UNITED STATES

NUCLEAR REGULATORY COMMISSION

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SAFETY EVALUATION REPORT
HUMBOLDT BAY
INDEPENDENT SPENT FUEL STORAGE INSTALLATION
SPECIAL NUCLEAR MATERIALS LICENSE NO. 2514
AMENDMENT NO. 5 AND EXEMPTION

1 INTRODUCTION

This safety evaluation report (SER) documents the U.S. Nuclear Regulatory Commission (NRC) staff review and evaluation of a license amendment request (LAR) (Agency Document Access Management System (ADAMS) Accession No. ML21348A389) to Special Nuclear Material (SNM) License No. 2514 for the Humboldt Bay Independent Spent Fuel Storage Installation (ISFSI). By letter dated December 14, 2021, Pacific Gas and Electric Company (PG&E, the licensee) submitted a LAR to the NRC in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR), Section 72.56, "Application for amendment of license." The LAR proposes to delete and make administrative changes to certain license conditions, revise certain technical specifications that are no longer applicable to the Humboldt Bay ISFSI, and add a new administrative technical specification concerning the processing of administrative changes to the Humboldt Bay ISFSI's quality assurance (QA) program.

The NRC staff evaluated the requested changes in the LAR to assess whether the Humboldt Bay ISFSI continues to meet the applicable requirements of 10 CFR Part 72 for the independent storage of spent fuel and of 10 CFR Part 20 for radiation protection. Staff followed the guidelines in NUREG-2215, "Standard Review Plan for Spent Fuel Dry Storage Systems and Facilities," in its evaluation. The NRC staff evaluated the proposed changes to License No. SNM-2514 in PG&E's amendment request.

In addition to the changes proposed by the licensee, the staff evaluated removal of License Condition 18, which requires the licensee to submit an updated final safety analysis report (UFSAR) within 90 days of the NRC's issuance of the renewed license, which occurred on June 10, 2020. Except for this license condition, the staff's evaluation did not reassess previously approved portions of the license, technical specifications (TS), the UFSAR, or those portions of the UFSAR modified by PG&E as allowed by 10 CFR 72.48 which are not associated with this amendment request.

With respect to the licensee's request to revise TS 5.1.2.a, "Radioactive Effluent Control Program," discussed below, the staff determined that the requested change requires granting an exemption from 10 CFR 72.44(d)(3) pursuant to 10 CFR 72.7. The staff's evaluation of the necessary exemption is also discussed below.

The staff reviewed the LAR and the justifications for the requested changes. As described below, the NRC staff finds that the requested amendment to License No. SNM-2514 for the Humboldt Bay ISFSI meets the regulatory requirements of 10 CFR Part 72 based on the statements and representations in the application.

2 SCOPE OF REVIEW

In the LAR, PG&E proposed changes to the following provisions of License No. SNM-2514 and the technical specifications. The specific changes to each provision are further described with the staff evaluations in section 3.0 of this SER.

2.1 Proposed Changes to License No. SNM-2514

a. License Information Block 2 and License Condition 10 (changes). PG&E proposes deleting references to the Humboldt Bay Power Plant (HBPP) site in the Humboldt Bay ISFSI license.

b. License Conditions 13 and 17 (deletion). PG&E proposes that License Conditions 13 and 17 be removed from the Humboldt Bay ISFSI license since these conditions have been satisfied. License Condition 13 references HBPP fuel and cask movement activities that were performed in the HBPP refueling building. License Condition 17 references test requirements that apply prior to loading spent fuel into spent fuel storage casks (SFSCs).

c. License Condition 14 (deletion). PG&E proposes that License Condition 14 be deleted from the Humboldt Bay ISFSI license since the condition has been satisfied. License Condition 14 requires that PG&E submit, for NRC approval, a QA Program for the Humboldt Bay ISFSI that satisfies 10 CFR Part 72, Subpart G, “Quality Assurance,” prior to the termination of the 10 CFR Part 50 license for HBPP, Unit 3.

d. License Condition 15 (deletion). PG&E proposes that License Condition 15 be removed from the Humboldt Bay ISFSI license since the condition restates an NRC requirement. License Condition 15 states that PG&E shall follow the Humboldt Bay ISFSI Emergency Plan.

e. License Condition 18 (deletion). PG&E did not propose to delete License Condition 18. Instead, the staff identified and evaluated deletion of this license condition on its own initiative. License Condition 18 requires that PG&E update its UFSAR with certain information following renewal of the Humboldt Bay ISFSI license. PG&E had completed the commitments required in the condition.

2.2 Proposed Changes to Technical Specifications

In the LAR, PG&E proposed to revise the HB ISFSI technical specifications. The changes include deleting references to regulations and HBPP structures and activities that are no longer applicable due to the decommissioning status of HBPP. The Humboldt Bay ISFSI UFSAR, revision 10, describes the HBPP as a PG&E-owned site that included five electric generation units that included one nuclear unit, Unit 3, that operated as a boiling water reactor for approximately 13 years before being shut down in July 1976. The Humboldt Bay ISFSI stores spent nuclear fuel and greater than Class C (GTCC) waste from HBPP. Also, PG&E proposed to delete from the Humboldt Bay ISFSI TS references to Humboldt Bay ISFSI-related activities, Limiting Conditions for Operation (LCOs), and surveillances that are no longer applicable

because all spent nuclear fuel and GTCC waste has been transferred to the Humboldt Bay ISFSI.

