

An aerial photograph of the Diablo Canyon nuclear power plant. The plant's containment domes and various buildings are visible on a coastal plain. To the left, the ocean features rocky shorelines and waves crashing against a breakwater. In the background, rolling green hills lead up to rugged, brown mountains under a clear sky.

Diablo Canyon
Independent
Safety Committee

Public Meeting
September 28 and 29, 2022

Avila Lighthouse Suites





Peter Lam, Member, and Richard McWhorter, Consultant

- 1. Nuclear Safety Oversight Committee Exit Meeting**
- 2. Observe Plant Health Committee Meeting**
- 3. Annual Radioactive Effluent Release and Radiological Environmental Operating Reports**
- 4. Health of 4kV Electrical Systems and Tour**
- 5. Containment Ventilation and Hydrogen Mitigation Systems**
- 6. Meet with Nuclear Regulatory Commission (NRC) Senior Resident Inspector**
- 7. Performance Improvement Program**
- 8. Containment Liner Inspections**
- 9. Radiation Monitoring Systems**
- 10. Meet with DCCP Officer**
- 11. Access to Technical Information for the New Spent Fuel Storage System**
- 12. Industry Efforts to Evaluate the Radiological Consequences of a Release of Radionuclides from a Spent Fuel Storage Cask**
- 13. Response to State Government Interest in Extending Power Operations Beyond 2025**



Nuclear Safety Oversight Committee Exit Meeting (Remote)

- **NSOC is an External Committee of Four Executive-Level Industry Peers**
- **Advises the Chief Nuclear Officer on Safety Policy and Provides an Independent Perspective on Plant Performance**
- **Typically Meets and Visits DCPP Three Times per Year**
- **Remotely Observed Exit Briefing on July 14**
- **Conclusion – The DCPP NSOC appeared to be thorough and comprehensive in their evaluations and candid in their reports.**



Observe Plant Health Committee Meeting (Remote)

- **PHC Routinely Meets to Review Status of Equipment Issues and Action Plans**
- **Agenda:**
 - **Operations Tactical List**
(Operator Work Arounds, Defeated Annunciators, Ops Priority Repairs, Control Board Notifications, Etc.)
 - **Top Ten Equipment Reliability Issues List**
- **Conclusion – The Plant Health Committee appeared effective in bringing together the appropriate people to address plant system and component problems and to help maintain systems and components in good health.**



Annual Radioactive Effluent Report

- 2021 Radioactive Effluents Released Were Small Fractions of Limits
 - Liquid 0.000125 millirem 0.042% of TS
 - Gaseous 0.00186 millirem 0.019% of TS
- Zero Direct Radiation Exposure Offsite

Annual Radiological Environmental Operating Report

- Radiation Measurements at 32 Local Locations – No Effects Upon the Local Environs
- Small Amounts of Tritium in Groundwater Being Monitored
- Cumulative Annual Radiation Dose to Public < 1 millirem

Conclusion: Programs effective, and During 2021, there were no abnormal releases of radioactivity nor were there any abnormal levels of radioactivity detected in the environment surrounding DCP



Health of 4kV Electrical Systems and Tour

- System Used to Supply Electrical Power for Operation of Vital and Non-Vital 4kV Electrical Equipment
- No Major Issues; Both Units' Health Rated as 'Green'
- Maintenance Rule Program Unavailability and Reliability Goals Being Met with Significant Margin
- No Major Issues with 4kV Breakers
- Toured Areas Housing Major 4kV Components on Unit 2
- Conclusion – DCCP's 4kV Electrical Systems were well-designed, rated as "Green" (Healthy), and in good condition.



4kV Vital Bus 2H



Spare 4kV Breaker



Containment Ventilation and Hydrogen Mitigation Systems

- System Used to Limit Containment Pressure and Temperature During Accident and Cool the Containment During Normal Operations
- Major Components are Five Containment Fan Cooler Units per Unit
- Tier 2 System in Generally Good Health
- One Portion of the System (CFCU 1–2) in Maintenance Rule (a)(1) Monitoring Status (Electrical Supply Issue)
- Hydrogen Mitigation Systems (Recombiners and Vents) in Good Health
- Conclusion – DCCP's Containment Ventilation and Hydrogen Mitigation Systems were in good health and operated properly.



Meet with NRC Senior Resident Inspector

- **Items Discussed Included:**
 - **Recent Inspection Findings**
 - **NRC Office of Inspector General's Report on the NRC's Oversight of the Auxiliary Feedwater System at DCP**
 - **The Possibility of DCP Continuing Operations Beyond 2025**



Performance Improvement Programs

- Reviewed Department Excellence Plan
 - Focus Items Included Event-Free Operations, Equipment Reliability, Leadership and Talent Development, and Continuous Improvement
- Staffing Currently at 8, Down from 16 About Four Years Ago
- Reviewed the Performance Improvement Status Summary
- Conclusion – DCCP's Performance Improvement Program was functioning well overall, and the Department Excellence Plan was well developed and appropriately focused.



Containment Liner Inspections

- **Test and Inspection Requirements – Concrete Structure, Steel Liner, Integrated Leak Rate Tests**
- **Unit 1 Liners Inspected in Fall of 2020. No Significant Issues.**
- **Unit 2 Liner Inspected in Spring 2021. No Significant Issues**
- **Detailed Reports Provided and Reviewed. Sound Inspection Methodology.**
- **Conclusion – Inspections of the Containment Liners on both units were properly performed and no issues affecting integrity were identified.**



Radiation Monitoring Systems

- System Used to Provide General Area and Process System Radioactivity Measurements and Alarms, as well as Automatic Line Isolations
- 101 Channels of Radiation Detectors and Associated Electronics of Diverse Manufacture and Age
- DCCP Focused on Maintaining and Improving the Reliability of the Existing RM Systems
- Tier 2 System in Acceptable Health, but Needing Improvement
- Several Portions of the System in Maintenance Rule (a)(1) Monitoring Status; Appropriate Corrective Actions Initiated
- Conclusion – DCCP’s Radiation Monitoring System was in acceptable health overall but needed further actions to address several portions of the system that were in Maintenance Rule category (a)(1).



Meet with DCPD Director

- **Maureen Zawalick, Vice President, Decommissioning and Technical Services**
- **Dr. Lam Discussed Items from the Fact-Finding Meeting and Other Subjects of Interest**



Access to Technical Information for the New Spent Fuel Storage System

- Follow-up Initiative from June DCISC Public Meeting
- DCCP Provided Overview of Licensing Information Currently Available in NRC Document System (ADAMS)
 - UFSAR
 - Certificates of Compliances
 - Amendments 1 and 2; Application for Amendment 3
- Conclusion – PG&E provided information to the DCISC about where it could locate publicly available technical details on the proposed new Spent Fuel Storage System from Orano.



Industry Efforts to Evaluate the Radiological Consequences of a Release of Radionuclides from a Spent Fuel Storage Cask

- Reviewed Previously in December 2017
- EPRI Study in Progress; Expected Issuance in March 2023
- Some Supporting Studies Completed
- Conclusion – An industry study to analyze the dose consequences for a hypothetical through-wall crack of a spent fuel storage container is expected to be issued in early 2023.



Response to State Government Interest in Extending Power Operations Beyond 2025

- Reviewed Timeline of State Government Actions
- Discussed Possible Paths Forward
- Conclusion – PG&E continues to work on decommissioning planning but has also started to plan for the possibility of continued operations at DCPD beyond 2025.



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Diablo Canyon Power Plant: State of the Plant Update

Dennis Petersen

Station Director

September 28, 2022



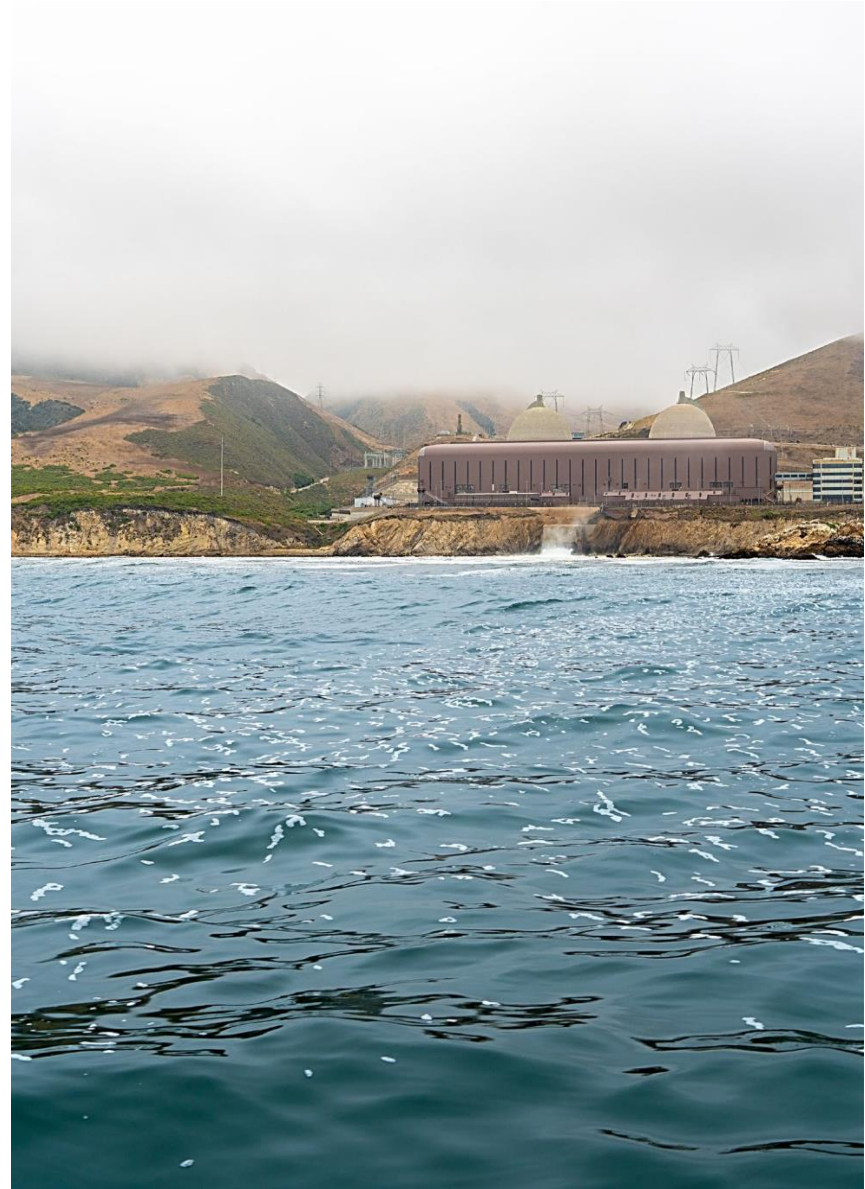
Station Update

Key Upcoming Activities



Plant Operation

- Units 1 & 2 are safely operating at 100% power with a Probabilistic Risk Assessment (PRA) of “Green”
- All NRC Performance Indicators (PIs) are Green



Station Update

Scheduled 2R23 Refueling Outage

- October – November 2022

Major 2R23 Scope

- Auxiliary Saltwater Pump 2-2 Motor and Pump Replacement
- Feedwater Heater inspection
- Travelling Screens 2-2, 2-4, and 2-6 overhaul
- Auxiliary Transformers 2-1 and 2-2 Isophase Bushing Inspections
- Startup Transformer 2-2 Power Factor Testing
- 12kV and 4kV Electrical Bus Preventive Maintenance
- Main Condenser Expansion Joint Replacements



Station Update

Diesel Generator (DG) Maintenance

- Once-per-cycle Preventive Maintenance Outage completed
- DG's 2-1, 2-2, 2-3

Organizational Changes

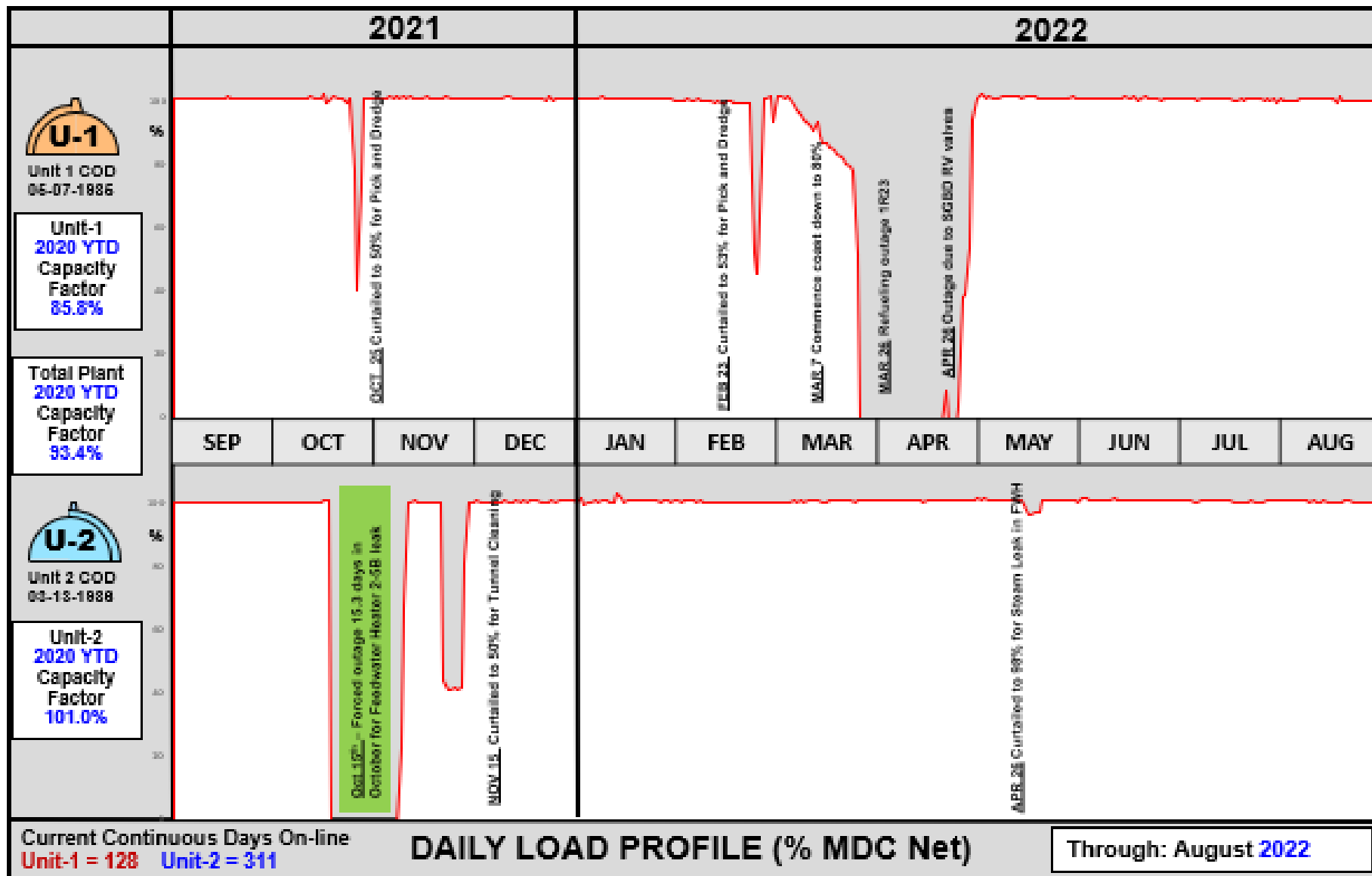
- Director of Strategic Initiatives L/R
- Director of Outages L/R
- Director of Projects L/R



