

Diablo Canyon Power Plant Pre-Application Meeting

License Amendment Request to Revise
License Conditions and Technical
Specifications to Reflect the Permanently
Defueled Condition

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Meeting Purpose / Goals

- **Provide preliminary information regarding a proposed License Amendment Request (LAR) to revise the Diablo Canyon Power Plant (DCPP) Units 1 and 2 Licenses and Technical Specifications to reflect a permanently defueled condition.**
- **Walkthrough the changes to the Licenses and Technical Specifications resulting from the reduction in risk in a permanently defueled condition.**

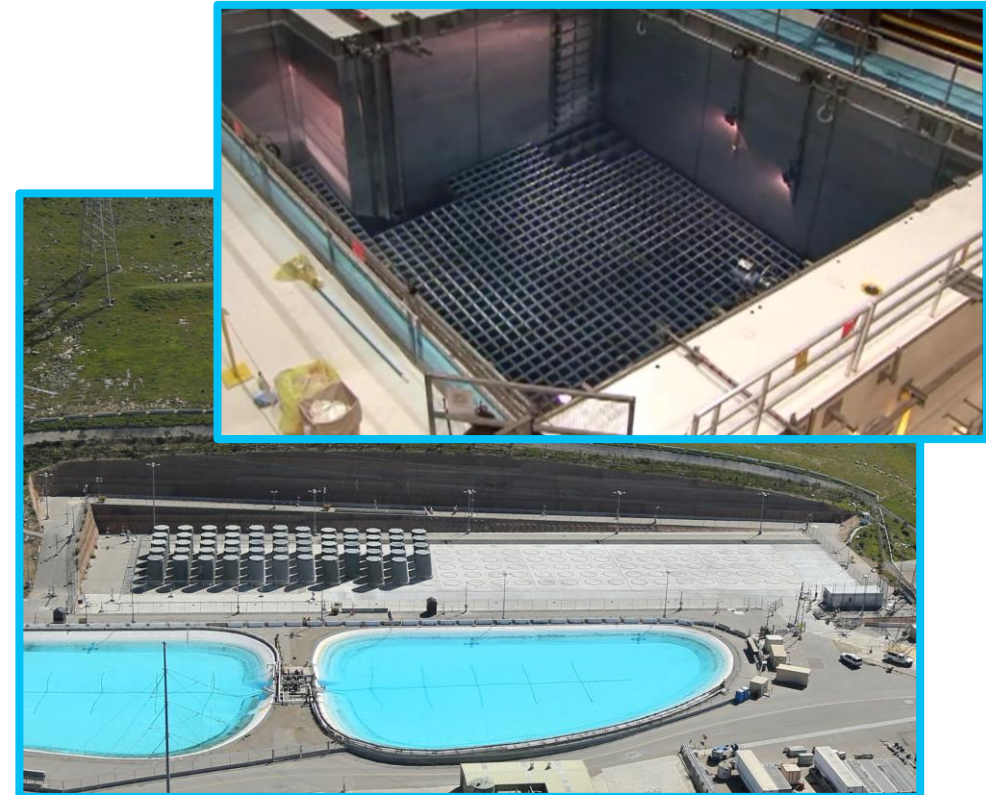


DCPP Decommissioning Planning

- **On November 27, 2018, PG&E notified the NRC of the intent to permanently cease operations at DCPP Units 1 and 2 upon expiration of the operating licenses.**
 - **DCPP Unit 1 license expires November 2, 2024**
 - **DCPP Unit 2 license expires August 26, 2025**
- **PG&E is currently working on decommissioning planning activities necessary to support direct transition to decommissioning upon permanent cessation of operations.**
 - **Including submittal of LARs to support Decommissioning.**

Background

- **Once PG&E certifies the fuel is permanently removed from the reactors, the licenses for DCPD Units 1 and 2 will no longer authorize operation of the reactors or placement of fuel in the reactor vessels.**
 - The licenses and Technical Specifications are proposed for revision to reflect this permanently defueled condition.
 - The majority of the existing Technical Specifications and associated testing requirements are only applicable with the reactor in an operational mode and therefore are proposed for deletion.
 - The spent nuclear fuel (SNF) will be stored in the Independent Spent Fuel Storage Installation (ISFSI) and the spent fuel pools until all SNF is transferred to the ISFSI.