a. Section 3.1.1, Multi-Purpose Canister (MPC-HB) (revision for partial deletion). PG&E proposes to revise TS 3.1.1 to remove Condition D. Condition D requires removal of all spent fuel assemblies from the MPC when the required actions and associated completion times for Conditions A, B, or C are not met.

b. Section 3.1.3, Fuel Cool-Down (deletion). PG&E proposes to delete TS 3.1.3 in its entirety since it is no longer applicable. Wet unloading of an MPC is no longer possible since the HBPP spent fuel pool was decommissioned.

c. Section 4.0, Design Features

    - TS 4.3.1 (revision). PG&E proposes to revise TS 4.3.1, “Cask Transporter,” to remove references to the power plant and the rail dolly used to move the SFSC to and from the refueling building.
    - TS 4.3.3 (revision). PG&E proposes to revise TS 4.3.3, “SFSC Load Handling Equipment,” to remove the reference to 10 CFR Part 50.

d. Section 5.0, Administrative Controls

    - TS 5.1.2.a (revision). PG&E proposes to revise TS 5.1.2.a, under “Radioactive Effluent Control Program,” to clarify that there are no liquid or gaseous radioactive effluents emitted from the Humboldt Bay ISFSI.
    - TS 5.1.2.b (deletion). PG&E proposes to delete TS 5.1.2.b. Verifications of the OVERPACK and GTCC cask surface contamination are no longer applicable after spent nuclear fuel and GTCC waste have been transferred to the ISFSI.
    - TS 5.1.3 (deletion). PG&E proposes to delete TS 5.1.3, “MPC-HB and SFSC Loading, Unloading, and Preparation Program.” The described activities were associated with fuel movement and cask handling operations in the HBPP refueling building and are no longer applicable.
    - TS 5.1.5 (revision). PG&E proposes to revise TS 5.1.5, “Cask Transportation Evaluation Program,” to remove references to the HBPP refueling building.
    - TS 5.1.6 (deletion). PG&E proposes to delete TS 5.1.6, “GTCC Cask Loading and Preparation Program.” These activities were associated with GTCC cask operations in the HBPP refueling building.
    - TS 5.1.7 (add new). PG&E proposes to add TS 5.1.7, “Quality Assurance Program Changes,” to describe the proposed process for making administrative changes to the Humboldt Bay ISFSI 10 CFR Part 72 QA Program that do not require prior NRC approval.

3 STAFF REVIEW AND ANALYSIS

3.1 Technical Evaluation of Proposed Changes

3.1.1 Proposed Changes to License No. SNM-2514

3.1.1.1 License Information Block 2 and License Condition 10 (Revision)

PG&E proposed deleting references to the HBPP site in the Humboldt Bay ISFSI License.

- License Information Block 2 lists the address and location of the Humboldt Bay ISFSI as the Humboldt Bay Power Plant. PG&E proposed changing "Humboldt Bay Power Plant" to "Humboldt Bay Independent Spent Fuel Storage Installation."

- License Condition 10 states "…the Humboldt Bay ISFSI located on the Humboldt Bay Power Plant site in Humboldt County,…" The revised License Condition 10 would be "…the Humboldt Bay ISFSI located in Humboldt County,…"

The Humboldt Bay ISFSI UFSAR, revision 10, describes the HBPP as a PG&E-owned site that included five electric generation units that included one nuclear unit, Unit 3, that operated as a boiling water reactor for approximately 13 years before being shut down in July 1976. The staff reviewed the changes and determined that the changes were appropriate because the licensee decommissioned HBPP and, in November 2021, NRC terminated the HBPP 10 CFR Part 50 license. The proposed revisions to License Information Block 2 and License Condition 10 are administrative and have no impact on the safe storage of spent nuclear fuel and GTCC waste at the Humboldt Bay ISFSI. For these reasons, the staff finds that the changes are acceptable.

3.1.1.2 License Conditions 13 and 17 (Deletion)

In the LAR, PG&E proposed that License Conditions 13 and 17 be removed from the Humboldt Bay ISFSI License since these conditions have been satisfied. License Condition 13 references HBPP fuel and cask movement activities that were once performed in the HBPP refueling building. License Condition 17 references certain test requirements that were needed to be performed prior to loading spent fuel into SFSCs.

PG&E stated that activities described in License Conditions 13 and 17 (which were completed in 2008 and 2013, respectively) are no longer applicable since all of the HBPP spent nuclear fuel and GTCC waste has been transferred to and is now stored in the Humboldt Bay ISFSI. In addition, all HBPP nuclear structures, systems, and components associated with spent fuel and GTCC waste cask loading, movement, and handling have been decommissioned and removed from the HBPP site.

The staff reviewed the changes and determined that deletion of License Conditions 13 and 17 is administrative since License Conditions 13 and 17 have been satisfied. The staff also determined that License Conditions 13 and 17 are no longer applicable since all spent nuclear fuel and GTCC waste has been transferred to and is now stored in the Humboldt Bay ISFSI. For these reasons, the staff finds deletion of License Conditions 13 and 17 is acceptable.

3.1.1.3 License Condition 14 (Deletion)

PG&E proposed to delete License Condition 14, which requires that PG&E submit, for NRC approval, a QA Program for the Humboldt Bay ISFSI that satisfies 10 CFR Part 72, Subpart G, prior to the termination of the 10 CFR Part 50 license for HBPP, Unit 3. In February 2019, PG&E

submitted Humboldt Bay ISFSI QA Plan Revision 0 to the NRC. The NRC staff concluded that the QA Plan met the requirements in 10 CFR Part 72 Subpart G, and the staff approved the plan on April 17, 2020.