Diablo Canyon Power Plant

Daily Load Profile: Past 12 Months

Daily Capacity Factor Power History Curves





Upcoming Station Activities

- NRC Emergency Preparedness and Performance Improvement Inspection: Exit October 13, 2022
- Unit 2 Refueling Outage: October – November 2022
- NRC Problem Identification and Resolution Inspection: November – December 2022
- Nuclear Safety Oversight Committee (NSOC) station visit: December 2022

Thank You

Dennis Petersen



DCPP Performance Based on NRC Performance Indicators

Russ Prentice
Director, Risk and Compliance
September 28, 2022



DCPP Performance Summary

June 2022 – September 2022

- This presentation covers approximately 4 months of NRC inspections involving ~2000 hours of inspection time
- DCPP remains in the highest performance category for all NRC Performance Indicators

NRC Performance Indicators

Unit 1	Unit 2	
G	G	Unplanned Scrams per 7000 Critical Hrs
G	G	Unplanned Power Changes per 7000 Critical Hrs
G	G	Unplanned Scrams with Complications
G	G	Safety System Functional Failures
G	G	Mitigating Systems Performance Index, Emergency AC Power System
G	G	Mitigating Systems Performance Index, High Pressure Injection System
G	G	Mitigating Systems Performance Index, Heat Removal System
G	G	Mitigating Systems Performance Index, Residual Heat Removal System
G	G	Mitigating Systems Performance Index, Cooling Water Systems
G	G	Reactor Coolant System Activity
G	G	Reactor Coolant System Leakage
G	G	Drill/Exercise Performance
G	G	ERO Drill Participation
G	G	Alert & Notification System
G	G	Occupational Exposure Control Effectiveness
G	G	RETS/ODCM Radiological Effluent

June 2022 – September 2022

- **There have been four violations of more than minor significance since the last DCISC update:**
 - **Green (Very Low safety significance) Non-Cited Violation (NCV) –**
The station did not provide adequate procedural guidance to control the tightening of Emergency Diesel Generator 2-3 fuel oil system bolts, resulting in a fuel oil leak
(No Cross-Cutting Aspect was assigned to this violation)
 - **Green (Very Low safety significance) Non-Cited Violation (NCV) –**
The station did not adequately relocate or secure items in the switchyard area in accordance with station procedures in preparation for expected higher than normal winds
(Cross-Cutting Aspect H.13, “Consistent Process”)
 - **Green (Very Low safety significance) Non-Cited Violation (NCV) –**
The station did not secure temporary polyethylene bottles staged in the Residual Heat Removal pump room in accordance with plant procedures
(No Cross-Cutting Aspect was assigned to this violation)

NRC Violations (Continued)

June 2022 – September 2022

- **Green (Very Low safety significance) Non-Cited Violation (NCV) –**
The station did not include certain equipment in the 480V switchgear rooms in the station's equipment qualification program
(No Cross-Cutting Aspect was assigned to this violation)

NRC Violations – Cross-Cutting Aspects

Rolling 4-Quarter Cross-Cutting Aspect Performance

NRC Cross-Cutting Issue Summary [DCPP]																																	
(Rolling 4 Quarters)																																	
Quarter Ending: 22Q3																																	
Prior Assessment Theme: Green			Current Assessment Theme: Green				Upcoming Assessment																										
Areas	5 HU Findings						0 Problem Identification & Resolution Findings		0 Safety Conscious																								
Traits	Leadership Safety Values & Actions	Personal Accountability	Work Processes	Continuous Learning	Effective Safety Communication	Questioning Attitude	Decision Making	PI&R	Continuous Learning	Environment for Raising Concerns																							
Aspects	Resources H.1	Teamwork H.4	Work Management H.5	Training H.9	Bases for Decisions H.10	Challenge the Unknown H.11	Consistent Process H.13	Identification P.1	Operating Experience P.5	SCWE Policy S.1																							
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	Field Presence H.2	Summary of Findings **			Design Margins H.6	Avoid Complacency H.12	Conservative Bias H.14	Evaluation P.2	Self Assessment P.6	Alternative Process S.2																							
	0 0 0 0 0	<table><tr><td></td><td>N,L,S</td><td>CCA</td><td>NR,SR</td></tr><tr><td>22Q3</td><td>0</td><td>0</td><td>0</td></tr><tr><td>22Q2</td><td>3</td><td>1</td><td>3</td></tr><tr><td>22Q1</td><td>3</td><td>2</td><td>3</td></tr><tr><td>21Q4</td><td>3</td><td>2</td><td>2</td></tr><tr><td>Total</td><td>9</td><td>5</td><td>8</td></tr></table>				N,L,S	CCA	NR,SR	22Q3	0	0	0	22Q2	3	1	3	22Q1	3	2	3	21Q4	3	2	2	Total	9	5	8	0 1 0 0 1	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
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22Q1	3	2	3																														
21Q4	3	2	2																														
Total	9	5	8																														
	Change Management H.3	Legend			Documentation H.7	Resolution P.3		Free Flow of Information S.3																									
	2 0 0 0 2	<table><tr><td>Aspect</td><td>HU Total</td><td>PIR Total</td><td>SCWE</td></tr><tr><td>Green</td><td>1 - 2</td><td>0 - 6</td><td>0</td></tr><tr><td>White</td><td>3 - 4</td><td>11 - 15</td><td>7 - 9</td></tr><tr><td>Yellow</td><td>5</td><td>16 - 19</td><td>10 - 11</td></tr><tr><td>Red</td><td>>5</td><td>>19</td><td>>11</td></tr><tr><td></td><td></td><td></td><td>>0</td></tr></table>			Aspect	HU Total	PIR Total	SCWE	Green	1 - 2	0 - 6	0	White	3 - 4	11 - 15	7 - 9	Yellow	5	16 - 19	10 - 11	Red	>5	>19	>11				>0	0 0 0 0 0	0 0 0 0 0		0 0 0 0 0	
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	Traditional Violations	NRC/SR Traditional Violations			Procedure Adherence H.8	Trending P.4																											
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** Based on Published NRC Inspection Reports																																	



Licensee Event Reports

June 2022 – September 2022

- No Licensee Event Reports have been submitted since the last DCISC meeting



DCPP Performance Summary

June 2022 – September 2022

- DCPP remains in the highest performance category for all NRC Performance Indicators
- Two Inspection Reports were issued by the NRC during the June 2022 and September 2022 timeframe:
 - Design Basis Assurance Inspection Report (2022-011, 08/09/2022)
 - 2nd Quarter 2022 Integrated Inspection Report (2022-002, 08/10/2022)



Status of License Amendment Requests

Generic Industry License Amendment Request approved for Diablo Canyon:

- Amendments 241 and 242 were issued on September 6, 2022, to the Unit 1 and Unit 2 Operating Licenses, which revised Technical Specifications (TS) to adopt a generically approved industry TS update, which revised the surveillance frequencies for steam generator tube inspections

Thank you

Russ Prentice





Per F. Peterson, Member, and R. Ferman Wardell, Consultant

1. Greater Than Class C Waste Storage Plans
2. License Renewal Status
3. Emergency Preparedness During Decommissioning
4. Feedwater Heater Tube Failure Follow-up
5. Tsunami Warning Response
6. Meet with NRC Senior Resident Inspector
7. NRC Resident Inspectors' Access to PG&E Computer System
8. Observe Plant Health Committee Meeting
9. Equipment Reliability Update
10. Condensate Polisher Resin Issue
11. Meet with DCPD Officer
12. Large Motors Program
13. Radiation Surveys of the ISFSI
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Greater Than Class C Radioactive Waste Storage Plans

- **High Level Waste (Spent Nuclear Fuel)**
- **Transuranic Waste (Atomic Numbers Greater Than Uranium [92])**
- **Low Level Radioactive Waste**
 - **Class A**
 - **Class B**
 - **Class C**
 - **Greater Than Class C (GTCC)**
- **DCPP GTCC: Activated Steel Inside Reactor Vessel**
- **Stored in Spent Fuel-Type Casks in Special Building Beyond ISFSI**
- **Conclusion: GTCC Waste Plans Satisfactory**



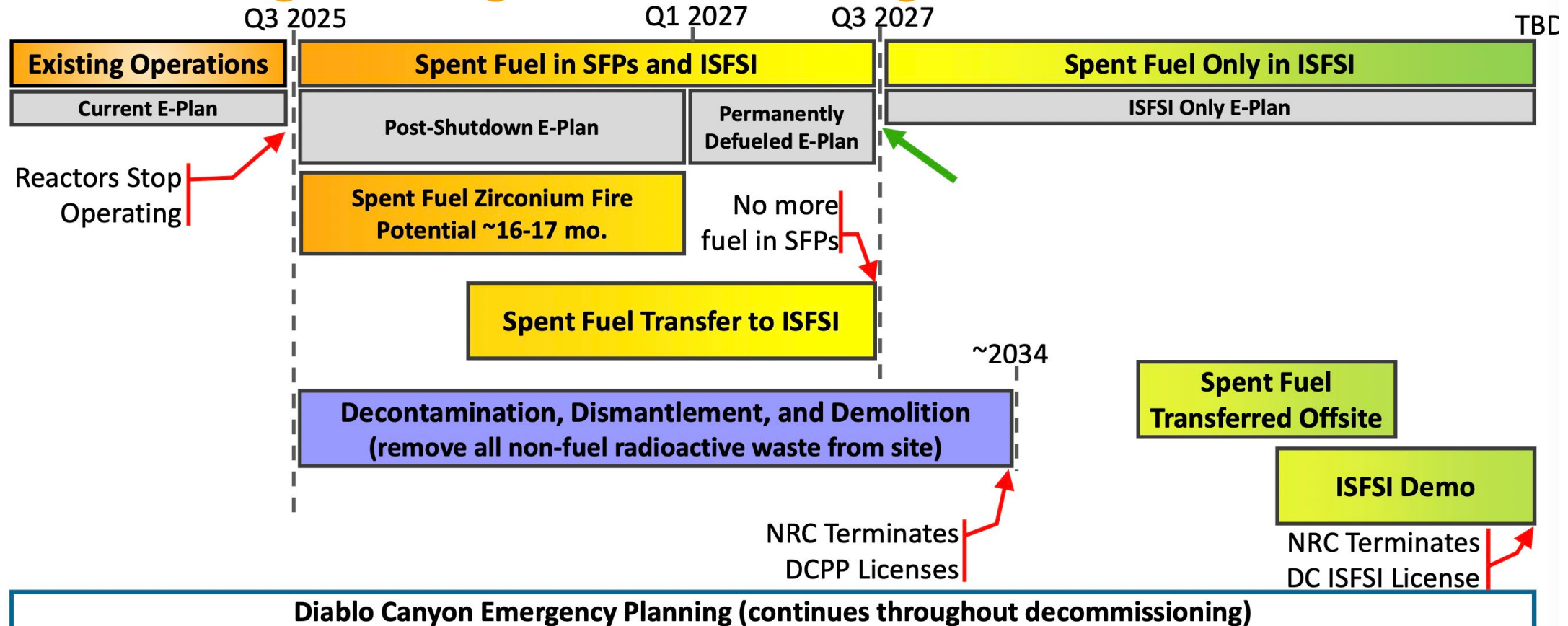
DCPP License Extension Update

- **Governor Newsome Announced Need for DCPP**
- **PG&E Exploring Actions for Option for Continued Operations**
- **Potential State Legislation**
- **PG&E to Apply to DOE Civil Nuclear Credit Program**
- **PG&E to Initiate NRC License Extension Approval**



Emergency Preparedness During Decommissioning

What changes during decommissioning?





Emergency Preparedness During Decommissioning, cont' d.

