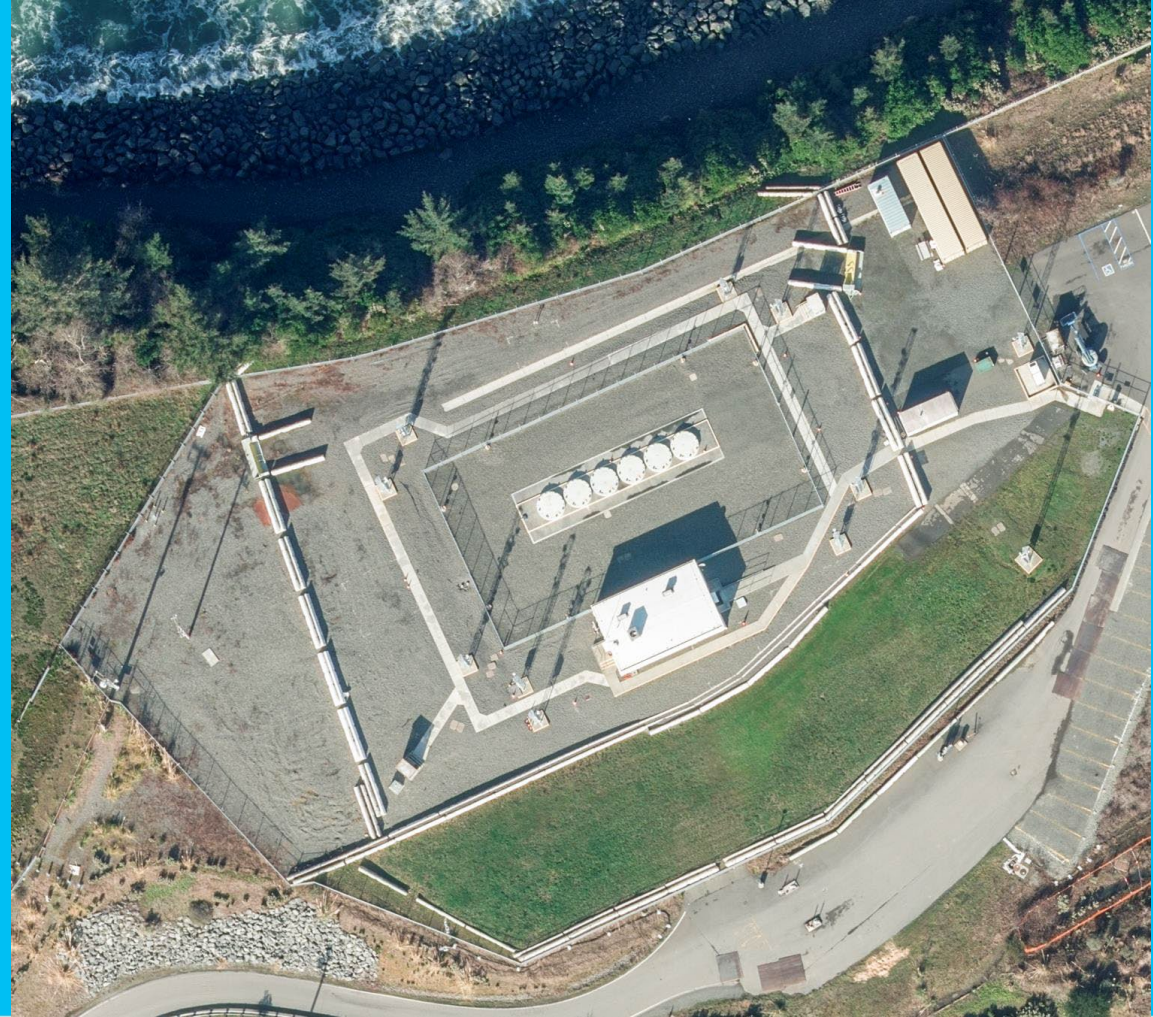


Humboldt Bay Independent Spent Fuel Storage Installation Pre-Application Meeting

License Amendment Request to Revise
the License and Technical Specifications

Presented by:
Philippe Soenen, Decommissioning
Environmental and Licensing Manager





Meeting Purpose / Goals

Provide preliminary information regarding a proposed License Amendment Request (LAR) to revise the Humboldt Bay (HB) Independent Spent Fuel Storage Installation (ISFSI) License and Technical Specifications (TS) to reflect the following:

- **Administrative changes to license conditions that reference Humboldt Bay Power Plant (HBPP).**
- **Delete license conditions that are complete, no longer applicable or restate NRC regulations.**
- **Revise the TS to remove HBPP structures, systems, and components, and delete activities that are no longer applicable.**
- **Add a new administrative TS for processing administrative changes to the Humboldt Bay ISFSI Quality Assurance (QA) Program.**



HBPP Site History

- The spent nuclear fuel from HBPP was transferred from the Spent Fuel Pool to the ISFSI in 2008.
- HBPP started active decommissioning in 2009.
- Reactor Vessel Internal Greater-Than-Class-C (GTCC) waste was transferred from HBPP to the ISFSI in 2013.
- Building removal and site remediation at HBPP is completed and Pacific Gas and Electric Company (PG&E) plans to submit a request to terminate the 10 CFR Part 50 license in Q4 2021.