The staff reviewed the proposed deletion and determined that, because PG&E submitted Revision 0 of the Humboldt Bay ISFSI QA Plan and the NRC approved the plan, License Condition 14 has been met, its deletion is administrative, and the change has no impact on the safe storage of spent nuclear fuel and GTCC waste at the Humboldt Bay ISFSI. For these reasons, the staff finds deletion of License Condition 14 acceptable.

3.1.1.4 License Condition 15 (Deletion)

In the LAR, PG&E proposed to delete License Condition 15. This license condition states:

> The licensee shall follow the Humboldt Bay ISFSI Emergency Plan dated December 15, 2003, as revised or supplemented on October 1, 2004, March 27, 2015, and as further supplemented and revised in accordance with 10 CFR 72.44(f).

The licensee's justification for eliminating this license condition is that it is duplicative of current regulations for the Humboldt Bay ISFSI and that it is administrative in nature. Additionally, PG&E states that 10 CFR 72.44(f) continues to be in effect regardless of whether the license condition exists. 10 CFR 72.44(f) states:

> A licensee shall follow and maintain in effect an emergency plan that is approved by the Commission. The licensee may make changes to the approved plan without Commission approval only if such changes do not decrease the effectiveness of the plan. Within six months after any change is made, the licensee shall submit, in accordance with § 72.4, a report containing a description of any changes made in the plan addressed to Director, Division of Fuel Management, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, with a copy to the appropriate NRC Regional Office shown in appendix D to part 20 of this chapter. Proposed changes that decrease the effectiveness of the approved emergency plan must not be implemented unless the licensee has received prior approval of such changes from the Commission.

Given the redundant nature of License Condition 15 and that 10 CFR 72.44(f) remains in effect regardless of the existence of the license condition, the NRC staff finds that deletion of License Condition 15 for the Humboldt Bay ISFSI is acceptable, its deletion is administrative, and the change has no impact on the safe storage of spent nuclear fuel and GTCC waste at the Humboldt Bay ISFSI.

3.1.1.5 License Condition 18 (Deletion)

Although PG&E did not request modification to License Condition 18, the staff evaluated whether License Condition 18 may be deleted from the license. This license condition states:

> Within 90 days after issuance of the renewed license, PG&E shall submit an updated final safety analysis report (FSAR) to the U.S. Nuclear Regulatory Commission (NRC), in accordance with 10 CFR 72.70(a)(1) and (2). PG&E shall continue to update the FSAR, pursuant to the requirements in 10 CFR 72.70(a), (b), and (c). PG&E will follow the procedures in 10 CFR 72.4 for submitting

the FSAR. The updated FSAR shall reflect the information provided in Appendix D of the Humboldt Bay ISFSI License Renewal Application, Revision 4, dated November 4, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML19337C634). The licensee may make changes to the updated FSAR, consistent with 10 CFR 72.48(c).

The staff considered whether PG&E completed the actions required by License Condition 18 and whether the license condition contains any remaining requirements. With regard to the first required action involving submittal of an UFSAR, in August 2020, PG&E submitted the Humboldt Bay (HB) ISFSI UFSAR, revision 10 (Accession No. ML20281A414) to reflect the information provided in appendix D of the HB ISFSI License Renewal Application, Amendment No. 4. The staff reviewed HB UFSAR revision 10, section 9.4.3, “License Renewal Aging Management," and determined that PG&E added the aging management information cited in the license condition. Since NRC issued the renewed license on June 10, 2020, and PG&E submitted its UFSAR on September 3, 2020, PG&E submitted the UFSAR within the 90-day period cited in License Condition 18.

The staff identified that, during incorporation of appendix D into the UFSAR revision 10, an editorial error was made by not changing the heading of the middle column of tables 3.4-2 and 3.4-3 from “Design Value” to “Design Evaluation Value.” The staff informed PG&E of this error, and PG&E advised the NRC that it will correct the headings in the next biennial UFSAR submission to the NRC. However, since this is an editorial error, it does not impact the staff’s determination that this aspect of License Condition 18 has been completed.

With regard to the requirement in License Condition 18 that PG&E continue to update the UFSAR pursuant to the requirements in 10 CFR 72.70(a), (b), and (c), these requirements continue to be in effect regardless of the removal of License Condition 18 because they are NRC requirements. Similarly, the provision in License Condition 18 that permits the licensee to make changes to the UFSAR also remains in effect regardless of whether License Condition 18 is removed because the provision is consistent with 10 CFR 72.48(c).

Given that License Condition 18 has been completed by PG&E and that 10 CFR 72.70(a), (b), (c) and 10 CFR 72.48(c) are NRC requirements and apply to the Humboldt Bay ISFSI regardless of the existence of this license condition, the NRC staff finds deletion of License Condition 18 for the Humboldt Bay ISFSI is acceptable, its deletion is administrative, and the change has no impact on the safe storage of spent nuclear fuel and GTCC waste at the Humboldt Bay ISFSI.