Phase 1: Post-Shutdown E-Plan

First ~16–17 months after reactor shutdown: Spent Fuel Pool Zirconium Fire Risk

Phase 2: Permanently Defueled E-Plan

First ~16–17 months all fuel out of the SFPs: No Zirconium Fire Risk

Phase 3: ISFSI-Only E-Plan

All fuel is at the ISFSI

- No need for multiple dedicated facilities: TSC, OSC, EOF, JIC
- One command center: Control Room
- Offsite plans are no longer required



Feedwater Heater Tube Failure Followup

- **During startup from Outage 2R22 on 10/15/21, FWH 2–5B Tube Failure**
- **Unit 2 Shut Down for Repairs**
- **Repairs Made & Unit 2 Has Operated Normally**
- **Root Cause Evaluation: Fatigue Fracture of the FWH Tubes**
- **Outage Inspections on All FWHs for Extent of Condition**
- **Unit 1 Acceptable – Outage 1R23**
- **Unit 2 Inspections in Outage 2R23 (October 2022)**
- **Conclusion: Corrective Actions Satisfactory**



Tsunami Warning Response

- **NOAA NWS Responsible for Tsunami Warnings**
- **Warnings, Advisories, Watches, Information Statements**
- **Warning Is Only One Requiring DCPD Response/Actions**
- **Tsunami arrives in a series of low water (drawdown) and high water (run-up) periods.**
- **DCPD Casualty Procedure CP M-5, “Response to Tsunami Warning,”**
- **DCPD Design Basis Tsunami: Wave Crest Elevation +32.0 ft. MSL**
- **DCPD 85 ft. Above MSL, Except ASW Pumps in Watertight Rooms**
- **Conclusion: DCPD Procedure Is Satisfactory**



Meet with NRC Senior Resident Inspector (Remote)

- **Discussion:**
 - **DCISC Fact-finding Agenda**
 - **Emergency Diesel Generator Issues & Testing Observation**
 - **License Extension**
- **Conclusion: Meetings with NRC Are Beneficial**



NRC Resident Inspectors' Access to PG&E Computer System

NRC Access:

- **DCPP Local Area Network**
- **SAP Process Network (Corrective Action Program)**
- **Procedure Navigation System**
- **Plant Data Program**
- **Plan of the Day**
- **DCPP Email System**
- **Etc.**
- **Conclusion: Good Standard Industry Practice**



Observe Plant Health Committee Meeting

- **PHC Routinely Meets to Review Status of Equipment Issues and Action Plans**
- **Agenda:**
 - **Individual Systems/Component Reviews**
 - **Action Plans for Recovering System/Component Health**
 - **Operations Tactical List**
 - **Top Ten Equipment Reliability Issues List**
- **Conclusion – The Plant Health Committee appeared effective to maintain systems and components in good health.**



Equipment Reliability (ER) Update

- **Equipment Reliability Performance Index:**
 - **Unit 1 – Yellow**
 - **Condenser Saltwater Inleakage – Reduced Operations**
 - **Two Feedwater Heater Leaks**
 - **Valve Malfunction**
 - **Unit 2 – Green**
 - **Past Issues Resolved (Generator Vibration & FWH Tube Failures)**
- **New Secondary System Reliability Action Plan**
- **2022 Equipment Reliability Excellence Plan**
- **Conclusion: DCCP Taking Appropriate Actions to Improve ER**



Condensate Polisher Resin Performance

- **Condensate: Water Leaving Condenser for Feedwater**
- **Condensate Polishing: Removing Contaminants from Condensate**
- **Polishing: Deep Bed Resin Ion Exchange Demineralizers**
- **Full-Flow Polishing: 31,000 Gallons/Minute**
- **Issue: Resins Were Fouled with Iron During Startup & Releasing Sulfates**
- **Resin Manufacturer: Hot Scrubs & Air Rinses**
- **Conclusion: Resin Problems Resolved Satisfactorily**



Meeting with DCCP Officer

- **Met with Adam Peck, Site Vice-President**
- **Discussed:**
 - **Fact-finding Agenda**
 - **Other Items of Mutual Interest**
- **Conclusion: Regular Meetings with DCCP Officers Are Mutually Beneficial**



Large Motors Program

- Large Motors: 4kV, 12kV, 250 Horsepower & Larger
- Program Managed By Tactical (formerly: Component) Engineering
- Program Health: Green
- 2016: Large Motor Long-Range Plan for Replacements/Overhauls
- Plan Partially Suspended for 2025 Cessation of Operation
- Plan Will Need to Be Revisited for Continued Operation Past 2025
- DCISC Will Monitor DCPD Actions on Large Motors



Radiation Surveys Independent Spent Fuel Storage Installation

- DCISC FFT Toured ISFSI with Radiation Protection Personnel
- Equipped with Dosimeters & Portable Radiation Detectors
 - Gamma Radiation Detector
 - Neutron Radiation Detector
- Gamma: Inside Fence: 0.4 – 2.5 millirem/hour
- Gamma Outside Fence: 18–120 microroentgens/hour
- Neutron: little or none
- DCISC FFT Received No Measurable Radiation Dose
- Conclusion: ISFSI Radiation Levels Are Very Low (Cont' d.)



Radiation Surveys In ISFSI, cont' d.





Observe Receipt & Inspection of New Nuclear Fuel

- **DCISC FFT Dressed in Protective Clothing & Received Radiation Briefing**
- **Equipped with Dosimeters & Accompanied by Radiation Protection Personnel**
- **New Nuclear Fuel for Outage 2R23, Beginning October 16, 2022**
- **New Fuel Fabricated by Westinghouse in Columbia, SC**
- **Fuel Shipped in Metal Strongback Containers – Two Assemblies Each**
- **Containers Lifted By Crane & Container Doors Opened**
- **Fuel Inspected as Removed, Then Stored in New Fuel Vaults**
- **Additional Detailed Inspections, Then Sent to Spent Fuel Pool**
- **Conclusion: Fuel Receipt Professionally and Carefully Performed**



New Fuel Receipt and Inspection, cont' d.





Per F. Peterson, Member, and R. Ferman Wardell, Consultant

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Robert J. Budnitz, Member, and R. Ferman Wardell, Consultant

- 1. Probabilistic Risk Assessment (PRA) Program Review**
- 2. Safety Culture Update**
- 3. Observe All Hands Meeting with PG&E Chief Executive Officer and Board of Directors**
- 4. 2R23 Outage Safety Plan**
- 5. Long-Term Seismic Program Update**
- 6. Core Exit Thermocouple System Update**
- 7. Cyber Security Update**
- 8. Meet with Adam Peck, Site Vice-President**
- 9. DCPP License Extension Update**
- 10. Observe Evaluated Emergency Preparedness Exercise**



Overall Probabilistic Risk Assessment (PRA) Program Review

- 1. Status of the DCCP PRA: Maintaining & Updating**
- 2. Support for License Renewal**
- 3. Support for Plant Safety Decision Making**
- 4. Outage & Out-of-Service Safety Management**
- 5. Conclusion: DCCP Use of PRA Continues Effectively**
- 6. PRA Group Does Excellent Work**



Safety Culture Update

- **Safety Culture:**
 - **Individual Commitment to Safety**
 - **Personal Accountability**
 - **Questioning Attitude**
 - **Effective Safety Communication**
 - **Management's Commitment:**
 - **Safety Leadership**
 - **Safety Values, Actions & Decision-making**
 - **Respectful work environment**
- **Safety Conscious Work Envir: Employees Willing to Raise Safety Concerns**
- **DCPP Nuclear Safety Culture Monitoring Panel & Employee Surveys**
- **Conclusion: DCPP Safety Culture is Healthy**



Observe All Hands Meeting with PG&E Chief Executive Officer and Board of Directors

- **Opportunity for Five More Years Continued DCPD Operation**
- **Appreciation for DCPD's Excellent Operating Record**
- **A “One Team” Culture for All Areas of PG&E**
- **A Stronger Customer Focus**
- **Application of DCPD Processes to Other Areas of PG&E**
- **A Question-and-Answer Session for Attendees**

Conclusion: All Hands Meeting Was Beneficial for All Involved



2R23 Outage Safety Plan

- **Refueling Outage 2R23: October 16 – November 20, 2002**
- **Routine Review for DCISC**
- **Plan Ensures Defense-in-Depth of Key Safety Functions During Shutdown Activities**
- **Classifies Shutdown Condition Risk: Green, Yellow, Orange or Red**
- **Plan Contained Six Planned Yellow and No Orange or Red**
- **Conclusion – 2R23 Outage Safety Plan and Safety Schedule Appeared Comprehensive and Effective**



Long Term Seismic Program Update

- **Overview & Background – Four Technical Areas:**
 - **Understanding of the Seismic Hazard**
 - **Seismic Ground Motion & In-structure Propagation**
 - **Seismic Fragility of Components & Structures**
 - **Seismic Plant-response**
- **Fault Displacement Modeling**
- **Ground Motion Model Development**
- **Precariously Balanced Rocks**
- **Siting the GTCC Waste Building**
- **Conclusion: LTSP Is Excellent & Valuable**



Core Exit Thermocouple Update

The Core Exit (Incore) Thermocouple System monitors the fluid exiting the core for subcooling, saturation, or superheat indication of a potentially core-damaging condition:

- Incore Thermocouples
 - Penetration Seals
 - Monitoring Equipment
-
- System Health: Green with Few Issues



Cyber Security Update

- **Protect Critical Digital Assets Against Cyber Attack**
 - **Safety-related and Important-to-Safety Functions**
 - **Security Functions**
 - **Emergency Preparedness Functions, & Off-site Communications**
 - **Support Systems & Equipment for the Above Functions**
- **Critical Digital Assets (CDAs) Have No Direct Internet Connection**
- **CDAs Triple-Isolated from Outside**
- **Conclusion: DCCP Cyber Security Appears Highly Effective**



Meet with DCPP Officer

- **Met with Adam Peck, Site Vice-President**
- **Discussed:**
 - **Fact-finding Agenda**
 - **Other Items of Mutual Interest**
- **Conclusion: Regular Meetings with DCPP Officers Are Mutually Beneficial**

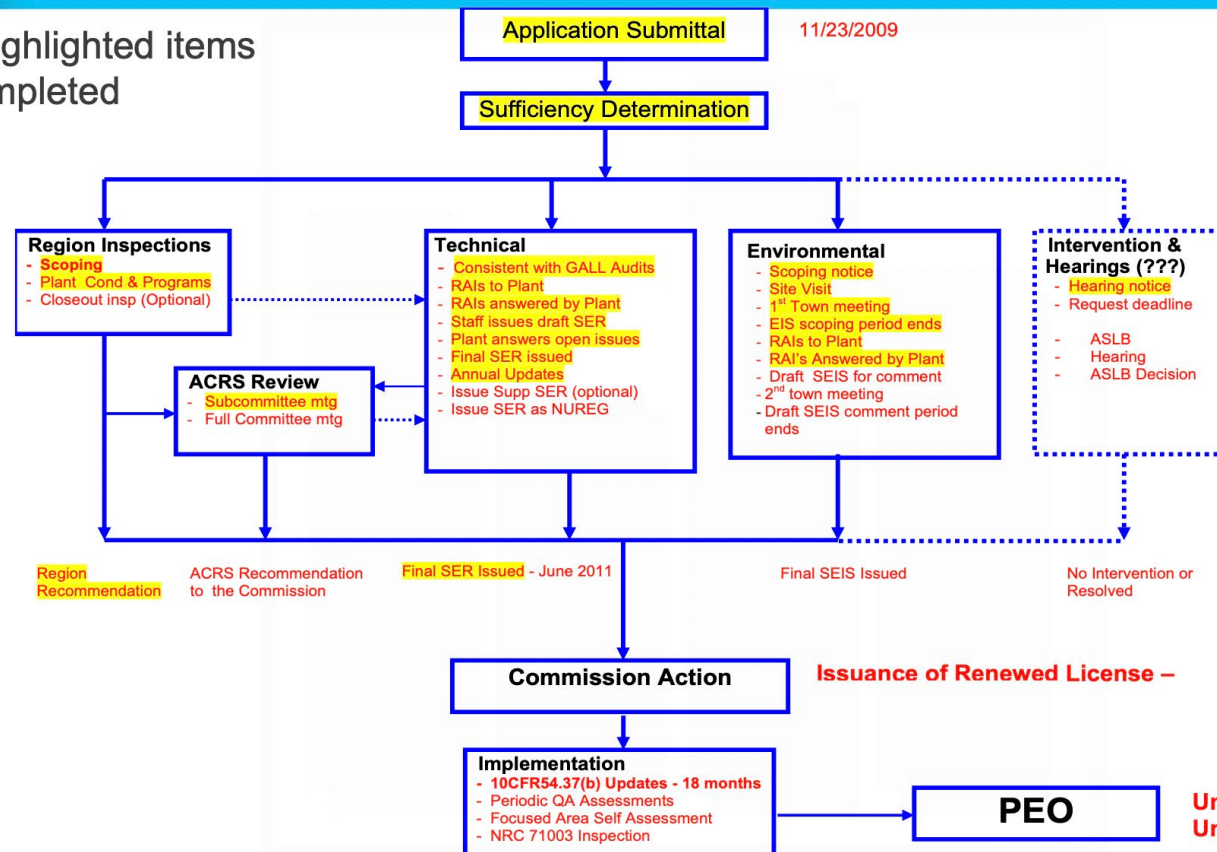


DCPP License Extension Update



DCPP License Renewal NRC Review Progress

Yellow highlighted items were completed





DCPP Life Extension Update cont' d.

The following steps would likely follow:

- **Submit Civil Nuclear Credit Program Application to Department of Energy**
- **Reactivation of NRC License Renewal Review (which normally adds 20 additional years to the plant operating license)**
- **NRC Process Almost Approved in 2016, Until Stopped By DCPP**
- **DCISC Will Be Closely Involved with This Process**



Observe September 14, 2022 Emergency Preparedness Exercise

Accident Scenario:

0755 – Units 1 & 2 at 100% power. Some Pumps Out of Service

0815 – Fuel Defect Occurs. (Loss of Fuel Clad Barrier)

0824 – ATWS Occurs. Operators Trip Reactor Manually

0853 – Source Range Nuclear Instrument Fail

0910 – Loss of Vital 4kV Power. No Safety Systems.

1020 – Steam Generator Tube Rupture (Loss of RCS Barrier)

1022 – Emergency Diesel Generator Fails to Start

1101 – Steam Line Break Occurs. (Loss of Containment Barrier)

1125 – Simulated Radiation Release:

- i. Radiation Calculations
- ii. Field Monitoring Teams
- iii. Protective Action Recommendations



Observe September 14, 2022 Emergency Preparedness Exercise, cont' d.