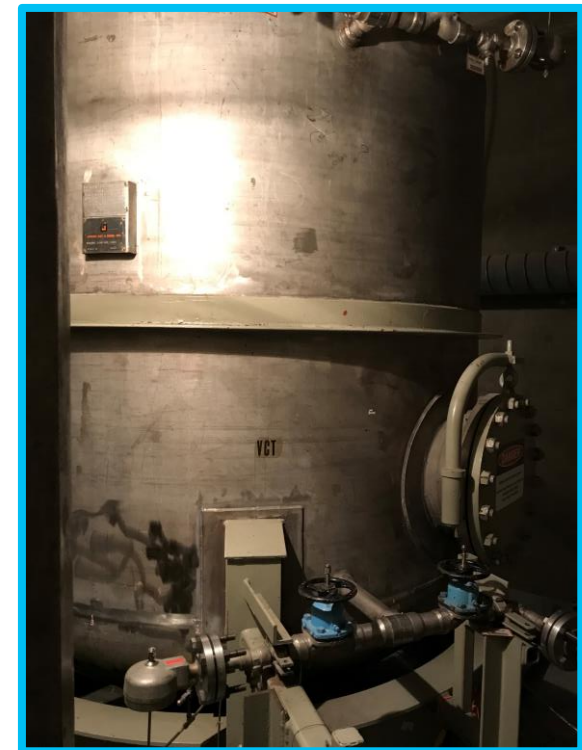


Conditions for Implementation

- **The proposed changes will not be applicable until permanent cessation of operations and once the following conditions have been met for DCPP Units 1 and 2:**
 - **Docketing of the certifications required by 10 CFR 50.82(a)(1) (i and ii) for DCPP Units 1 and 2**
 - **DCPP Units 1 and 2 have both been shutdown for at least 45 days**
 - **A Certified Fuel Handler training and retraining program has been implemented in accordance with 10 CFR 50.2**

Evaluation of Potential Design Basis Accidents

- **Evaluates all of the Updated Final Safety Analysis Report, Chapter 15 and Chapter 11 tank rupture accidents**
- **Detailed Discussion of the remaining potential design basis accidents**
 - Tank ruptures – current evaluations are bounding for decommissioning
 - Fuel Handling Accident (FHA) in the Fuel Handling Building
 - Does not rely on any active systems as part of the initial conditions of the analysis or as part of the primary success path for mitigation of the accident
 - PG&E can implement the revised FHA and the PDTs 45 days after both Units have been shutdown and is requesting up to 180 days to implement





Review of General Design Criteria

- **Detailed Review of the General Design Criteria (GDC)**
 - Includes a review of commitments to the 1967 GDCs (plus later commitments) and conformance to the intent of the 1971 GDCs
 - Categorizes the GDCs into the following four categories;
 - A. No Longer Applies
 - B. Unchanged
 - C. Minor Change
 - D. Major Change



Proposed Changes to the Operating Licenses

- **Updates language to reflect permanently shutdown and defueled condition**
- **Deletes historical license conditions that were previously satisfied**



Proposed Changes to the Operating Licenses

- **New License Conditions**

- If all spent fuel has not been removed from the Unit 1 spent fuel pool prior to November 2, 2028, an aging management program shall be submitted prior to this date for NRC approval.
- If all spent fuel has not been removed from the Unit 2 spent fuel pool prior to August 26, 2029, an aging management program shall be submitted prior to this date for NRC approval.

Appendix D, Additional Conditions

- **Appendix D, Additional Conditions includes complex implementation activities for LARs**
 - **Proposed for deletion in its entirety because all implementation activities were previously completed**



Proposed Changes to Technical Specifications

TS Section	Summary of Changes
1.0 Use and Application	Updates definitions (added Certified Fuel Handler and Non-Certified Operator), removes descriptions, examples, and terms no longer applicable in the permanently defueled condition. Revises examples in Section 1.4, Frequency to align with the remaining TSs.
2.0 Safety Limits	Proposed for deletion.
3.0 Limiting Condition for Operation Applicability	Revises LCO 3.0.1 and 3.0.2 to remove terms, references and descriptions no longer applicable in the permanently defueled condition. LCOs 3.0.3 through 3.0.8 are proposed for deletion.
3.0 Surveillance Requirement Applicability	Revises SR 3.0.1 through 3.0.4 to remove terms, references and descriptions no longer applicable in the permanently defueled condition.
3.1 Reactivity Control Systems	Proposed for deletion
3.2 Power Distribution Limits	Proposed for deletion



Proposed Changes to Technical Specifications

TS Section	Summary of Changes
3.3 Instrumentation	Proposed for deletion
3.4 Reactor Coolant System	Proposed for deletion
3.5 Emergency Core Cooling Systems	Proposed for deletion
3.6 Containment Systems	Proposed for deletion
3.7 Plant Systems	<p>TS 3.7.15, Spent Fuel Pool Water Level – Deletes note associated with LCO 3.0.3 and added SR frequency.</p> <p>TS 3.7.16, Spent Fuel Pool Boron Concentration - Deletes note associated with LCO 3.0.3 and added SR frequency.</p> <p>TS 3.7.17, Spent Fuel Assembly Storage – Revises LCO to remove reference to historical conditions only applicable for Cycles 14-16, including associated Figure and deletes note associated with LCO 3.0.3.</p> <p>All other 3.7 TS are proposed for deletion.</p>



Proposed Changes to Technical Specifications

TS Section	Summary of Changes
TS 3.8 Electrical Power Systems	Proposed for deletion
TS 3.9 Refueling Operations	Proposed for deletion
TS 4.0 Design Features	4.2 Reactor Core – proposed for deletion 4.3 Fuel Storage – deletes design information associated with the new fuel storage racks and deletes historical design information only applicable for Cycles 14-16.