3.1.2 Proposed Changes to Technical Specifications

3.1.2.1 Technical Specification Section 3.1.1, Multi-Purpose Canister (MPC-HB) (Deletion of Condition D)

In Humboldt Bay ISFSI License No. SNM-2514, TS 3.1.1 includes LCO 3.1.1: “The MPC-HB shall be dry and helium filled.” In its LAR, the licensee proposed to revise technical specification (TS) 3.1.1, “Multi-Purpose Canister (MPC-HB)” to delete Condition D. Condition D requires removal of all spent fuel assemblies from the MPC in 30 days when required actions and associated completion times for Conditions A, B, or C are not met. In the LAR, PG&E stated that fuel movement and cask handling operations were performed in the HBPP refueling building and spent fuel pool in accordance with the HBPP 10 CFR Part 50 License, and that, in 2013, the Humboldt Bay ISFSI loading operations were completed. Subsequently, the HBPP refueling building and spent fuel pool were decommissioned and demolished, and the 10 CFR Part 50

license has been terminated. PG&E stated that, with the spent fuel pool no longer available, the capability to unload the MPC contents no longer exists.

With respect to PG&E's proposed revision to TS 3.1.1, the staff agrees that because all Humboldt Bay ISFSI loading operations have been completed, the capability for PG&E to unload the MPC contents no longer exists. Therefore, the staff finds that Condition D of TS 3.1.1 is no longer applicable, and deletion of Condition D of TS 3.1.1 is acceptable.

3.1.2.2 Technical Specification Section 3.1.3, Fuel Cool-Down (Deletion)

PG&E's LAR proposed to delete TS 3.1.3, "Fuel Cool-Down," in its entirety since it is no longer applicable. The licensee stated that wet unloading of an MPC is no longer possible since the HBPP spent fuel pool is decommissioned and that the fuel cool-down TS was applicable during wet "UNLOADING OPERATIONS." Wet unloading of an MPC would have been performed in the spent fuel pool in accordance with the HBPP 10 CFR Part 50 License. The spent fuel pool has been decommissioned and the 10 CFR Part 50 license has been terminated. Therefore, PG&E states that this TS is no longer applicable and can be removed.

With respect to the deletion of TS 3.1.3, the staff agrees that the ISFSI activities to place HBPP spent fuel assemblies in a safe storage condition have been completed and, therefore, there is no need to perform any fuel cool down activities in a spent fuel pool. For these reasons, the staff finds that deletion of TS 3.1.3 is acceptable.

3.1.2.3 Technical Specification Section 4.3.1, Cask Transporter, and Section 4.3.3, Spent Fuel Storage Casks (SFSC) Load Handling Equipment (Revision)

In its LAR, PG&E proposed to revise TS 4.3.1, "Cask Transporter," and TS 4.3.3, "SFSC Load Handling Equipment," to remove references to HBPP structures, systems, and components (SSCs), and the reference to 10 CFR Part 50.

The licensee proposed to revise TS 4.3.1, "Cask Transporter," to remove references to HBPP and the plant rail dolly used to move the SFSCs to and from the refueling building. PG&E stated that spent nuclear fuel and GTCC waste have been transferred to the Humboldt Bay ISFSI and there are no remaining structures at HBPP to support cask transport as described in TS section 4.3. The LAR states that references to the plant and the rail dolly are, therefore, no longer applicable, and further, the proposed changes are administrative and have no impact on the safe storage of spent nuclear fuel and GTCC waste.

PG&E proposed to revise TS 4.3.3, "SFSC Load Handling Equipment," to remove the reference to 10 CFR Part 50. The licensee stated that the HBPP 10 CFR Part 50 License was terminated by the NRC, and references to 10 CFR Part 50 no longer apply. PG&E stated that the proposed change is administrative and has no impact on the safe storage of spent nuclear fuel and GTCC waste.

PG&E proposed the following revisions:

> 4.3.1 Cask Transporter
>
> A cask transporter is used to transport the SFSC ~~between the power plant and the ISFSI~~. The requirements for the cask transporter are as follows:
>
> a. ~~Except for the period of time in which the loaded SFSC is being moved on the rail dolly,~~ TRANSPORT OPERATIONS shall be conducted using the cask transporter.
>
> .

4.3.3 SFSC Load Handling Equipment

Lifting of a SFSC ~~outside of structures governed by 10 CFR 50~~ shall be performed with load handling equipment that is designed, fabricated, inspected, maintained, operated, and tested in accordance with the applicable guidelines of NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants".

The specific text deletions to TS 4.3.1 and 4.3.3 proposed by PG&E identify HBPP and the rail dolly. Both HBPP and the rail dolly were subject to 10 CFR Part 50 regulations and the HBPP Part 50 license until the NRC terminated PG&E's Part 50 license for HBPP in November 2021. Therefore, references to HBPP, HBPP SSCs (including the rail dolly), and 10 CFR Part 50 are no longer applicable to the Humboldt Bay ISFSI, and deleting those references is an administrative change. For these reasons, the staff finds that the proposed revisions to TS 4.3.1 and 4.3.3 have no impact on the safe storage of spent nuclear fuel and GTCC waste and are acceptable.