- Emergency Operations Facility (EOF) Activates On Time
- Joint Information Center (JIC) Activates On Time
- SLO County Activates On Time
- Critiques Begin After Termination
- DCISC FFT in Control Room (Simulator), EOF & JIC
- Conclusion: Exercise Effectively Planned & Implemented
- Evaluated (By NRC) Exercise



Robert J. Budnitz, Member, and R. Ferman Wardell, Consultant

- 1. Probabilistic Risk Assessment (PRA) Program Review**
- 2. Safety Culture Update**
- 3. Observe All Hands Meeting with PG&E Chief Executive Officer and Board of Directors**
- 4. 2R23 Outage Safety Plan**
- 5. Long-Term Seismic Program Update**
- 6. Core Exit Thermocouple System Update**
- 7. Cyber Security Update**
- 8. Meet with Adam Peck, Site Vice-President**
- 9. DCPP License Extension Update**
- 10. Observe Evaluated Emergency Preparedness Exercise**

DCPP Potential Continued Operations Overview

September 28, 2022

Tom Jones, Senior Director,
Regulatory, Environmental, &
Repurposing

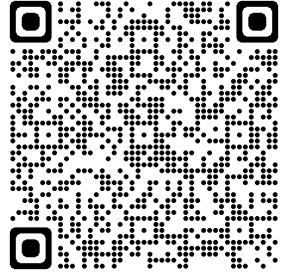


Background

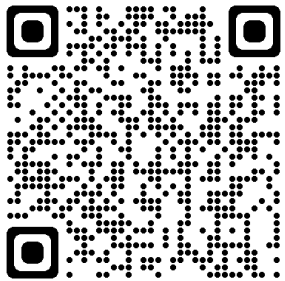
- Operating licenses DPR-80 and DPR-82
- Two units: generate 3,411 MWt each
 - 9% of CA's energy
 - Approx. 20% of CA GHG free
- Current operating licenses expire:
 - Unit 1: November 2024
 - Unit 2: August 2025



Background



- **Jun. 29: State Assembly Bill 180 passed to provide the Department of Water Resources funding to contract with utilities to preserve the option to keep retiring plants open**
 - Governor signed into law on Jun 30



- **Sep. 1: State Senate Bill (SB) 846 passed directing PG&E to take all necessary actions to preserve the option to extend operations to Oct 2029 (Unit 1) and Oct 2030 (Unit 2)**
 - Governor signed into law on Sep 2



Immediate Actions Needed

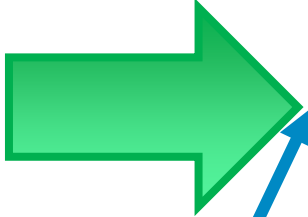
Why is Action Needed Now? The following critical activities require action in 2022 to operate DCPD beyond 2024 (Unit 1) and 2025 (Unit 2)

- 1. Fuel Purchasing:** Two-year lead time - currently no fuel for Unit 1 in 2024
- 2. Spent Nuclear Fuel Storage:** Two-year lead time to contract, manufacture, transport, and load canisters to support continued core reloads
- 3. Regulatory Processes:** Initiate complex federal and state applications for permits and funding – including US Dept. of Energy (DOE) grant application process
- 4. Project Team:** Restart license renewal (LR) application preparation, inspection program development, and implementation of LR NRC commitments as directed by SB 846

Concurrent Paths Due to California Energy Policy Changes

1. DCPD Retirement 2024/2025

- Continue key decommissioning planning to secure items already in progress
 - Diablo Canyon Decommissioning Engagement Panel
 - San Luis Obispo County: Decommissioning development planning
 - Nuclear Regulatory Commission (NRC): Decommissioning license actions
 - CA Public Utilities Commission: Nuclear Decommissioning Cost Triennial Proceedings
 - Diablo Canyon land activities



SB 846
Enacted
(Sep 2, 2022)

2. DCPD Continued Operations

- Immediately re-start DCPD LR efforts
- Conduct lifecycle evaluations
- Evaluate employee retention



NRC License Renewal Process

- **NRC Governing Laws**

- Atomic Energy Act (safety)
- National Environmental Policy Act (NEPA; environmental)

- **NRC License Renewal Process**

Fundamental premise of LR is the plant's current licensing basis provides reasonable assurance of the protection of public health and safety

- Safety review
 - Focus is on the effects of aging of components and structures
 - NRC review determines whether aging effects will be effectively managed
- Environmental review (NEPA)
 - Considers, analyzes, and discloses environmental impacts of continued plant operation for up to an additional 20 years
 - NRC review determines if the environmental impacts of LR are so great that license renewal would be unreasonable



NRC License Renewal Process

• Big Picture

- Looks at system, structure, and component health (ensuring components will function as designed)
- Assigns programs to monitor aging, not prevent aging
 - e.g., periodically inspect inside and outside of piping

• Completed 80%-90% of NRC review process for DCP

- Application submitted in 2009; annual updates submitted 2010-2016
- Application withdrawn in 2018

• Path Ahead

- Align with NRC on appropriate and expeditious regulatory path for LR process



Seismic Considerations

- **Current DCCP operations: Seismic studies and evaluations are on-going**
 - PG&E maintains a Long-Term Seismic Program (LTSP) which includes continuous evaluation and monitoring of seismic studies and events by the PG&E Geosciences Department (includes consultation with industry experts and academia)
 - PG&E has annual meetings with the CPUC's Independent Peer Review Panel (IPRP), including presentation of continued activities of the LTSP
- **DCCP LR: No new seismic studies required for NRC**
 - Fundamental premise of LR is the plant current licensing basis provides reasonable assurance of the protection of public health and safety – LTSP will continue if license is extended
 - Post-Fukushima, PG&E conducted extensive, peer-reviewed geotechnical investigations in the region to characterize the seismic conditions with state-of-the-art equipment
 - NRC determined that no plant systems, structures, and components important to safety were in need of updating to protect against earthquakes
- **SB 846 requires the DWR loan agreement to include, among other things:**
 - “(13) A covenant that the operator shall conduct an updated seismic assessment.”

DCISC Considerations in SB-846

- **DCISC continues into extended operations** (Public Utilities Code (PUC) section 712.1)
 - DCISC shall cease operations no sooner than when the NRC operating licenses cease and when all spent nuclear fuel has been moved to the DC ISFSI
- **Specifies additional DCISC roles** (PUC section 712.8(c)(2)(B))
 - Consult with and incorporate into its assessments and recommendations the Independent Peer Review Panel
 - Transmit annually its findings and recommendations for improved safety to the Legislature, Governor, CPUC, Energy Commission, NRC, and PG&E
 - DCISC annual reports will inform the CPUC's decision on DCCP continued operations (in particular, findings on “seismic safety or issues of deferred maintenance”)



Key Take-aways

- **SB 846 directs PG&E to take all necessary actions to preserve the option to extend operations for five additional years**
- **PG&E submitted an application to the US DOE on Sep. 2 requesting grant funds**
- **PG&E is pursuing concurrent work paths**
- **DCPP seismic safety will continue to be maintained**
- **DCISC will continue into extended operations with additional roles**

Questions?

Tom Jones

Tom.Jones@pge.com





The NRC and Diablo Canyon

Nuclear Regulatory Commission Presentation
to the Diablo Canyon Independent
Safety Committee

Mahdi Hayes

Senior Resident Inspector,
Diablo Canyon Power Plant
September 29, 2022

Agenda



Overview of the NRC

Overview of the resident inspector program

Overview of the regulatory process

Covid Impacts on the Inspection Process

Comments and questions

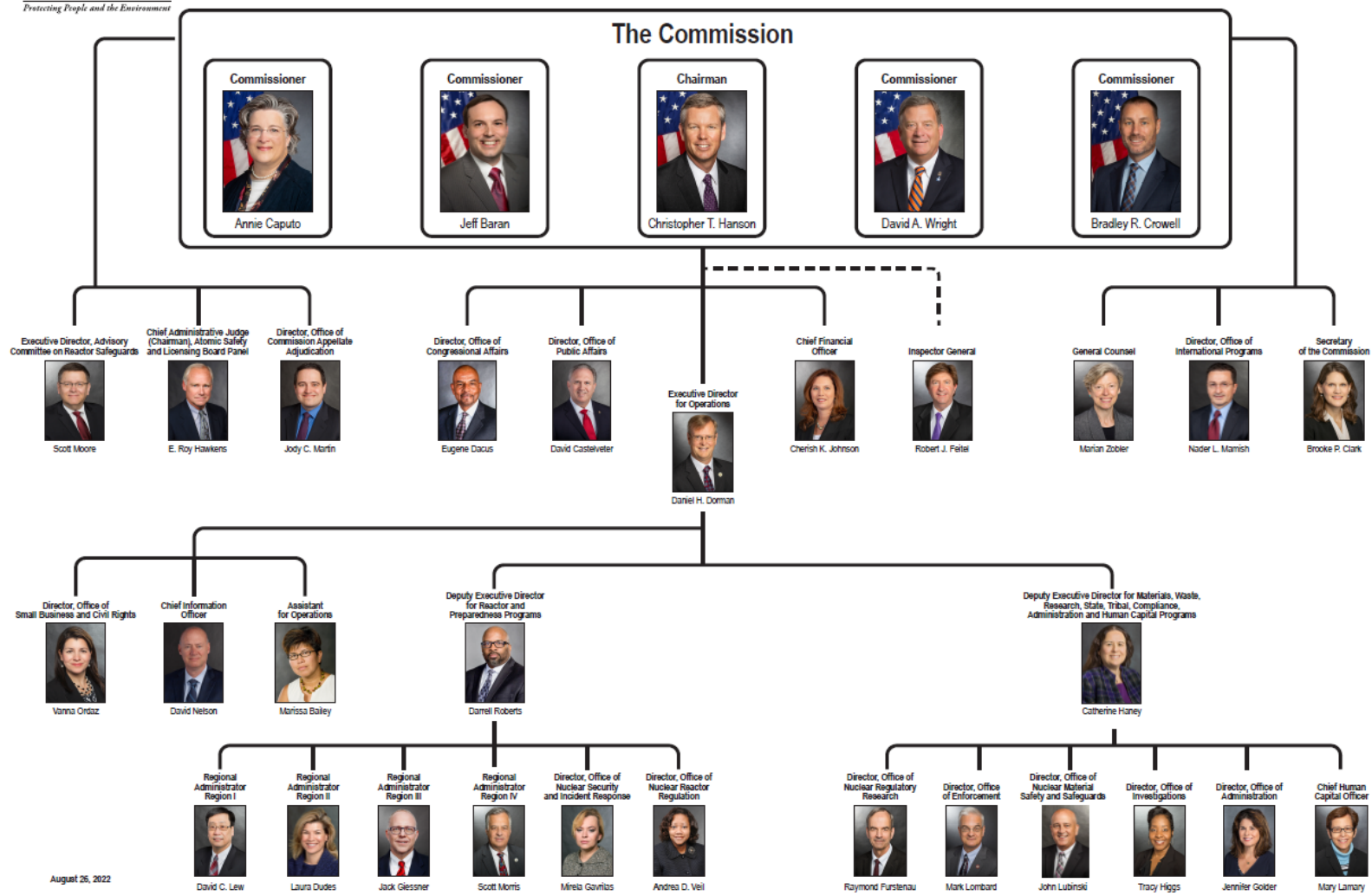


Overview of the NRC

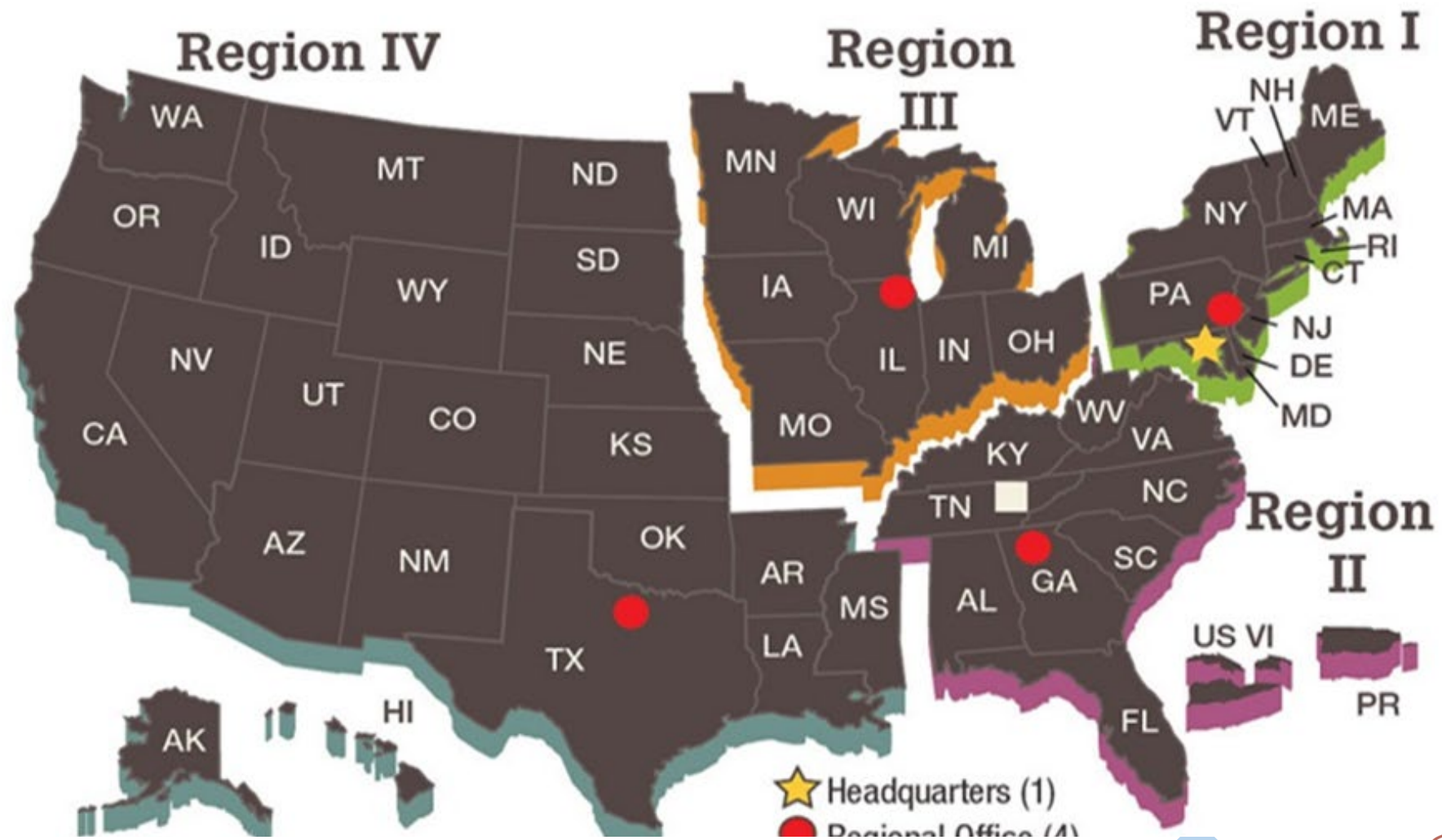
NRC Mission

The NRC licenses and regulates the Nation's civilian use of radioactive materials to provide reasonable assurance of adequate protection of public health and safety and to promote the common defense and security and to protect the environment.

