Pacific Gas and Electric Company
Spent Nuclear Fuel Storage:
Diablo Canyon and Humboldt Bay

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PG&E Spent Fuel Storage Locations

Humboldt Bay (HB)
Humboldt Bay and HB ISFSI Overview

• Humboldt Bay Power Plant
  – Operating license DPR-7
  – Operated 1963 – 1976

• Site-specific 10 CFR Part 72 license

• Holtec HI-STAR 100 system
  – An underground vault with six cells
  – Stored in transportation casks

• All casks were loaded 2008 – 2013
  – Ready for offsite transport once licensed repository becomes available
  – Renewed license targeted for Q1 2020
PG&E Spent Fuel Storage Locations

Diablo Canyon Power Plant (DCPP)

Diablo Canyon Bay
Humboldt Bay
San Francisco
Los Angeles
DCPP Overview

Operating licenses DPR-80 and DPR-82

DCPP commercial operations began:
- Unit 1: May 1985
- Unit 2: March 1986

4 – 5 years remaining until expiration of operating licenses:
- Unit 1: November 2024
- Unit 2: August 2025
DC ISFSI Overview

• Site-specific 10 CFR Part 72 license
• Holtec HI-STORM 100SA system
  – Anchored cask design for seismic considerations
  – 10-year spent fuel pool cooling time
• ISFSI pad will hold all fuel for the licensed plant life
• Current status:
  – 7 completed loading campaigns
  – 1,856 fuel assemblies stored at the DC ISFSI in 58 casks
• Future Status:
  – use of 138 cask locations with two locations to facilitate aging management activities
Stakeholder Engagement

• Diablo Canyon Decommissioning Engagement Panel (DCDEP)
  – Conducted a 2-day public workshop on spent fuel management in Feb 2019
  – Conducted a subsequent public meeting in Mar 2019
  – Published a Strategic Vision document summarizing public opinion

• California Energy Commission (CEC)
  – Conducts periodic meetings to inform the DCPP spent fuel storage strategy

• California Public Utilities Commission (CPUC)
  – Review/approval of the PG&E 2018 decommissioning cost estimate
  – Workshop conducted in May 2019 between CEC, CPUC, and PG&E

• UCLA Risk Assessment
  – Evaluating various options for fuel transfer to the ISFSI
  – DCDEP and CEC provided input
Where We Are Today

Based on stakeholder feedback:

- Will issue a request-for-proposal (RFP) in Q1 2020 for an alternate or modified dry cask storage system to support expedited fuel transfer from the spent fuel pools to the DC ISFSI
  - Input from the DCDEP, CEC, and risk assessment results will be used to develop RFP evaluation criteria.

New/modified dry cask storage system shall:

- Fit within the footprint of the existing DC ISFSI
- Support the final offload of spent fuel to the ISFSI within 4 years of the shut down of Unit 1 and 2, respectively
- Any reductions in the timeline for transferring spent fuel to the DC ISFSI will not increase safety risks associated with the storage and handling of the spent nuclear fuel
Expedited Spent Fuel Transfer Consequences

• Enables more rapid DCPP decommissioning
  – Earlier Part 50 license termination

• Cost Savings
  – 10-year cooling time – current DC ISFSI Technical Specifications
  – 7 years* – proposed revision based on preliminary vendor evaluations
  – ≤ 4 years* – goal from proposed settlement

* Subject to NRC and other regulatory approvals
DCPP Repurposing Opportunities
Thank You

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