3.1.2.4 Technical Specification Section 5.0, Administrative Controls

3.1.2.4.1 Technical Specification Section 5.1.2 a. and b., Radioactive Effluent Control Program (Revision)

In its LAR, PG&E proposed to revise TS 5.1.2.a, under "Radioactive Effluent Control Program," to clarify that there are no liquid or gaseous radioactive effluents emitted from the Humboldt Bay ISFSI and to delete TS 5.1.2.b. The licensee proposed the following specific changes:

5.1.2 Radioactive Effluent Control Program

a. This program is established and maintained to implement the requirements of 10 CFR 72.44(d) or 72.126, as appropriate. <u>There are no radioactive gaseous or liquid effluents released from the Humboldt Bay Independent Spent Fuel Storage Installation (ISFSI) during operation. Therefore, a radioactive effluent monitoring system is not required, routine monitoring for effluents is not performed, and the reporting requirements of 10 CFR 72.44(d)(3) do not apply.</u>

b. ~~This program will provide limits on surface contamination of the OVERPACK and GTCC cask and verification of meeting those limits prior to removal of a loaded OVERPACK or GTCC cask from the refueling building.~~ Deleted

In the LAR, PG&E proposed to add descriptive information to TS 5.1.2.a to clarify there are no radioactive gaseous or liquid effluents released from the Humboldt Bay ISFSI and ensure consistency between section 5.1.2 and the Humboldt Bay ISFSI Updated Final Safety Analysis Report, section 7.7 (ADAMS Accession No. ML20281A414). The Humboldt Bay ISFSI UFSAR section 7.7 states that no liquid or gaseous radioactive effluents are released from the Humboldt Bay ISFSI; a radioactive effluent monitoring system is not required; routine monitoring for effluents is not performed; and the reporting requirements of 10 CFR 72.44(d)(3) do not apply.

The licensee noted that, in the "Humboldt Bay Independent Spent Fuel Storage Installation Safety Evaluation Report" (SER, ADAMS Accession No. ML053140041), dated November 17, 2005, section 11.1.4.2, the NRC acknowledged that the Humboldt Bay ISFSI Environmental Monitoring Program includes the use of dosimetry to determine dose rates at the restricted area and owner-controlled area boundaries, and that compliance with the dose limits in 10 CFR 72.104(a) will be demonstrated through the Humboldt Bay ISFSI Environmental Monitoring Program using direct radiation measurements. PG&E states that the NRC also indicated that no

additional effluent monitoring is required because no radioactive effluents are expected during ISFSI operations.

For TS 5.1.2.a, the proposed change includes clarifying that a radioactive effluent monitoring system is not required, routine monitoring for effluents is not performed, and the reporting requirements of 10 CFR 72.44(d)(3) do not apply. Because the change to TS 5.1.2.a adds a statement that the regulatory requirement for effluent reporting does not apply to the facility, this change requires granting an exemption from 10 CFR 72.44(d)(3) to PG&E. Although PG&E did not formally request an exemption for 10 CFR 72.44(d)(3), under 10 CFR 72.7, the NRC may grant exemptions upon its own initiative if the staff finds the exemption criteria are met. The staff's evaluation of the exemption declaring that the licensee is not required to meet the reporting requirements of 10 CFR 72.44(d)(3) appears in section 3.2 of this SER. As discussed below in the evaluation of the exemption in section 3.2 of this SER, the staff further modified TS 5.1.2.a to clarify issuance of the exemption, replacing the applicant's proposed language "the reporting requirements of 10 CFR 72.44(d)(3) do not apply," with "the licensee is exempted from the reporting requirements under 10 CFR 72.44(d)(3)."

Additionally, PG&E proposed to delete TS 5.1.2.b. In the LAR, the licensee stated that verifications of the OVERPACK and GTCC cask surface contamination are no longer applicable after spent nuclear fuel and GTCC waste have been transferred to the ISFSI and that the proposed changes are administrative and have no impact on the safe storage of spent nuclear fuel and GTCC waste.

For TS 5.1.2.b, this includes removing references related to surface contamination measurements taken before the fuel canisters are removed from the HBPP refueling building. The TS 5.1.2.b requirement no longer applies because the fuel canisters are already in storage underground at the ISFSI, and the HBPP refueling building has been decommissioned and no longer exists. For these reasons, the staff finds that the proposed revisions to TS 5.1.2.b is administrative, has no impact on the safe storage of spent nuclear fuel and GTCC waste, and is acceptable.

3.1.2.4.2 Technical Specification Section 5.1.3, MPC-HB and SFSC Loading, Unloading and Preparation Program (Deletion)

In its LAR, PG&E proposed to delete TS 5.1.3, "MPC-HB and SFSC Loading, Unloading, and Preparation Program." The licensee stated that the described activities were associated with fuel movement and cask handling operations in the HBPP refueling building and are no longer applicable. The licensee also stated that the proposed change is administrative and has no impact on the safe storage of spent nuclear fuel and GTCC waste.

TS 5.1.3 describes activities associated with fuel movement and cask handling operations in the HBPP refueling building. The program was established and maintained to implement the requirements in Humboldt Bay ISFSI UFSAR section 10.2, "Development of Operating Controls and Limits," for loading fuel and components into MPCs, unloading fuel and components from MPCs, and preparing the MPCs for storage in the SFSCs, and are no longer applicable. The HBPP refueling building has been decommissioned, and all spent nuclear fuel and GTCC waste has been transferred to the Humboldt Bay ISFSI. For these reasons, the staff finds that the proposed deletion is administrative, has no impact on the safe storage of spent nuclear fuel and GTCC waste, and is acceptable.