U.S. Nuclear Regulatory Commission



NRC Regions





Overview of the resident inspector program

Resident Inspector Qualifications

- Bachelor's Degree with technical background
- Approximately two years formal qualification program
- Approximately two weeks per year of refresher training
- Annual objectivity reviews
- Limited to no more than 7 years at a single site

Diablo Canyon Resident Inspectors

- Mahdi Hayes, Senior Resident Inspector
- Ayesha Athar, Resident Inspector

Diablo Canyon Senior Resident Inspector

Mahdi Hayes

- B.S. Texas A&M University
- Resident Inspector at Columbia Generating Station, Richland, WA - Region 4
- Operating License Examiner in Region 4

Diablo Canyon Resident Inspector

Ayesha Athar

- B.S. University of Illinois at Urbana-Champaign
- M.S. University of Michigan
- Acting Resident Inspector
 - Grand Gulf, Comanche Peak, Clinton,
Diablo Canyon, Palo Verde
- NRC Performance Indicator Program Lead, NRR/DRO
- Shielding Analyst, AREVA Transnuclear, 2 years

Role of the Resident Inspectors

Regulation verification

- Conduct in-depth baseline inspections

Communication

- We are the “eyes and ears” of the NRC
- Provide operational awareness and detailed facility knowledge
- Emergency response – 1st NRC responders - prompt and independent information and assessment

Inspection Activities

- A “baseline” inspection program is performed at each site
- Cross-section of licensee’s activities
- Additional inspections may be performed
 - Greater than Green issues
 - Response to operational events
 - Substantive adverse trends

Diablo Canyon Power Plant Inspection Activities

January 1, 2021 – December 31, 2021

NRC completed $\approx 1,900$ hours of “direct” inspection
($\approx 8,000$ hours total)

- Resident inspection “baseline” inspection
- Regional team inspections
 - Emergency preparedness inspection
 - Fire program inspections
 - “ISI” inspection
 - Radiation safety inspections
 - Security inspections
 - Design basis insurance inspection
 - ISFSI inspection
 - Licensed operator requalification inspection
 - Heat exchanger performance inspection

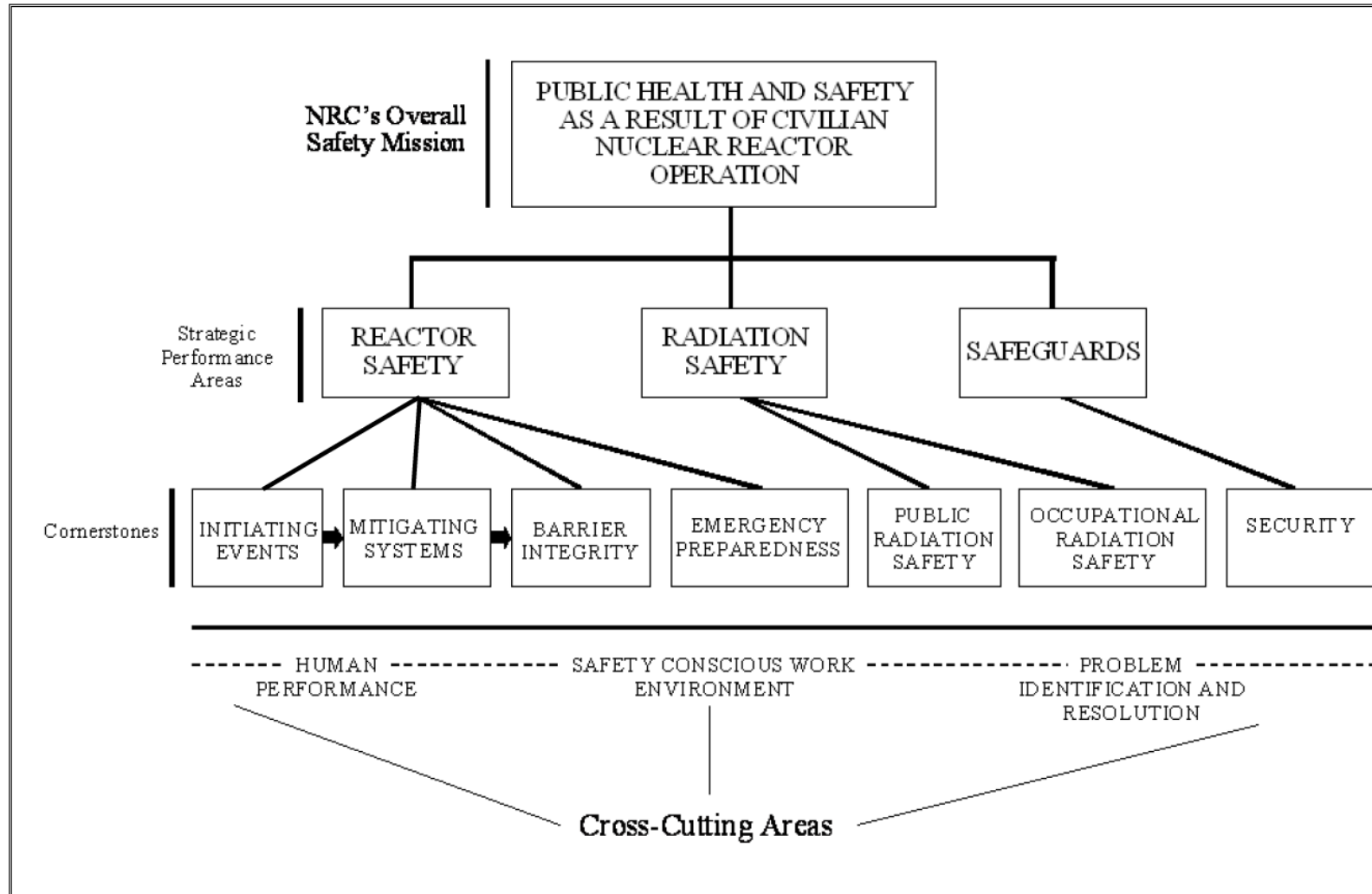
Inspection Reports

- Inspection reports are publicly available
- Inspection findings are evaluated for safety, regulatory, and risk significance, as well as enforcement
- Findings and performance indicators are used for the agency's periodic performance assessments

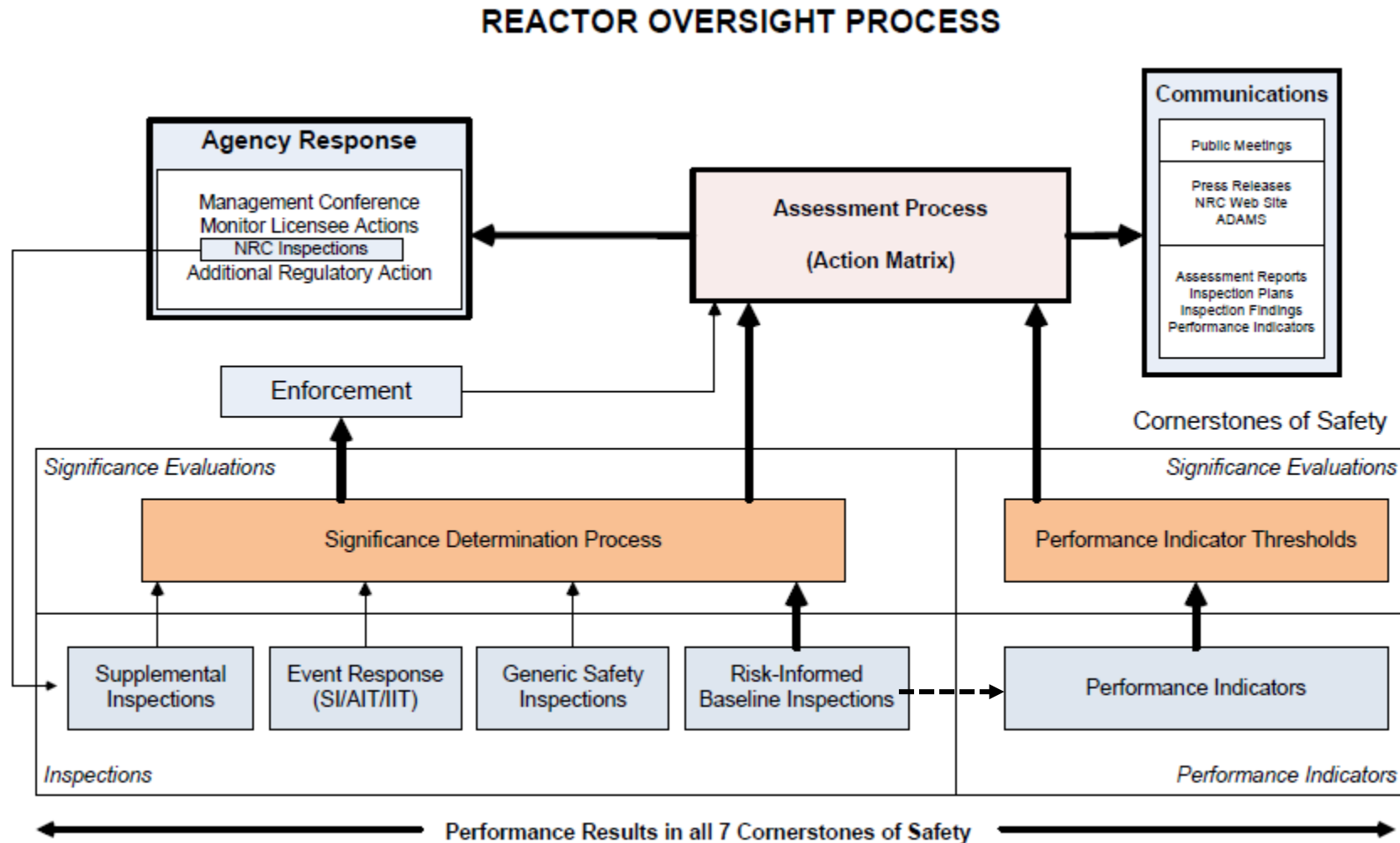


Overview of the regulatory process

How We Regulate: Regulatory Framework



How We Regulate: Reactor Oversight Process



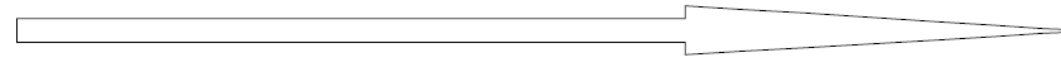
How We Regulate:



Action Matrix Concept

Licensee Response	Regulatory Response	Degraded Cornerstone	Multiple/Rep. Degraded Cornerstone	Unacceptable Performance
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Column 1 Column 2 Column 3 Column 4 Column 5

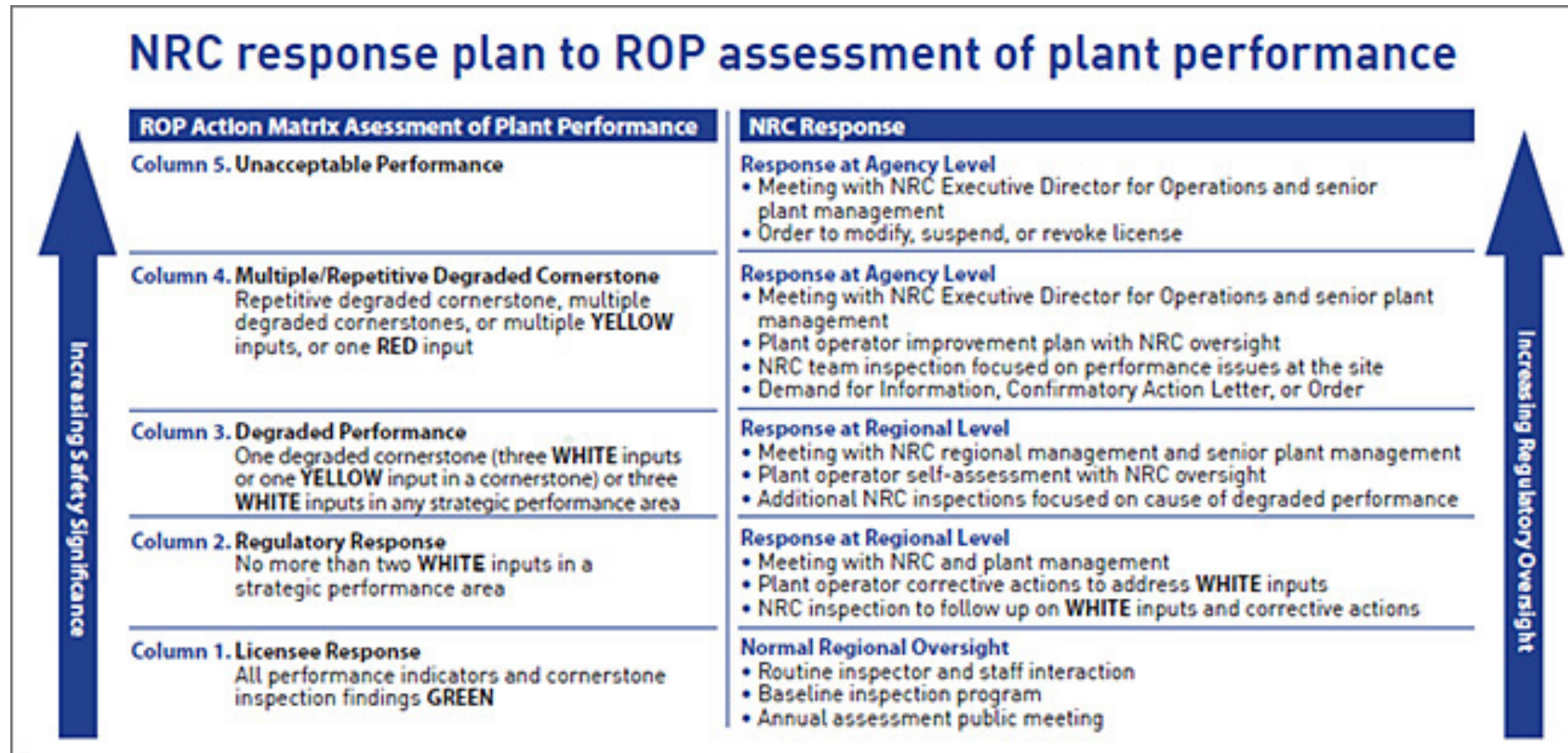


- Increasing safety significance
- Increasing NRC inspection efforts
- Increasing NRC/facility management involvement
- Increasing regulatory actions

How We Regulate: Significance “Colors” in the SDP

- **GREEN (Licensee Response Band)**
 - Cornerstone objectives fully met. Nominal risk with nominal deviation from expected performance.
- **WHITE (Increased Regulatory Response Band)**
 - Cornerstone objectives met with minimal reduction in safety margin. Changes in performance consistent with $\Delta\text{CDF} < 10^{-5}$ ($\Delta\text{LERF} < 10^{-6}$).
- **YELLOW (Required Regulatory Response Band)**
 - Cornerstone objectives met with significant reduction in safety margin. Changes in performance consistent with $\Delta\text{CDF} < 10^{-4}$ ($\Delta\text{LERF} < 10^{-5}$).
- **RED (Extensive Regulatory Response Band)**
 - Performance within the cornerstone represents an unacceptable loss of safety margin. Changes in performance consistent with $\Delta\text{CDF} > 10^{-4}$ ($\Delta\text{LERF} > 10^{-5}$). Sufficient safety margin still exists to prevent undue risk to public health and safety.

