk discussion meetings to obtain a better understanding of the mitigations and protections being afforded and to allow them to serve as subject matter experts. Mr. Bryant and Mr. Baldwin confirmed the Phoenix/Safety Monitor risk determination program is used as an online risk monitoring tool as part of the work planning and work control processes and serves as an entry point for elevating the risk significance of a job if something were to cause the online risk metric to enter Yellow status and they confirmed a numerical probabilistic risk assessment does play a role in the risk assessment process. All components are also classified with respect to risk significance with high risk components specifically identified. Mr. Bryant confirmed Dr. Budnitz' observation that the equipment outage management plans used when the plant is operating establish a time by which the equipment must be returned to service and this is based upon a probabilistic risk assessment and Mr. Bryan reported when 50% of the scheduled time is reached the mitigation piece of the

integrated risk assessment process comes into play and the primary mitigation action is to then activate the Outage Command Center. In response to Dr. Budnitz' inquiry Mr. Baldwin stated that in the development of the Integrated Risk Assessment Process DCPP reviewed similar processes used by other nuclear power plants but he could not say how widespread the implementation of similar programs was but in the nuclear industry good practices spread very rapidly and are shared among plants. Mr. Wardell and Dr. Budnitz reviewed a meeting of the Plant Health Committee they attended during a previous fact-finding visit during which washing of the insulators on the 500kV lines was reviewed in a process very similar to that described by Mr. Bryant during his presentation with two groups participating, one being the team that was going to perform the work and the other the team that had done the risk analysis. Dr. Lam commented he previously attending a meeting of the Risk Challenge Board and his impression at that time was it represented a good practice.

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

Mr. Rathie reported the next public meeting of the Committee is scheduled to be held on October 22-23, 2020, and will likely again be conducted using Zoom and a future meeting was scheduled during this meeting for October 19-20, 2021. In response to Dr. Budnitz' question, Mr. Garcia confirmed the 1R22 refueling outage is scheduled to commence on October 4, 2020, and is scheduled to occupy 39 days and Dr. Budnitz and Mr. McWhorter have a fact-finding scheduled for November 9-10, 2020. Mr. Garcia confirmed DCPP will be able to support the fact-finding. Mr. McWhorter reviewed possible agenda items for the October 22-23, 2020 public meeting including an update on the status of decommissioning planning, the request for proposals for the new spent fuel casks, the cause and corrective actions for the actions on the Rod Control System, the latest activities of the Diablo Canyon Decommissioning Engagement Panel, and a topic concerning the Committee's consideration of a recommendation regarding transfer of SNF. Mr. Wardell reported a schedule was provided for the July 21-22, 2020 fact-finding with Dr. Peterson and he briefly reviewed the schedule for completing the Committee's 30th Annual Report on the Safety of Diablo Canyon Nuclear Power Plant Operations. Dr. Budnitz commented the Emergency Preparedness organization has a drill rehearsal scheduled for July 22, 2020, and he inquired whether the drill might be cancelled due the postponement of the evaluated emergency exercise because of the coronavirus pandemic. Dr. Budnitz reported with Consultant McWhorter he is planning to attend the fourth day of the Nuclear Safety Oversight Committee's (NSOC) visit when the NSOC is expected to report on the results of its visit to senior DCPP management. Dr. Budnitz observed that the evaluations by the NSOC, like those of the Institute of Nuclear Power Operators (INPO), are confidential and the DCISC in order to be afforded the opportunity to attend and receive information is committed to maintaining what it learns in these meetings in confidence. Dr. Budnitz observed the DCISC's observation of these meetings is very helpful as some of the reviews are not very different from the scope of the reviews conducted by the DCISC.

Drs. Budnitz and Peterson commented the conduct of this meeting remotely using Zoom technology has worked very well and the meeting has been productive and was conducted effectively within those limitations. Mr. Rathie expressed his appreciation to Messrs. Baldwin and Garcia and to the PG&E presenters for their cooperation and assistance in making the meeting productive and to Mr. Bob Lloyd and Technician Travis of AGP Video for facilitating the webinar. On behalf of the Committee Dr. Lam expressed thanks to PG&E's Director Thomas Baldwin and Manager Hector Garcia and to AGP for their help and assistance with this public meeting.

XXXII ADJOURNMENT OF NINETY-SIXTH PUBLIC MEETING

There being no further business the ninety-sixth public meeting of the Diablo Canyon Independent Safety Committee was then adjourned by its Chair, Dr. Peter Lam, at 2:27 P.M.