3.1.2.4.3 Technical Specification Section 5.1.5, Cask Transportation Evaluation Program (Revision)

In its LAR, PG&E proposed to revise TS 5.1.5, "Cask Transportation Evaluation Program," to remove references to the HBPP refueling building, as follows:

> 5.1.5 Cask Transportation Evaluation Program
>
> This program will evaluate and control the transportation of loaded SFSCs ~~between the HBPP Refueling Building and the ISFSI storage vault~~. Included in this program will be pre-transport evaluation and control during transportation of the following:
>
> - Transportation route road surface conditions.
> - Onsite hazards along the transportation route.
> - Security, including control of the 100 meter boundary.
> - Transporter control functions and operability.
> - Offsite marine hazards from barge transport.
> - Severe weather.

PG&E stated that the refueling building has been demolished and the transfer of spent nuclear fuel and GTCC waste to the ISFSI is complete. The licensee stated that the proposed deletion of the reference to the HBPP refueling building is administrative and has no impact on the safe storage of spent nuclear fuel and GTCC waste.

The staff reviewed PG&E's proposed revision to TS 5.1.5, which references transportation of spent fuel storage canisters "between the HBPP Refueling Building and the ISFSI storage vault." Since the HBPP Refueling Building mentioned in the TS no longer exists, transportation to and from that building is not possible, and referencing the building is unnecessary and erroneous. For these reasons, the staff finds that the proposed revision is administrative, has no impact on the safe storage of spent nuclear fuel and GTCC waste, and is acceptable.

3.1.2.4.4 Technical Specification Section 5.1.6, GTCC Cask Loading and Preparation Program (Deletion)

PG&E proposed to delete TS 5.1.6, "GTCC Cask Loading and Preparation Program." The licensee stated that the activities conducted under this program were associated with GTCC cask operations in the HBPP refueling building, that the refueling building has been demolished, and that the transfer of GTCC waste to the Humboldt Bay ISFSI is complete. The licensee also stated that TS 5.1.6 is no longer applicable, the proposed change is administrative, and the change has no impact on the safe storage of spent nuclear fuel and GTCC waste.

TS 5.1.6, which PG&E proposes to delete, was established and maintained to implement requirements of Humboldt Bay ISFSI UFSAR section 3.1, "Purposes of Installation," for loading a GTCC cask and preparing the GTCC cask for storage in the ISFSI. These TS activities were associated with GTCC cask operations in the HBPP refueling building. The refueling building has been decommissioned and the transfer of all GTCC waste to the Humboldt Bay ISFSI is complete. Therefore, TS 5.1.6 is no longer applicable and can be deleted. For these reasons, the staff finds that the proposed deletion is administrative, has no impact on the safe storage of spent nuclear fuel and GTCC waste, and is acceptable.

3.1.2.4.5 Technical Specification Section 5.1.7, Quality Assurance Program Changes

PG&E proposed to add new administrative program TS 5.1.7, “Quality Assurance Program Changes,” to describe a process that would allow PG&E to make certain changes to the Humboldt Bay ISFSI 10 CFR Part 72 quality assurance (QA) program without prior NRC approval. Currently, 10 CFR Part 72 requires prior NRC approval for all changes made to a previously approved ISFSI 10 CFR Part 72 QA Program. The NRC clarified this requirement in NRC Information Notice 2002-35, “Changes to 10 CFR Parts 71 and 72 Quality Assurance Programs,” dated December 20, 2002 (ML023520339).

PG&E proposed the following new section in TS 5.1.7:

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.

In its LAR, the licensee stated that the Humboldt Bay ISFSI was previously covered under a 10 CFR Part 50 QA program, that three Independent Management Reviews (IMRs) were performed over the past five years, and that the IMRs assessed the effectiveness of the Humboldt Bay ISFSI implementation of the QA Program. PG&E reviewed the IMR results to identify previous weaknesses with the implementation of the Humboldt Bay ISFSI's 10 CFR 50.54(a) process. The licensee also stated that it reviewed NRC inspection reports issued over the past three years and that, although certain issues were identified, there were no issues identified with the Humboldt Bay ISFSI’s implementation of the 10 CFR 50.54(a) process. PG&E subsequently concluded that obtaining prior NRC approval for changes to the Humboldt Bay ISFSI QA Program for which PG&E has determined that the changes do not reduce commitments, impact the ISFSI license, or impact safe operations is not efficient and unnecessarily increases the regulatory and administrative burden of the licensee and NRC staff.

PG&E’s LAR states that reductions in commitments are defined in the QA program’s implementing procedures. The scope of changes that will not be considered reductions in commitments will be consistent with the changes allowed by 10 CFR 71.106 and 10 CFR 50.54(a)(3).

PG&E had an NRC-approved Part 50, appendix B QA program through its HBPP Part 50 license until the license was terminated on November 18, 2021. Until that time, under 10 CFR 72.140(d), PG&E was allowed to apply its NRC-approved Part 50, appendix B QA program to

ISFSI activities. The PG&E Part 50 QA Program was subject to 10 CFR 50.54(a)(3), which allows Part 50 licensees to change their Part 50 appendix B QA programs without NRC approval if the change does not decrease the effectiveness of the program. Until November 2021, PG&E had many years of experience evaluating whether changes to its Part 50, appendix B QA program decreased the effectiveness of the HBPP QA program and whether the changes required prior NRC approval. PG&E historically submitted changes made to its Part 50, appendix B QA program under 10 CFR 50.54(a)(3). On November 18, 2021, the NRC terminated PG&E's Humboldt Bay Part 50 license, and accordingly, the Part 50 appendix B QA program, and PG&E now has only an NRC-approved Part 72 QA program for its ISFSI.