How We Regulate: Action Matrix





Covid Impacts on the Inspection Process

Covid Impacts - Then

- Work Separation, minimizing unnecessary contact.
- Residents remained available for response 24/7 and on-site 4-5 days/week.
- Single resident on-site, video meetings, Licensee computer.
- Increased “remote” inspections - Risk significance evaluated:
 - Engineering code, modification, log reviews: minimal impact
 - Meetings, interviews, questions, etc. done with tele-cons.
 - Used Residents as field personnel to perform walkdowns.
 - Used camera/video or still photos of activities.
- Licensee allowed to delay a select few activities

Covid Impacts - Now

- Resident Inspectors on site – Daily
 - Observing maintenance activities
 - In-person meetings
- Regional Inspectors perform fewer remote inspections
- Applying lessons learned to be more efficient

Publicly Available Information

The NRC places a high priority on keeping the public and stakeholders informed of its activities.

- At **www.nrc.gov**, you can:
 - Find site specific oversight information
 - Public meeting dates and transcripts;
 - Read NRC testimony, speeches, press releases, and policy decisions; and
 - Access the agency's Electronic Reading Room to find NRC publications and documents.

Contacting the NRC

Report an emergency

- (301) 816-5100 (collect calls accepted)

Report a safety concern

- (800) 695-7403
- Allegation@nrc.gov

General information or questions

- www.nrc.gov
- Select “What We Do” for Public Affairs

Questions?



Diablo Canyon Power Plant Decommissioning

Decommissioning Planning

Presented by

Tom Jones, Senior Director, Regulatory, Environmental, &
Repurposing

September 29, 2022





Key Take-aways: Decommissioning Planning Path

- **Regulatory approvals are being sought early to support transition into decommissioning**
 - Based on lessons learned from the industry (including San Onofre)
 - Schedule also informed by PG&E's previous permits and licensing activities
- **Early planning results in cost savings (i.e., preservation of the decommissioning trusts)**
- **Key permitting and licensing actions are on track for completion prior to permanent shutdown**
- **California Public Utilities Commission (CPUC) funding of \$3.9 billion (2017\$) greatly reduces project and schedule risk**

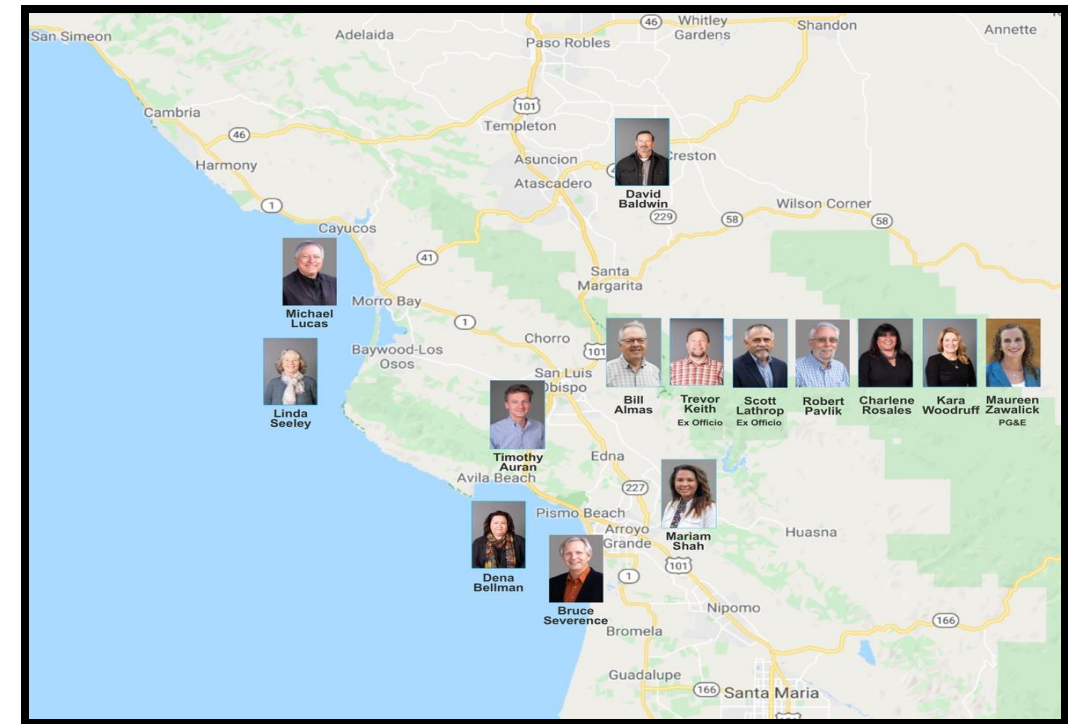
Decommissioning Planning Continues



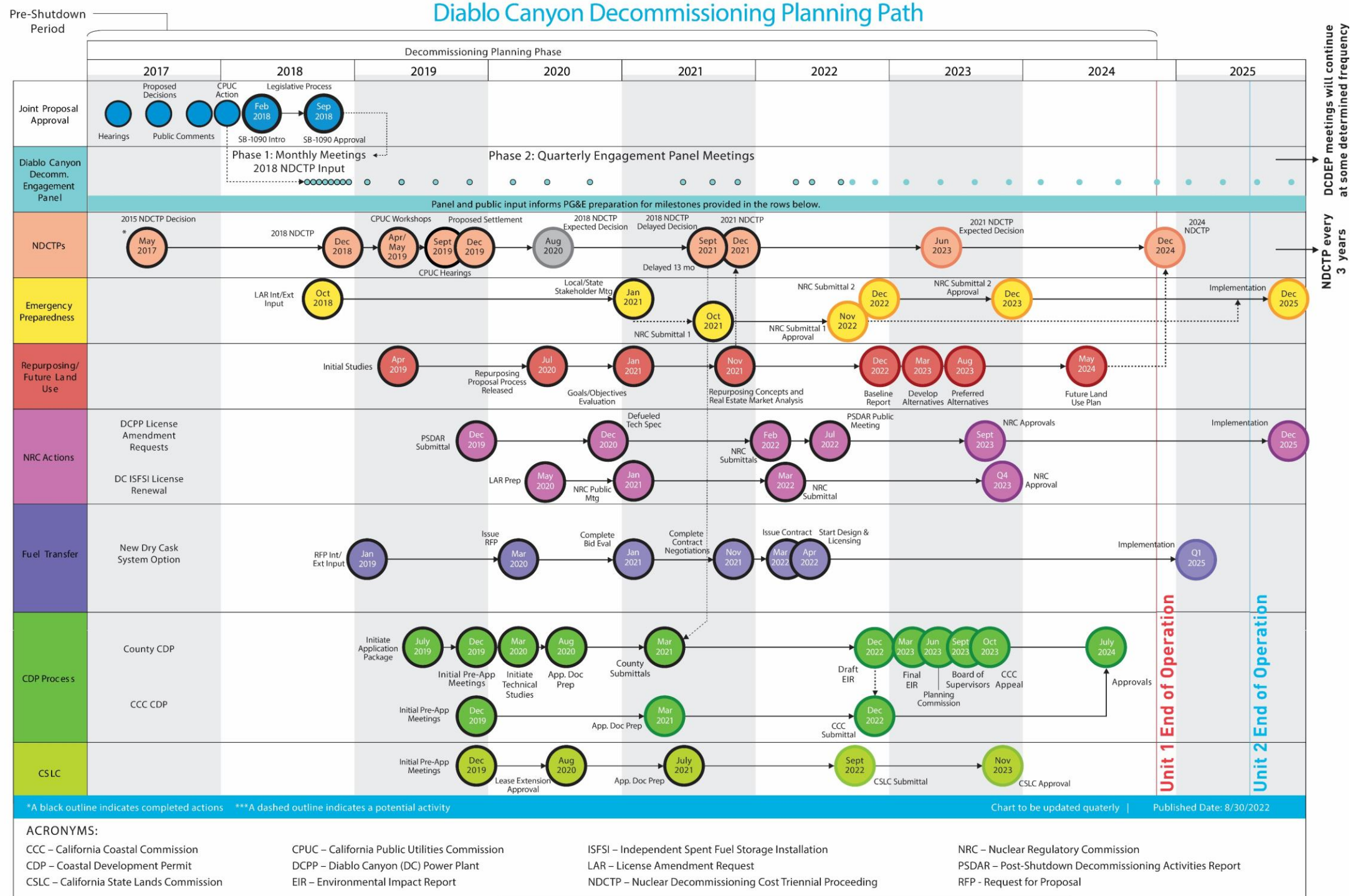
Planning Activities

Focusing on 2022-2024 activities needed to ensure smooth transition into decommissioning

- Diablo Canyon Decommissioning Engagement Panel (DCDEP)
- Repurposing and future land use process
- Decommissioning program development
 - Procedure revisions
- Licensing approvals (addressed in later slides)
- Permitting approvals (addressed in later slides)



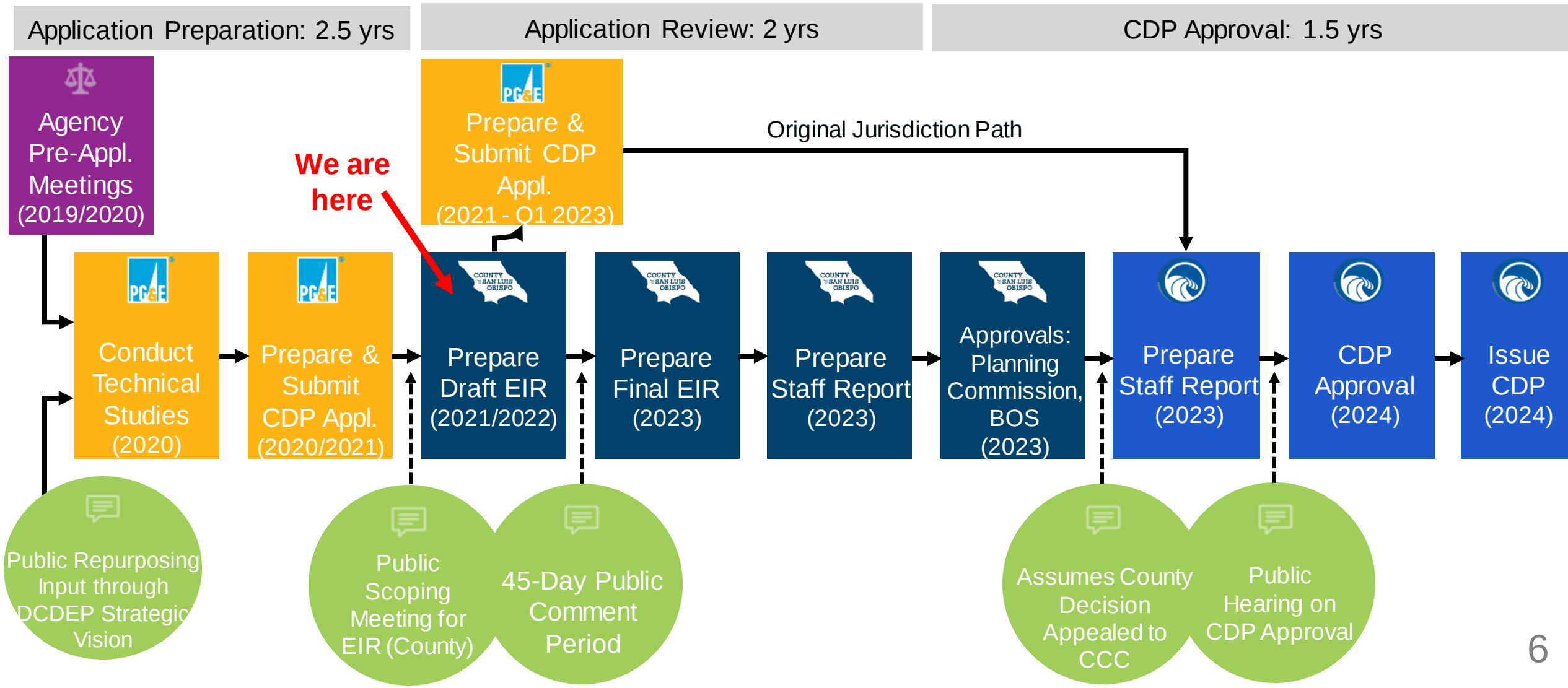
Diablo Canyon Decommissioning Planning Path





CDP Review

BOS: Board of Supervisors
CCC: California Coastal Commission
CDP: Coastal Development Permit
DCDEP: Diablo Canyon Decommissioning
Engagement Panel
EIR: Environmental Impact Report