Proposed Changes to Administrative Technical Specifications

TS Section	Summary of Changes
5.1 Responsibility	Updates terminology, removes Shift Foreman responsibilities and adds Shift Supervisor
5.2 Organization	Updates terminology, adds minimum on duty shift requirements, deletes requirements no longer applicable in the permanently defueled condition, and adds responsibilities for the Certified Fuel Handlers
5.3 Unit Staff Qualifications	Updates terminology, removes reference to the updated FSAR and adds a requirement for maintaining a training and retraining program for Certified Fuel Handlers
5.4 Procedures	Specifies the applicability of the TS to the safe storage of spent nuclear fuel and deletes the requirement for emergency operating procedures required to implement the requirements of NUREG-0737 and NUREG-0737, Supplement 1



Proposed Changes to Administrative Technical Specifications

TS Section	Summary of Changes
5.5 Programs and Manuals	
5.5.2 Primary Coolant Sources Outside Containment	Proposed for deletion
5.5.4 Radioactive Effluent Controls Program	Updates terminology
5.5.5 Component Cyclic or Transient Limit	Proposed for deletion
5.5.7 Reactor Coolant Pump Flywheel Inspection Program	Proposed for deletion
5.5.8 Inservice Testing Program	Proposed for deletion
5.5.9 Steam Generator (SG) Tube Inspection Program	Proposed for deletion
5.5.10 Secondary Water Chemistry Program	Proposed for deletion
5.5.11 Ventilation Filter Testing Program	Proposed for deletion



Proposed Changes to Administrative Technical Specifications

TS Section	Summary of Changes
5.5 Programs and Manuals (continued)	
5.5.13 Diesel Fuel Oil Testing Program	Proposed for deletion
5.5.15 Safety Function Determination Program (SFDP)	Proposed for deletion
5.5.16 Containment Leakage Rate Testing Program	Proposed for deletion
5.5.17 Battery Monitoring and Maintenance Program	Proposed for deletion
5.5.18 Surveillance Frequency Control Program	Proposed for deletion
5.5.19 Control Room Envelop Habitability Program	Proposed for deletion



Proposed Changes to Administrative Technical Specifications

TS Section	Summary of Changes
5.6 Reporting Requirements	
5.6.2 Annual Radiological Environmental Operating Report	Updates terminology
5.6.3 Radioactive Effluent Release Report	Updates terminology
5.6.5 Core Operating Limits Report (COLR)	Proposed for deletion
5.6.6 Reactor Coolant System (RCS) Pressure and Temperature Limits Report (PTLR)	Proposed for deletion
5.6.8 PAM Report	Proposed for deletion
5.6.10 Steam Generator (SG) Tube Inspection Report	Proposed for deletion



Regulatory Analysis

- **Applicable Regulatory Requirements/Criteria**
 - **10 CFR 50.82, Termination of license**
 - **10 CFR 50.36, Technical Specifications**
 - **10 CFR 50.48, Fire Protection**
 - **PG&E is evaluating the guidance included in proposed Regulatory Guide 1.191, Revision 1, for licensees with approved NFPA 805 programs to transition the program to meet the requirements of 10 CFR 50.48(f)**
 - **DCPP Units 1 and 2 Design Basis Accidents**
 - **10 CFR 50.51, Continuation of Licenses**



Regulatory Analysis Continued

- **Applicable Regulatory Requirements/Criteria**
 - **10 CFR 50.46, Acceptance Criteria for Emergency Core Cooling Systems for Light-Water Nuclear Reactors**
 - **10 CFR 50.62, Requirements for Reduction of Risk from Anticipated Transients Without Scram (ATWS) Events for Light-Water-Cooled Nuclear Power Plants**
 - **10 CFR 50.54(m), Minimum Requirements Per Shift for On-Site Staffing of Nuclear Power Units by Operators and Senior Operators Licensed Under 10 CFR Part 55**

- **Precedent**

- **Davis-Besse Nuclear Power Station– Submittal and request for additional information, however license amendment request was withdrawn prior to NRC approval**
- **Three Mile Island Nuclear Station**
- **Oyster Creek Nuclear Generating Station**
- **Fort Calhoun Station**
- **Crystal River Nuclear Power Plant (License Condition for Aging Management)**



Attachments

Attachments

Proposed Facility Operating License Changes (DPR-80 and DPR-82) – Markup

Proposed Changes to Additional Conditions – Markup

Proposed Technical Specification Changes – Markup

Proposed Technical Specification Bases Changes – Markup (for information only)

Proposed Facility Operating License Changes (DPR-80 and DPR-82) – Clean

Proposed Technical Specifications – Clean

Proposed Technical Specification Bases – Clean (for information only)

- **Additional Conditions – appendix deleted in its entirety, no clean version provided**
- **Technical Specifications in Section 3.1 through 3.9 that are completely deleted are shown only in the markup of the Table of Contents**
 - **Technical Specifications are intentionally not renumbered**
- **Technical Specification bases completely deleted are shown only in the markup of the Table of Contents**

Thank You