Under PG&E's proposed TS, if a proposed change is determined to not reduce the commitments in the QA program previously approved by the NRC and not involve a change to the Humboldt Bay ISFSI License or TS, NRC approval would not be required. The staff finds that because PG&E's changes to the Humboldt Bay ISFSI's QA Program shall be reviewed and approved in accordance with administrative procedures, because of PG&E's prior experience with its Part 50, appendix B QA program, and because Humboldt Bay ISFSI QA program changes are subject to NRC inspection at the site, there is low risk and safety significance associated with the possibility of PG&E not correctly evaluating a change to its current Part 72 QA program under the proposed 5.1.7 TS administrative control.

Additionally, the proposed TS would require changes made to the QA program without prior NRC approval to be submitted to the NRC consistent with the frequency in 10 CFR 72.70(c)(6). The NRC has approved similar TS provisions which address QA program changes in the licenses of the Idaho ISFSI (Docket 72-25, License No. SNM-2512), Fort Saint Vrain ISFSI (Docket 72-9, License No. SNM-2504), and Three Mile Island Unit 2 ISFSI (Docket 72-20, License No. SNM-2508). Since the QA program provision was incorporated into their respective licenses, these three licensees have submitted changes made to their QA programs without prior NRC approval consistent with the frequency in 10 CFR 72.70(c)(6). Accordingly, the staff concludes that PG&E's proposed TS regarding reporting changes to the NRC is consistent with past precedent and is acceptable.

For these reasons, the staff finds that the proposed TS 5.1.7 is of low risk and low safety significance to the safe storage of spent nuclear fuel and GTCC waste at the Humboldt Bay ISFSI and is acceptable.

3.2 Evaluation of Exemption

Pursuant to 10 CFR 72.7, the Commission may, upon application by any interested person or upon its own initiative, grant such exemptions from the requirements of the regulations in 10 CFR Part 72 as it determines are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. As discussed above in section 3.1.2.4.1 of this SER, the staff determined that revising TS 5.1.2.a to state that the effluent reporting requirements of 10 CFR 72.44(d)(3) do not apply to the HB ISFSI would require that NRC grant an exemption from 72.44(d)(3). Therefore, the staff evaluated the exemption to determine whether the granting of this exemption would meet the criteria specified in 10 CFR 72.7.

Section 72.44(d)(3) of 10 CFR requires:

> An annual report be submitted to the Commission in accordance with Sec. 72.4, specifying the quantity of each of the principal radionuclides released to the environment in liquid and in gaseous effluents during the previous 12 months of operation and such other information as may be required by the Commission to

estimate maximum potential radiation dose commitment to the public resulting from effluent releases. On the basis of this report and any additional information that the Commission may obtain from the licensee or others, the Commission may from time to time require the licensee to take such action as the Commission deems appropriate. The report must be submitted within 60 days after the end of the 12-month monitoring period.

Authorized by Law

The Commission has the legal authority to issue exemptions from the requirements of 10 CFR Part 72 as provided in 10 CFR 72.7. The NRC staff has determined that issuance of this exemption is consistent with the Atomic Energy Act of 1954, as amended, and not otherwise inconsistent with NRC regulations or other applicable laws. Therefore, issuance of the exemption is authorized by law.

Will Not Endanger Life or Property or the Common Defense and Security

Granting the exemption would relieve PG&E of the requirement to submit annual radiological effluent monitoring reports for the HB ISFSI. Under its current license and UFSAR, the HB ISFSI does not release effluents to the environment and PG&E does not conduct effluent monitoring. Therefore, there is no monitoring data to be submitted to the NRC in an annual effluent monitoring report. The change does not alter or impede the design, function, or operation of any ISFSI structure, system, or component associated with the facility's security and, therefore, does not affect any ISFSI equipment that is necessary to maintain a safe and secure status. In addition, the change has no impact on ISFSI security or safeguards. Not submitting an annual radiological effluent monitoring report, therefore, will not endanger life or property or the common defense and security.

Separate from the radiological effluent monitoring report required under 10 CFR 72.44(d)(3), PG&E currently conducts thermoluminescent dosimeter monitoring for the site and reports this monitoring data to the NRC in an annual radiological environmental monitoring report. PG&E submits these reports to demonstrate that it meets the requirements of 10 CFR 72.104, "Criteria for radioactive materials in effluents and direct radiation from an ISFSI or MRS." PG&E has recently submitted these reports on March 8, 2022, February 18, 2021, March 5, 2020, March 14, 2019, and April 26, 2018. In issuing this exemption, the NRC is not relieving PG&E of the requirements related to the thermoluminescent dosimeter monitoring under 10 CFR 72.104.

Otherwise in the Public Interest

Granting the exemption would relieve PG&E of the requirement to submit annual radiological effluent monitoring reports for the HB ISFSI. Because the HB ISFSI emits no effluents and conducts no effluent monitoring, submitting the annual effluent monitoring report imposes an administrative burden without providing a commensurate benefit to public health and safety or the environment. Relieving PG&E of the annual effluent monitoring report requirement would therefore be in the public interest because it would reduce the administrative burden on PG&E in making the report to the NRC, which, in turn, would preserve NRC staff resources because NRC will no longer have to receive, review, or inspect to the report that is not necessary for this facility. The NRC finds that the relief given would not impact public health and safety or the environment.