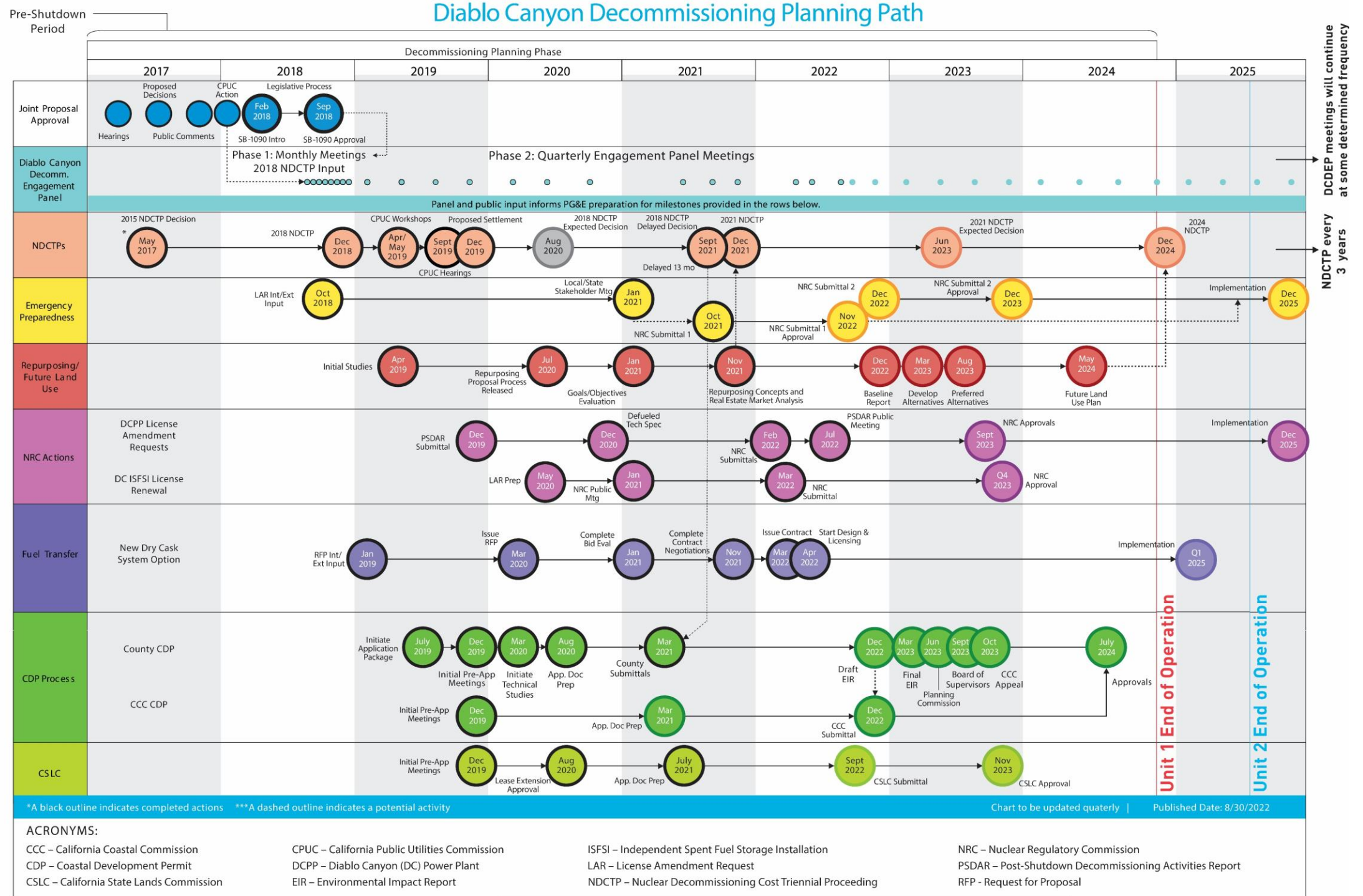


Decommissioning Licensing Activities



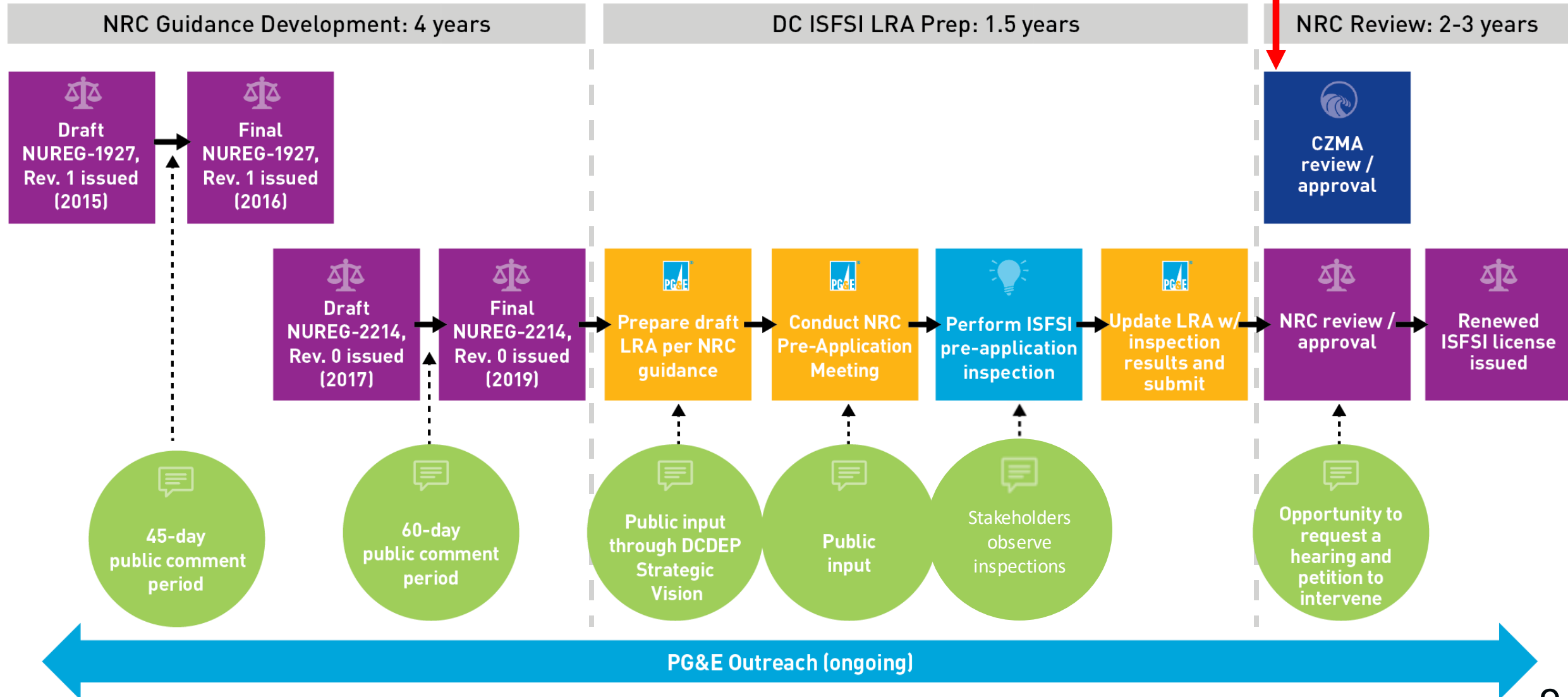
Diablo Canyon Decommissioning Planning Path

Licensing
Actions



DC ISFSI License Renewal Process

We are here





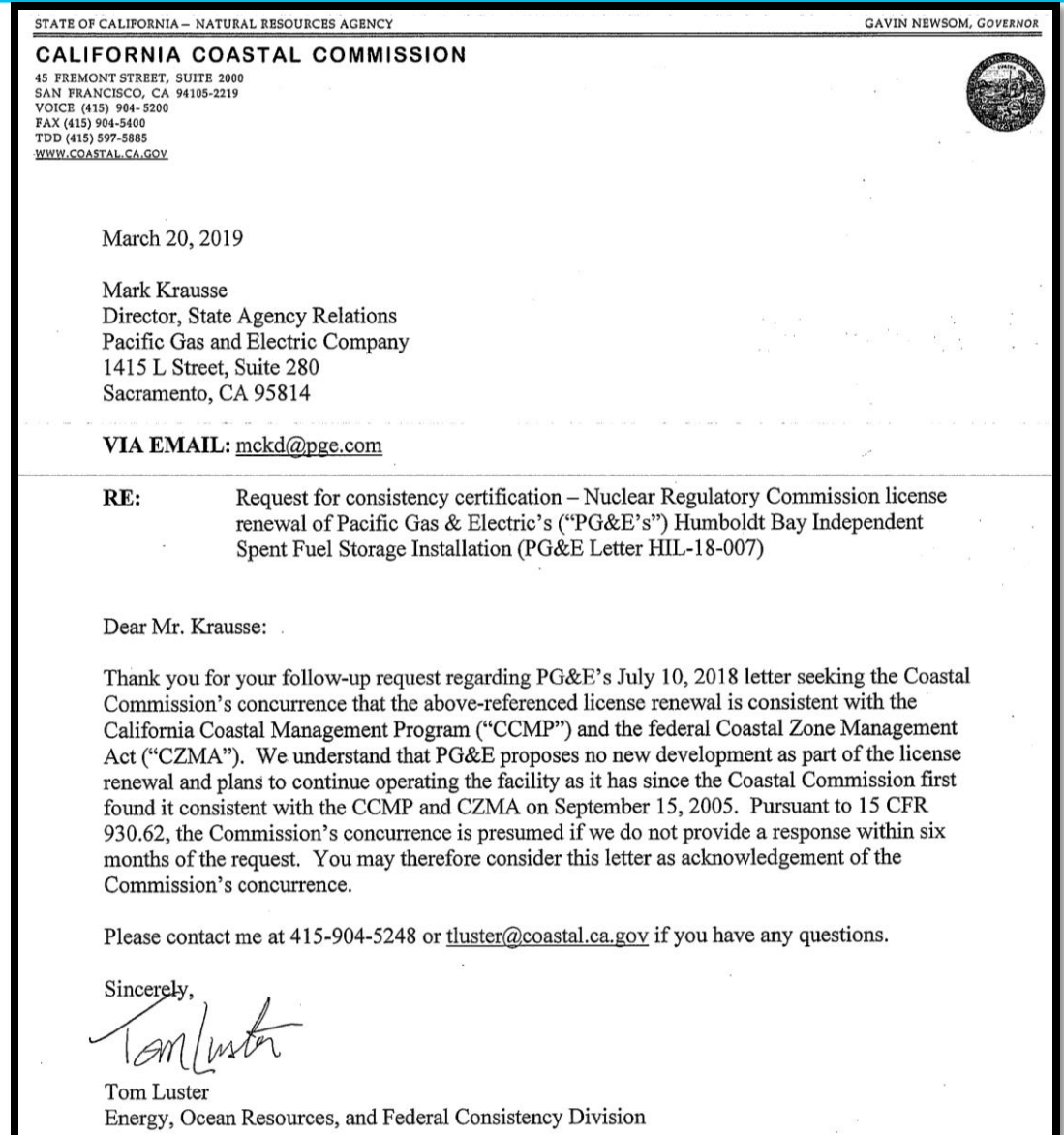
Nuclear Regulatory Commission Review

- **License Renewal Application (LRA) submitted to NRC on March 9, 2022 – publicly available at [ML22068A189](#)**
 - NRC approval would result in DC ISFSI licensed through March 2064
- **NRC's Sufficiency Review**
 - Completed; documented in NRC letter dated Sep 13, 2022
- **NRC's Detailed Review**
 - Safety and environmental reviews ensure structures and components can safely perform as intended for an additional 40 years
 - Estimated to continue through Nov 2023



California Coastal Commission Coastal Zone Management Act

- In Mar 2022, PG&E initiated consultation with the California Coastal Commission for DC ISFSI license renewal
- Review is ongoing
- Consistent with approach at Humboldt Bay ISFSI (see right)





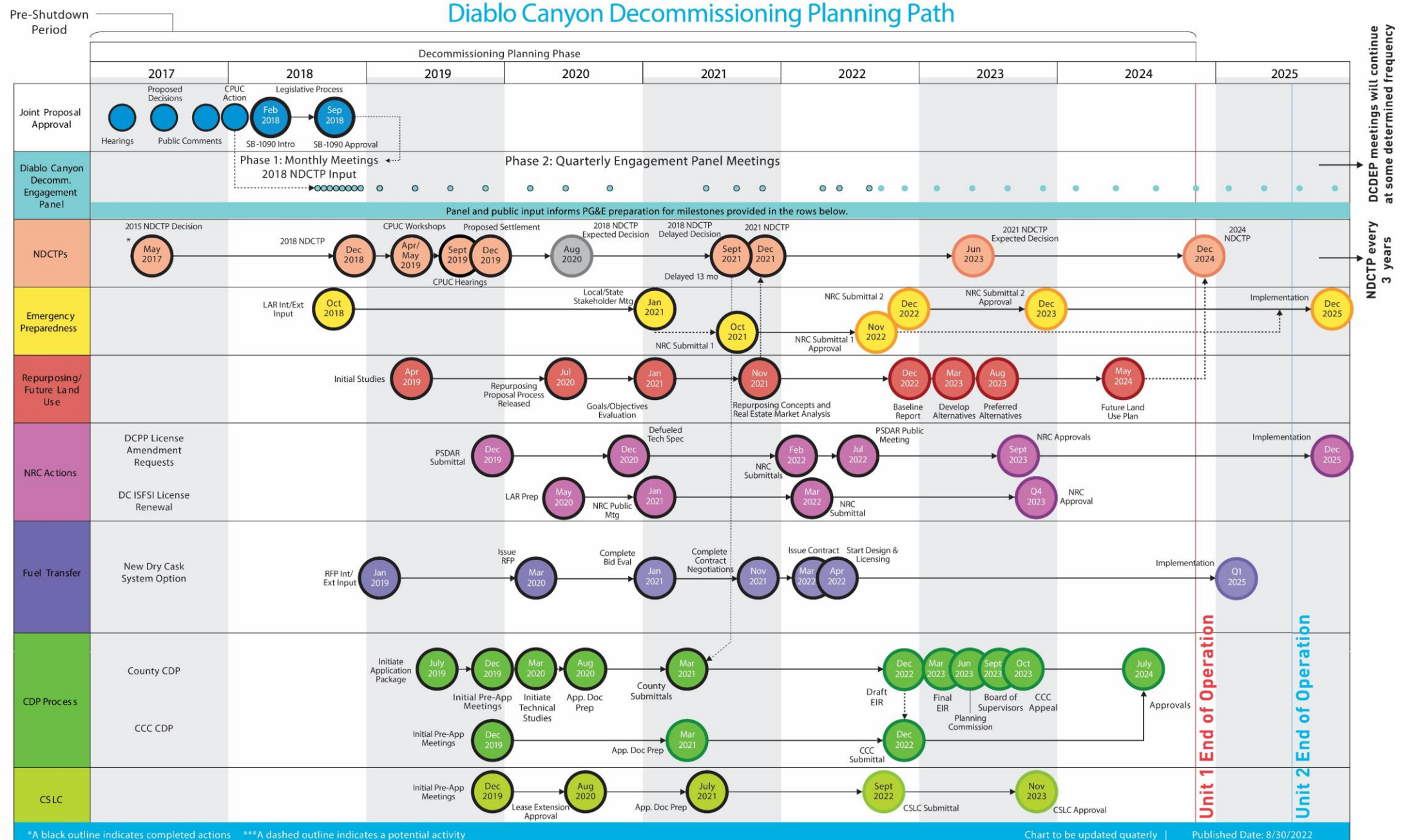
Decommissioning Licensing Actions

- **NRC licensing approvals expected in next 6 months**
 - Permanently Defueled Technical Specifications
 - Post Shutdown Emergency Plan
 - Certified Fuel Handler Training and Retraining Program
- **Recently submitted updates to align with 2021 Nuclear Decommissioning Cost Triennial Proceeding (NDCTP)**
 - Post Shutdown Decommissioning Activities Report
 - Site-Specific Decommissioning Cost Estimate
 - Irradiated Fuel Management Plan
- **Submittals expected in next 6 months**
 - Security Plan Amendments and Exemption Requests
 - Emergency Planning Exemption Request for the decommissioning period beginning ~17 months after Unit 2 shutdown

