



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

May 23, 2024

Paula Gerfen  
Senior Vice President, Generation, and  
Chief Nuclear Officer  
Pacific Gas and Electric Company  
Diablo Canyon Power Plant  
Mail Code 104/6/608  
P.O. Box 56  
Avila Beach, CA 93424

SUBJECT: SAFETY EVALUATION REPORT FOR THE PACIFIC GAS AND ELECTRIC  
COMPANY HUMBOLDT BAY INDEPENDENT SPENT FUEL STORAGE  
INSTALLATION QUALITY ASSURANCE PLAN HBI-L6 REVISION 1 (CAC NO.  
001028)

Dear Paula Gerfen:

By letter dated July 19, 2022, Pacific Gas and Electric Company (PG&E) submitted Revision 1 to HBI-L6, "Humboldt Bay Independent Spent Fuel Storage Installation Quality Assurance Plan," for U.S. Nuclear Regulatory Commission (NRC) review and approval under Title 10 of the *Code of Federal Regulations* (10 CFR) Part 72. (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22200A242), supplemented by responses to NRC requests for additional information dated on February 16, 2023 (ML23047A366), and June 6, 2023 (ML23157A305).

As a result of our review of the proposed Revision 1 of the Humboldt Bay Independent Spent Fuel Storage Installation (ISFSI) quality assurance plan (QAP), NRC staff prepared a safety evaluation report (SER) to document the independent verification against the requirements of Title 10 of the *Code of Federal Regulation* (10 CFR) Part 72. The SER in Enclosure 1 contains information regarding the scope of the staff's review and our conclusions for the Humboldt Bay ISFSI QAP, HBI-L6, Revision 1. The staff found that the Humboldt Bay Part 72 ISFSI QAP meets the requirements of 10 CFR Part 72, subpart G, "Quality Assurance."

If you have any questions regarding this approval of the QAP, please contact me at (301) 415-6004 or Raju Patel at (301) 415-3511.

Sincerely,



Signed by Rodriguez-Luccioni, Hector  
on 05/23/24

Hector Rodriguez-Luccioni, Chief  
Inspection and Oversight Branch  
Division of Fuel Management  
Office of Nuclear Material Safety  
and Safeguards

Docket No. 72-27  
CAC No. 001028

Enclosure:  
Safety Evaluation Report

SUBJECT: SAFETY EVALUATION REPORT FOR THE PACIFIC GAS AND ELECTRIC COMPANY HUMBOLDT BAY INDEPENDENT SPENT FUEL STORAGE INSTALLATION QUALITY ASSURANCE PLAN HBI-L6 REVISION 1 (CAC NO. 001028) DATED May 23, 2024

**DISTRIBUTION:**

DFM r/f                      NMSS r/f                      RidsRgnR4MailCenter Resource  
RidsRgn2MailCenter Resource                      RidsNrrPMDiabloCanyon Resource

**ADAMS Accession No.: ML24121A280**

<b>OFFICE</b>	DFM/IOB	E	DFM	E	DFM/IOB	E
<b>NAME</b>	RPatel		WWheatley		HRodriguez	
<b>DATE</b>	5/2/2024		5/3/2024		5/23/2024	

**OFFICIAL RECORD COPY**



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

**SAFETY EVALUATION REPORT**  
**Docket No. 07200027**  
**Humboldt Bay Independent Spent Fuel Storage Installation Quality Assurance Plan**

## Introduction

By letter dated July 19, 2022, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22200A242), as supplemented on February 16, 2023 (ML23047A366), and June 6, 2023 (ML23157A305), in responses to U.S. Nuclear Regulatory Commission (NRC) requests for additional information (ADAMS Accession No. ML22340A537), Pacific Gas and Electric Company (PG&E) (the licensee) submitted Revision 1 to HBI-L6, "Humboldt Bay Independent Spent Fuel Storage Installation (ISFSI) Quality Assurance Plan (QAP)," to the NRC for review and approval.

The NRC staff (the staff) reviewed the application, including relevant supplemental information in response to the NRC request for additional information (RAI), using the guidance in NUREG-1567, "Standard Review Plan for Spent Fuel Dry Storage Facilities," Section 12, "Quality Assurance Evaluation," dated March 2000 (ML003686776). Based on the statements and representations in the QAP Description, as supplemented, the staff concluded that the package meets the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater than Class C Waste," subpart G, "Quality Assurance."

The following sections include the staff's evaluation in the areas related to the review.

## REGULATORY BASIS

The NRC's regulation 10 CFR 72.24(n) has requirements for each application for a license under Part 72 to include a description of the QA program that satisfies the requirements of subpart G. In addition, 10 CFR 72.56 requires, in part, whenever a holder of a specific license desires to amend the license (including a change to the license conditions), an application for an amendment shall be filed with the Commission fully describing the changes desired and the reasons for such changes.

Section 72.140, "Quality Assurance Requirements," of subpart G, establishes the QA requirements for the design, purchase, fabrication, handling, shipping, storing, cleaning assembly, inspection, testing, operation, maintenance, repair, modification of structures, systems, and components, and decommissioning that are important to safety. Section 72.144, "Quality Assurance Program," of subpart G, establishes requirements for indoctrination, and training of personnel. Section 72.144 states, in part, that, "The licensee, applicant for licensee, certificate holder, and applicant for a Certificate of Compliance shall provide for indoctrination and training of personnel performing activities affecting quality as necessary to assure that suitable proficiency is achieved and maintained."