Accordingly, PG&E's proposed TS 5.1.2 a. is further revised by the NRC staff (staff's revisions in italics) to the following to reflect the issued exemption:

5.1.2 Radioactive Effluent Control Program

a. This program is established and maintained to implement the requirements of 10 CFR 72.44(d) or 72.126, as appropriate. There are no radioactive gaseous or liquid effluents released from the Humboldt Bay Independent Spent Fuel Storage Installation (ISFSI) during operation. Therefore, a radioactive effluent monitoring system is not required, routine monitoring for effluents is not performed, and the *licensee is exempted from the* reporting requirements *under~~of~~* 10 CFR 72.44(d)(3) ~~*do not apply*~~.

4 ENVIRONMENTAL REVIEW

The amendment to Humboldt Bay ISFSI License No. SNM-2514 includes removal or administrative revisions to certain license conditions, revisions to certain technical specifications that are no longer applicable to the Humboldt Bay ISFSI, and addition of a new administrative technical specification concerning the processing of administrative changes to Humboldt Bay ISFSI's quality assurance program. The staff determined that the changes proposed in the LAR, as well as the removal of License Condition 18, would not significantly change the types or significantly increase the amounts of any effluents that may be released offsite. In addition, the staff determined that there is no significant increase in individual or cumulative occupational radiation exposure. Further, the proposed changes do not involve construction of any kind, and therefore there is no significant construction impact. The proposed changes do not involve an increase in the potential for consequences from radiological accidents and the total offsite doses remain below the 10 CFR 72.104 limits and are considered acceptable. Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(11) and, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed amendment.

The exemption of the annual reporting requirements under 10 CFR 72.44(d)(3) to Humboldt Bay ISFSI License No. SNM-2514 would not significantly change the types or significantly increase the amounts of any effluents that may be released offsite. In addition, the staff determined that there is no significant increase in individual or cumulative occupational radiation exposure. Further, the proposed change does not involve construction of any kind, and therefore there is no significant construction impact. The exemption does not involve an increase in the potential for consequences from radiological accidents and the total offsite doses remain below the 10 CFR 72.104 limits and are considered acceptable. Accordingly, the exemption meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(11) and, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the exemption.

5 CONCLUSION

Staff reviewed the license amendment request for License No. SNM-2514 and independently considered removal of License Condition 18. Based on the information provided in the application and the staff's review, the staff concludes that License No. SNM-2514, as amended, meets the requirements of 10 CFR Part 72. Additionally, the staff concluded, pursuant to the requirements of 10 CFR 72.7, that an exemption from 10 CFR 72.44(d)(3) for the requirement to submit an annual radiological effluent release report is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest. Therefore, the staff grants PG&E an exemption from the requirement to submit an annual radiological effluent release report for the duration of the current license.

6 REFERENCES

Code of Federal Regulations, Title 10, Part 72, “Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater Than Class C Waste.”

Code of Federal Regulations, Title 10, Part 71, “Packaging and Transportation of Radioactive Material.”

Code of Federal Regulations, Title 10, Part 50, “Standards for Protection Against Radiation.”

NRC, “Standard Review Plan for Spent Fuel Dry Storage Systems and Facilities,” NUREG-2215, April 2020, ML20121A190.

NRC, “License for Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste,” License No. SNM-2514, Amendment No. 4, June 10, 2020, ML20161A027.

NRC, “Termination of Humboldt Bay Power Plant, Unit 3 Facility Operating License No. DPR-7,” November 18, 2021, ML21295A250.

NRC, "Control of Heavy Loads at Nuclear Power Plants,” NUREG-0612, July 1980, ML070250180.

NRC, “Safety Evaluation Report, Docket No. 72-27, Humboldt Bay Independent Spent Fuel Storage Installation, Materials License No. SNM-2514, November 2005, ML053140041.

NRC, “Changes to 10 CFR Parts 71 and 72 Quality Assurance Programs,” Information Notice 2002-35, December 20, 2002, ML023520339.

Pacific Gas and Electric Company (PG&E), “License Amendment Request 21-02, Proposed Revisions to Humboldt Bay Independent Spent Fuel Storage Installation Special Nuclear Materials License Number 2514 and Technical Specifications,” December 14, 2021, ML21348A389.

PG&E, “Humboldt Bay Independent Spent Fuel Storage Installation, Site-Specific Renewal Application,” Revision 4, November 18, 2019, ML19337C634.

PG&E, “Humboldt Bay Independent Spent Fuel Storage Installation, Final Safety Analysis Report Update,” Revision 10, August 2020, ML20281A414.

PG&E, “2021 Humboldt Bay Independent Spent Fuel Storage Installation (ISFSI) Annual Radiological Environmental Monitoring Report,” March 8, 2022, ML22067A249.

PG&E, “2020 Humboldt Bay Independent Spent Fuel Storage Installation (ISFSI) Annual Radiological Environmental Monitoring Report,” February 18, 2021, ML21049A351.

PG&E, “2019 Humboldt Bay Independent Spent Fuel Storage Installation (ISFSI) Annual Radiological Environmental Monitoring Report,” March 5, 2020, ML20065J379.

PG&E, “2018 Humboldt Bay Independent Spent Fuel Storage Installation (ISFSI) Annual Radiological Environmental Monitoring Report,” March 14, 2019, ML19073A327.

PG&E, “2017 Humboldt Bay Independent Spent Fuel Storage Installation (ISFSI) Annual Radiological Environmental Monitoring Report,” April 26, 2018, ML18123A360.

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