Nuclear Decommissioning Cost Triennial Proceeding



Diablo Canyon Decommissioning Planning Path



ACRONYMS:

CCC – California Coastal Commission
CDP – Coastal Development Permit
CSLC – California State Lands Commission

CPUC – California Public Utilities Commission
DCPP – Diablo Canyon (DC) Power Plant
EIR – Environmental Impact Report

ISFSI – Independent Spent Fuel Storage Installation
LAR – License Amendment Request
NDCTP – Nuclear Decommissioning Cost Triennial Proceeding

NRC – Nuclear Regulatory Commission
PSDAR – Post-Shutdown Decommissioning Activities Report
RFP – Request for Proposal

- **Submitted to CPUC in Dec 2021**
 - Decommissioning cost estimate: \$3.96 billion (in 2020\$)
 - Application reflects updates from major assumption changes, such as:
 - Spent fuel offload timeframe
 - Repurposing – retention of marina and 230-kV switchyard and lines
 - Transportation of material for disposal – blended approach (barge, truck, rail)
- **Proceeding schedule is set by the assigned CPUC Administrative Law Judge**
 - Intervenor and Rebuttal Testimony completed in June 2022
 - Settlement negotiations are in process
 - Evidentiary hearings in November 2022
 - CPUC decision expected by June 2023

Senate Bill 846 Requirements Regarding Decommissioning





SB-846 Decommissioning Requirements

- **Continue the triennial NDCTP proceedings as the venue in which the CPUC reviews and approves:**
 - DCPD decommissioning cost estimate (DCE)
 - After the fact reasonableness review of amounts already spent on decommissioning planning and/or decommissioning
- **CPUC will need to open a proceeding**
 - Will address additional decommissioning planning costs resulting from the license renewal applications or license renewals
 - To be recovered on a nonbypassable basis from customers of all load serving entities subject to the CPUC's jurisdiction
- **CPUC will halt disbursements from the Diablo Canyon Nuclear Decommissioning Non-Qualified Trust, excluding refunds to ratepayers**

Questions?

Tom Jones

Tom.Jones@pge.com



Diablo Canyon Power Plant Spent Fuel Management

Presented by
Philippe Soenen, Director, Strategic Initiatives

September 29, 2022



Background

- PG&E safely stores spent fuel at the **Diablo Canyon Independent Spent Fuel Storage Installation (DC ISFSI)**
 - Currently employ 58 Holtec HI-STORM 100SA systems
- PG&E recently entered into contract with Orano to employ their **NUHOMS® Extended Optimized Storage (EOS)** system during decommissioning

Conceptual Layout



Current Holtec Dry
Cask Storage
Systems

Conceptual Orano Dry
Cask Storage Systems
for Decommissioning

- **In response to enactment of Senate Bill (SB) 846:**
 - A spent fuel offload campaign is required prior to the period of extended operations
 - Supports ability to offload full reactor cores
 - PG&E will evaluate the offload campaign needs while concurrently continuing Orano implementation efforts
 - Ensures successful decommissioning execution if continued operations dates change

- **Updates since June 2022 DCISC meeting:**
 - Continuing site-specific engineering analyses (2022 – 2024)
 - Continuing licensing analyses to support a license amendment request submittal in Q4 2022 (NUHOMS EOS CoC Amendment 4 License Amendment Request)
 - Will request heat loads up to ~4.5 kW/assembly

Key Take-aways

- **Spent fuel management plans were affected by SB 846 that was enacted to extend operations for five additional years**
- **A spent fuel offload campaign will be safely completed prior to the period of extended operations**
- **PG&E is pursuing concurrent work paths**

Questions?

Philippe Soenen

Philippe.Soenen@pge.com



Update on Emergency Preparedness Programs – NRC Evaluated Exercise Brief

Andrew Warwick
Emergency Preparedness Manager



Together, Building
a Better California

Emergency Preparedness Exercise

- The purpose of the NRC evaluated exercise is to demonstrate DCPP's ability to protect public health and safety during emergency conditions.



Overall Performance Summary

2022 Evaluated Exercise

Public and Employee Safety

PG&E Emergency Response Organization (ERO) personnel demonstrated the ability to protect the health and safety of plant employees and the public.



9/14/22 Evaluated Exercise Performance Summary

2022 Evaluated Exercise

Integrated Response

PG&E ERO personnel effectively coordinated and communicated with state and county agencies to support offsite response efforts.

Major Elements Tested

PG&E ERO personnel effectively implemented the DCPPE Emergency Plan testing major elements and demonstrating key knowledge and skills.



Performance Summary

Overall Performance Assessment – PG&E

The internal DCPD performance assessment is in process and will be formally completed at the conclusion of all critique activities.

All performance improvement opportunities are entered in DCPD corrective action program to drive continuous improvement.



Performance Summary

Overall Performance Assessment – NRC

At the conclusion of the PG&E performance assessment, the NRC will provide feedback on their review of the exercise results. The DCPD performance assessment process is an important part of the NRC's inspection.

The NRC inspection results will be reviewed with station personnel in October.



Performance Summary

Overall Performance Assessment - FEMA

FEMA evaluates state, county and PG&E performance and concluded that the health and safety of the public surrounding Diablo Power Plant is safe during their September 15 public meeting.

FEMA will finalize and issue the After-Action Report within 90-days of the exercise.



9/14/22 Strengths

ERO Facility	Strongest Key Skill
Control Room Simulator	Protection of workers (radiological or physical) during emergency response
Technical Support Center	Engineering assessment and repair plan development
Operational Support Center	Protection of workers (radiological or physical) during emergency response
Emergency Operations Facility	Integration of licensee response with Offsite Response Organizations (OROs)
Unified Dose Assessment Center	Coordination with offsite response organizations
Joint Information Center	Dissemination of information to the public via media channels

9/14/22 Evaluated Exercise



9/14/22 Performance Indicator Summary



Performance Indicator Summary

Classifications, Notifications & Protective Action Recommendations (PARs)

Classifications	3 out of 3 Timely & Accurate
Notifications	3 out of 3 Timely & Accurate
PARs	1 out of 1 Timely & Accurate
PAR Notifications	1 out of 1 Timely & Accurate
Overall Results	8 out of 8 Timely & Accurate

Exercise Results

- DCPD response during the exercise was successful at demonstrating the station's ability to prioritize actions needed to assure public health and safety.
- All performance improvement opportunities are entered in DCPD corrective action program to drive continuous improvement.

Thank you

Andrew Warwick



READ AND DELETE

For best results with this template,

Update on Emergency Preparedness Programs – NRC Evaluated Exercise Brief

Andrew Warwick

Emergency Preparedness Manager



Together, Building
a Better California

Exercise Background

Emergency Preparedness Exercise

- The purpose of the NRC evaluated exercise is to demonstrate DCPP's ability to protect public health and safety during emergency conditions.



Overall Performance Summary

2022 Evaluated Exercise

Public and Employee Safety

PG&E Emergency Response Organization (ERO) personnel demonstrated the ability to protect the health and safety of plant employees and the public.



9/14/22 Evaluated Exercise Performance Summary

2022 Evaluated Exercise

Integrated Response

PG&E ERO personnel effectively coordinated and communicated with state and county agencies to support offsite response efforts.

Major Elements Tested

PG&E ERO personnel effectively implemented the DCPPE Emergency Plan testing major elements and demonstrating key knowledge and skills.

9/14/22 Performance Summary

Performance Definitions:

- SAT: Personnel and equipment generally performed as expected.
- UNSAT: Personnel and equipment were generally able to perform and complete a required function, however, certain aspects did not meet expectations.
- WEAKNESS: A level of ERO performance demonstrated during an exercise, drill, or training that would preclude effective implementation of the Emergency Plan if it were to occur during an actual radiological emergency.
- GAP: Performance did not meet a demonstration criterion or standard.

9/14/22 Performance Summary

Overall Performance Assessment

PG&E ERO personnel effectively implemented the DCPD Emergency Plan by demonstrating key knowledge and skills specific to their assigned functions.

- **175 of 177 facility objectives SAT**
 - 1 UNSAT objective in the CR SIM for misinterpreting a procedure step
 - 1 UNSAT objective in the UDAC for an untimely and inaccurate dose assessment

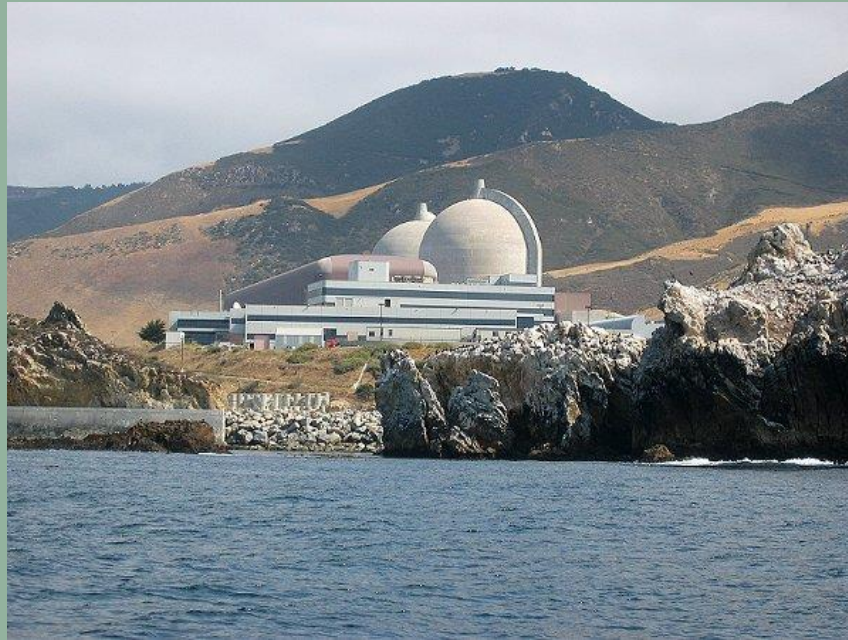
Both UNSAT objectives are in the corrective action program to ensure causes are clearly understood and actions are taken to close these gaps.



9/14/22 Strengths

ERO Facility	Strongest Key Skill
Control Room Simulator	Protection of workers (radiological or physical) during emergency response
Technical Support Center	Engineering assessment and repair plan development
Operational Support Center	Protection of workers (radiological or physical) during emergency response
Emergency Operations Facility	Integration of licensee response with Offsite Response Organizations (OROs)
Unified Dose Assessment Center	Coordination with offsite response organizations
Joint Information Center	Dissemination of information to the public via media channels

9/14/22 Evaluated Exercise



9/14/22 Performance Indicator Summary



Performance Indicator Summary

Classifications, Notifications & Protective Action Recommendations (PARs)

Classifications	3 out of 3 Timely & Accurate
Notifications	3 out of 3 Timely & Accurate
PARs	1 out of 1 Timely & Accurate
PAR Notifications	1 out of 1 Timely & Accurate
Overall Results	8 out of 8 Timely & Accurate



Performance Indicator Summary

Emergency Classifications

Facility	Classification	T = 0	T = End	Timely	Accurate
Control Room	Alert (SA6.1)	0824	0828	4 Minutes	YES
EOF	Site Area Emergency (FS1.1)	1020	1028	8 Minutes	YES
EOF	General Emergency (FG1.1)	1101	1105	4 Minutes	YES
Comments		All emergency declarations included independent peer checks.			



Performance Indicator Summary

Emergency Notifications

Facility	Classification	T = 0	T = End	Timely (PI Time)	Accurate
Control Room	Alert (SA6.1)	0828	0835	7 Minutes	YES
EOF	Site Area Emergency (FS1.1)	1028	1033	5 Minutes	YES
EOF	General Emergency (FG1.1)	1105	1110	5 Minutes	YES
Comments		All notifications were completed in 15 minutes or less to both the county and state, and the NRC immediately after.			



Performance Indicator Summary

Protective Action Recommendations (PARs)

Facility	PAR Type	T = 0	T = End	Timely	Accurate
EOF	Plant Based	1105	1107	2 Minutes	YES
Comments		All PARs included independent peer checks.			



Performance Indicator Summary

PAR Notifications

Facility	PAR Type	T = 0	T = End	Timely (PI Time)	Accurate
EOF	Plant Based	1107	1110	3 Minutes	YES
Comments		All PAR notifications were completed in 15 minutes or less to both the county and state, and the NRC immediately after.			

Inspection Results

- DCPD response during the exercise was successful at demonstrating the station's ability to prioritize actions needed to assure public health and safety.
- Inspection results: TBD – NRC exit is scheduled for 10/13/22.
- All gaps entered in notifications to drive continuous improvement.

Thank you

Andrew Warwick