The regulation in 10 CFR 72.24(h) and (n) requires the safety analysis report for a proposed ISFSI or Monitored Retrievable Storage Installation for the receipt, handling, packaging, and storage of spent fuel, high-level radioactive waste, and/or reactor-related greater than Class C waste, to include information on the planned managerial and administrative controls that would ensure safe operation of the ISFSI or Monitored Retrievable Storage facility. The information on the controls shall also include a discussion on how the applicable requirements of subpart G will be satisfied.

## **TECHNICAL EVALUATION**

The purpose of this evaluation is to review and evaluate the proposed changes made in Revision 1 to HBI-L6, "Humboldt Bay ISFSI Quality Assurance Plan" to assess whether the HB ISFSI QAP as written continues to comply with the requirements of 10 CFR Part 72, subpart G.

The staff reviewed the application, including relevant supplemental information, using the guidance in NUREG-2215, "Standard Review Plan for Spent Fuel Dry Storage Systems, and Facilities," Chapter 15, "Quality Assurance Evaluation," dated April 2020 (ML20121A190).

The proposed changes made under Revision 1 to HBI-L6, "Humboldt Bay Independent Spent Fuel Installation Quality Assurance Plan," are as follows:

1. Section 1.3, "Organization Responsibilities," was revised to change the title "Senior Vice President, Generation and Chief Nuclear Officer" to "Chief Nuclear Officer (CNO)," without any changes to the responsibilities, authorities, and duties of the CNO performing activities affecting quality.
2. Section 2.6.2, "Staff Qualifications," revise the Radiation Protection Manager (RPM) qualification (experience and training) requirements from Regulatory Guide (RG) 1.8, Revision 2, to RG 1.8, Revision 4. The licensee provided detail justification on the changes to the RPM qualification and training requirements indicating that these changes are not impacted by the transition from RG 1.8 Revision 2 to Revision 4. The licensee in their justification stated that HB ISFSI being not an operating power plant, onsite radiation protection (RP) is limited and mostly performed by Diablo Canyon Power Plant (DCPP) radiation staff quarterly, annually, and once 5 years for cask inspections. The licensee stated that the focus of RP experience is related to As Low As Reasonably Achievable, radiation material storage, handling, and shipping, environmental monitoring, and related NRC regulations, and licensing. The licensee further stated that the periodic onsite RP support is considered sufficient to ensure the RPM is knowledgeable of characteristics and challenges to implement the limited RP activities described in HB ISFSI QAP and RP program during long-term storage. In addition, the licensee stated that, the staff at the HB ISFSI performing activities affecting quality is provided with general site awareness training (e.g., emergency plan, security, site operations), therefore, the transition from Revision 2 to Revision 4 of the RG 1.8, has no impact on the RPM general training requirements at the HB ISFSI.
3. Relocated the RPM qualification and training guidance from the HB ISFSI QAP to the Final Safety Analysis Report (FSAR), Chapter 9.
4. Section 12.1, "Control of Measuring and Test Equipment," was revised in response to staff's RAI, to include measures to ensure that measuring, and test equipment shall be controlled,

calibrated, and periodically adjusted by DCPD organizations in accordance with an NRC approved quality assurance program.

## **EVALUATION FINDINGS**

The staff reviewed and evaluated licensee's proposed changes to the QAP and concluded that it satisfied the requirements of 10 CFR Part 72, subpart G. The staff assessed that:

1. The licensee maintained the responsibilities, authorities, and duties of the CNO performing activities affecting quality.
2. The licensee provided reasonable justification that support the change to the RPM qualification and training requirements such that the changes are not impacted by the transition from RG 1.8 Revision 2 to Revision 4.
3. The licensee relocation of the RPM qualification and training guidance from the QAP to SAR Chapter 9, to be administrative.
4. The licensee established measures to ensure measuring and test equipment are controlled, calibrated, and adjusted by qualified personnel using qualified procedures, will comply with the requirements of 10 CFR Part 72, subpart G;
5. The QA program satisfied the requirements of 10 CFR 72.24(n).

## **REFERENCES**

1. PG&E Letter HIL-23-006, "Revised Response to NRC Request for Additional Information on Revision 1 to the Humboldt Bay ISFSI Quality Assurance Plan," dated June 6, 2023, (ML23157A305).
2. PG&E Letter, HIL-23-001, "Response to NRC Request for Additional Information on Revision 1 to the Humboldt Bay ISFSI Quality Assurance Plan," dated February 16, 2023 (ML23047A366).
3. NRC Letter, Humboldt Bay Independent Spent Fuel Storage Installation Revision 1 to Humboldt Bay ISFSI Quality Assurance Plan," dated December 16, 2022 (ML22340A535).
4. PG&E Letter HIL-22-004, Revision 1 to Humboldt Bay ISFSI Quality Assurance Plan," dated July 19, 2022 (ML22200A242).
5. NUREG-2215 "Standard Review Plan for Spent Fuel Dry Storage Systems and Facilities," Chapter 15, "Quality Assurance Evaluation," dated April 2020 (ML20121A190).

## **CONCLUSION**

Based on the evaluation of the proposed changes to the QAP, the staff concluded that the Humboldt Bay ISFSI QAP, HBI-L6, Revision 1, dated June 6, 2023, is acceptable and in conformance with the applicable requirements of 10 CFR Part 72, subpart G.