Summary of Proposed License Changes

The proposed changes to the License include the following:

- **Revising the location and authorized place of use to remove reference to HBPP. (License Conditions 2 and 10)**
- **Deleting License Condition 13 which specifies that fuel and cask handling activities that were performed in the refueling building are governed by the TS for HBPP.**
- **Deleting License Condition 14 which required PG&E to submit for NRC approval a Quality Assurance Program that complies with the requirements of 10 CFR Part 72, Subpart G prior to terminating the 10 CFR Part 50 license for HBPP.**
 - **This license condition was satisfied in 2020.**

Summary of Proposed License Changes (continued)

- **Deleting License Condition 15 which specifies the requirement to follow the HB ISFSI Emergency Plan as supplemented and revised in accordance with 10 CFR 72.44(f).**
 - This license condition restates NRC regulations and therefore is not required.
- **Deleting License Condition 17 which required successful completion of certain testing prior to loading spent nuclear fuel into dry casks for storage.**
 - These tests were successfully completed prior to loading the spent nuclear fuel.

Questions or Feedback on Proposed License Changes





Summary of Proposed Changes to TS

The proposed changes to the HB ISFSI TS include the following:

- **TS 3.1.1 Multi-Purpose Canister (MPC-HB)**
 - All spent nuclear fuel and GTCC are safely stored at the ISFSI.
 - PG&E complies with the retrievability definition included in Interim Staff Guidance-2, Fuel Retrievability in Spent Fuel Storage Applications.
 - Ability to safely remove spent nuclear fuel from storage at the cask level. (ISG-2, Option C)
- **Deleting Condition D and Required Action D.1 based on the current status of decommissioning at HBPP.**

3.1 SFSC INTEGRITY

3.1.1 MULTI-PURPOSE CANISTER (MPC-HB)

LCO 3.1.1 The MPC-HB shall be dry and helium filled.

APPLICABILITY: During TRANSPORT OPERATIONS and STORAGE OPERATIONS

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D. Required Actions and associated Completion Times not met.	D.1 Remove all fuel assemblies from the MPC-HB.	30 days
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Summary of Proposed Changes to TS (continued)

- **TS 3.1.1 Multi-Purpose Canister (MPC-HB) continued...**
 - Revising Surveillance Requirements 3.1.1.1 through 3.1.1.3 to clarify the Frequency was once prior to “initial” Transport Operations.
 - Verification these surveillance requirements were successfully completed were performed as part of initial loading operations.

SURVEILLANCE		FREQUENCY
SR 3.1.1.1	<p>Verify MPC-HB cavity vacuum drying pressure is ≤ 3 torr for ≥ 30 min.</p> <p><u>OR</u></p> <p>While recirculating helium through the MPC-HB cavity, verify that the gas temperature exiting the demister is $\leq 21^{\circ}\text{F}$ for ≥ 30 min or the dew point of the gas exiting the MPC is $\leq 22.9^{\circ}\text{F}$ for ≥ 30 min.</p>	Once, prior to initial TRANSPORT OPERATIONS.
SR 3.1.1.2	Verify MPC-HB helium backfill pressure is ≥ 45.2 psig and ≤ 48.8 psig at a reference temperature of 70°F .	Once, prior to initial TRANSPORT OPERATIONS.
SR 3.1.1.3	Verify that the total helium leak rate through the MPC-HB vent and drain port cover plate welds is $\leq 1.0\text{E-}7$ atm-cc/sec (He).	Once, prior to initial TRANSPORT OPERATIONS.

Summary of Proposed Changes to TS (continued)

- **TS 3.1.2 Overpack Heat Removal System**
 - Revising Surveillance Requirements 3.1.2.1 through 3.1.2.3 to clarify the Frequency was once prior to “initial” Transport Operations.
 - Verification these surveillance requirements were successfully completed was performed as part of initial cask loading operations.

SURVEILLANCE		FREQUENCY
SR 3.1.2.1	Verify OVERPACK annulus vacuum drying pressure is ≤ 3 torr for ≥ 30 min.	Once, prior to initial TRANSPORT OPERATIONS
SR 3.1.2.2	Verify OVERPACK annulus helium backfill pressure is ≥ 10 psig and ≤ 14 psig	Once, prior to initial TRANSPORT OPERATIONS
SR 3.1.2.3	Verify that the total helium leak rate through the OVERPACK closure plate inner mechanical seal, the OVERPACK vent port plug seal and the OVERPACK drain port plug seal is $\leq 4.3\text{E-}6$ atm-cc/sec (He).	Once, prior to initial TRANSPORT OPERATIONS



Summary of Proposed Changes to TS (continued)

- **TS 3.1.3 Fuel Cool Down**
 - Deleting TS 3.1.3 which was only applicable during Unloading Operations prior to re-flooding.

Fuel Cool-Down 3.1.3

3.1 SFSC INTEGRITY

3.1.3 Fuel Cool-Down

LCO 3.1.3 The MPC-HB cavity bulk helium temperature shall be $\leq 200^{\circ}\text{F}$.

-----NOTE-----
The LCO is only applicable to wet UNLOADING OPERATIONS.

APPLICABILITY: During UNLOADING OPERATIONS prior to re-flooding.

Summary of Proposed Changes to TS (continued)

- **TS 4.3.1 Cask Transporter**
 - Removing reference to movements and locations that are no longer applicable.
- **TS 4.3.3 Spent Fuel Storage Cask (SFSC) Load Handling Equipment**
 - Removing reference to structures governed by 10 CFR Part 50.
- **TS 5.1.2 Radioactive Effluent Control Program**
 - Clarifying there are no radioactive gaseous or liquid effluents released from the HB ISFSI.
 - Removing the requirements for the program to provide limits on surface contamination prior to removing an Overpack or Greater-than-Class-C (GTCC) cask from the refueling building.

Summary of Proposed Changes to TS (continued)

- **TS 5.1.3 MPC-HB and SFSC Loading, Unloading and Preparation Program**
 - Deleting TS because the program was only applicable during loading, unloading and preparing for storage.
- **TS 5.1.5 Cask Transportation Evaluation Program**
 - Removing reference to moving SFSCs between the Refueling Building and the ISFSI Storage Vault.
- **TS 5.1.6 GTCC Cask Loading and Preparation Program**
 - Deleting TS because the program was only applicable during loading and preparing a GTCC Cask for storage



Feedback on Proposed License and TS Changes

- **NRC concerns with reviewing the proposed license and TS changes**
- **Additional details required to support review of the proposed license and TS changes**

Background - New Proposed Administrative TS

- **10 CFR Part 50 allows changes to the QA Plan without prior NRC approval if there is no reduction in commitment.**
- **NRC Information Notice (IN) 2002-35 clarified the NRC position that all changes to Part 71 and 72 QA plans require NRC approval.**
 - **“In the interests of reducing regulatory burden and increasing efficiency, NRC is considering changes to Parts 71 and 72, to provide a method similar to the provisions of 10 CFR 50.54(a)(3) and (4) for making changes to QA programs. However, until regulatory changes are developed and promulgated, Parts 71 and 72 QA program approval holders must comply with the current requirements.”**



Background - New Proposed Administrative TS

- In 2015 the NRC implemented a change to 10 CFR Part 71 to allow licensees to make certain changes to QA Programs without NRC approval.
- Federal Register Notice includes the following summarized comment and NRC response:
 - **Comment – Recommendation that the NRC initiate action to make similar and compatible changes to 10 CFR Part 72, Subpart G.**
 - **Response – NRC agrees with the recommendation, and will consider making the recommended changes to 10 CFR Part 72 during a future rulemaking.**
- **PG&E is not aware of any ongoing rulemaking to revise 10 CFR Part 72.**



Background - New Proposed Administrative TS

- **PG&E is proposing a new Administrative TS to allow changes to the Part 72 QA Plan without NRC approval.**
 - Continued silence in 10 CFR Part 72 creates an unnecessary burden for activities with no impact to public health or safety.
 - Precedence for an administrative TS at the Department of Energy ISFSIs for Fort St. Vrain, Three Mile Island-2, and Idaho Spent Fuel Facility.
- **Reductions in commitments would be defined in QA implementing procedures.**
 - Same scope of changes allowed by 10 CFR 71.106 and 10 CFR 50.54(a)(3) and (4).

New Proposed Administrative TS

The following is the new proposed administrative TS:

- **TS 5.1.7 Quality Assurance Program Changes**
 - a. Changes to the Quality Assurance Program shall be reviewed and approved in accordance with administrative procedures.
 - b. Changes may be made to the Quality Assurance Program without prior NRC approval provided the changes do not:
 - Reduce the commitments in the quality assurance program previously approved by the NRC.
 - Involve a change to the Humboldt Bay ISFSI License or Technical Specifications.
 - c. Changes made to the Quality Assurance Program without prior NRC approval shall be submitted to the NRC consistent with the frequency in 10 CFR 72.70(c)(6).
 - d. Proposed changes which do not meet the criteria in 5.1.7.b shall be approved by the NRC prior to implementation.



Feedback on New Proposed Administrative TS

- **Based on the background, proposed administrative TS, and QA plan change mechanisms presented, PG&E would like to discuss the following:**
 - **NRC concerns with reviewing the proposed administrative TS**
 - **Additional details required to support review of the proposed administrative TS**

Additional Questions or Feedback on Proposed Technical Specification Changes



Precedent

The following precedent was reviewed as part of developing the proposed changes:

- **Trojan ISFSI (License Conditions 2, 10, and 15*)**
- **Rancho Seco (License Conditions 2, 10, 13, 15*, and 17)**
- **Fort St. Vrain, Three Mile Island-2, Idaho Spent Fuel Facility (proposed TS 5.1.7)**

*Note – Rancho Seco and Trojan referenced as precedent for having a site-specific Part 72 license with no similar emergency plan license condition.



Timeline for HB ISFSI LAR

- **PG&E is currently planning to submit the HB ISFSI LAR in 4Q 2021.**

Thank You

