August 27, 2008

Mr. John T. Conway
Site Vice President
and Chief Nuclear Officer
Pacific Gas and Electric Company
P. O. Box 3
Mail Code 104/6/601
Avila Beach, CA 93424

SUBJECT: HUMBOLDT BAY POWER PLANT UNIT 3 – PROPOSED CHANGES TO THE EMERGENCY PLAN (TAC NO. J00340)

Dear Mr. Conway:

By letter dated December 7, 2007, you submitted for Commission approval, prior to implementation, changes in accordance with 10 CFR 50.54(q) and 10 CFR 72.44(f) to consolidate the existing Humboldt Bay Power Plant (HBPP) Unit 3 Emergency Plan (E-Plan) and Humboldt Bay Independent Spent Fuel Storage Installation (ISFSI) E-Plan into a single plan.

The changes would consolidate and revise the existing E-Plans to reflect the reduced radiological hazards that result from relocation of spent nuclear fuel assemblies and fuel fragment containers from the HBPP Unit 3 spent fuel pool to the ISFSI. You proposed these changes to the existing E-Plan elements to reflect the change in facility status. These proposed changes include elimination of emergency action levels specific to the spent fuel stored in the Unit 3 spent fuel pool, changes to the minimum emergency response organization staffing and reducing the number of annual drills from two per year to one.

We have completed a technical and regulatory review of the proposed E-Plan changes and supporting documentation and have concluded that the changes would continue to meet the standards in 10 CFR 50.47(b) and 10 CFR 72.32(a), and the requirements in Appendix E of 10 CFR Part 50, and the E-plan, as changed, would continue to provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. The basis for our conclusion is contained in the enclosed safety evaluation.

Based on our evaluation the staff approves the proposed changes to the HBPP E-Plan following the relocation of spent nuclear fuel assemblies and fuel fragment containers from the HBPP Unit 3 spent fuel pool to the ISFSI. Therefore, you may implement the proposed changes after the relocation of spent nuclear fuel assemblies and fuel fragment containers from the HBPP Unit 3 spent fuel pool to the ISFSI is complete.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system ADAMS. ADAMS is

accessible from the NRC Website at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

If you have any questions on these matters, please contact me at (301) 415-3017.

Sincerely,

/RA/

John B. Hickman, Project Manager
Reactor Decommissioning Branch
Decommissioning and Uranium Recovery
Licensing Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs

Docket No.: 50-133
License No.: DPR-7

Enclosure: Safety Evaluation

cc w/encl: Humboldt Bay Service List

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SAFETY EVALUATION BY THE OFFICE OF FEDERAL AND STATE MATERIALS

AND ENVIRONMENTAL MANAGEMENT PROGRAMS

RELATED TO PROPOSED REVISIONS TO THE EMERGENCY PLANS

FOR THE HUMBOLT BAY POWER PLANT, UNIT 3 DOCKET NOS. 50-133 AND 72-27

1.0 INTRODUCTION

By application dated December 7, 2007 (ADAMS Accession No. ML073540069), Pacific Gas and Electric Company (PG&E) submitted proposed changes in accordance with 10 CFR 50.54(q) and 10 CFR 72.44(f) to consolidate the existing Humboldt Bay Power Plant (HBPP) Unit 3 Emergency Plan and Humboldt Bay Independent Spent Fuel Storage Installation (ISFSI) Emergency Plan into a single plan the will be identified as the Humboldt Bay Site Emergency Plan for Commission approval prior to implementation.

The proposed changes would consolidate and revise the existing emergency plans to reflect the reduced radiological hazards that result from relocation of spent nuclear fuel assemblies and fuel fragment containers from the HBPP Unit 3 spent fuel pool to the ISFSI. As part of the consolidation process, PG&E is proposing changes to existing emergency plan elements to reflect the change in facility status related to the transfer of spent fuel from Unit 3 into the ISFSI. Some of these proposed changes include the elimination of emergency action levels specific to the spent fuel stored in the Unit 3 spent fuel pool, changes to on-shift staffing requirements, changes to the emergency augmentation of the on-shift staff and reducing the number of annual drills from two per year to one.

2.0 REGULATORY EVALUATION

The regulatory requirements and guidance on which the Nuclear Regulatory Commission (NRC) staff based its acceptance are as follows:

2.1 Regulations

- 10 CFR 50.47(b)(1) states, in part: "... each principal response organization has staff to respond and to augment its initial response on a continuous basis."

- 10 CFR 50.47(b)(2) states, in part: "... adequate staffing to provide initial facility accident response in key functional areas is maintained at all times, timely augmentation of response capabilities is available ...."

- 10 CFR 50, Appendix E, Section IV, Part A, "Organization," states, in part, "The organization for coping with radiological emergencies shall be described, including definition of authorities, responsibilities, and duties of individuals assigned to the licensee's emergency organization….

Enclosure

- 10 CFR 72.32(a)(3) states: “A classification system for classifying accidents as ‘Alerts’.”

- 10 CFR 72.32(a)(7) states, in part: “A brief description of the responsibilities of licensee personnel should an accident occur…"

2.2 Guidance

- NUREG-1567, "Standard Review Plan for Spent Fuel Dry Storage Facilities," Section 10.4.5, states in part:

  “Regulatory Guide 3.67, ‘Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities,’ contains the principal guidance on preparation of emergency plans for ISFSI… …installations.”

3.0 TECHNICAL EVALUATION

The NRC staff has reviewed the licensee’s regulatory and technical analyses in support of its proposed E-Plan changes, which are described in their application dated December 7, 2007. The evaluation below will support the conclusion that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission’s regulations, and (3) the approval of the proposed emergency plan changes will not be inimical to the common defense and security or to the health and safety of the public.

3.1 Background

The HBPP Unit 3 Emergency Plan provides a framework for response to any emergency at HBPP and is specific to Unit 3. The nuclear generating plant has been shutdown since July 1976 and is being maintained in safe storage. The Humboldt Bay ISFSI Emergency Plan was developed and submitted as part of the License Application for the ISFSI in December 2003. The ISFSI Emergency Plan addresses the transport of spent fuel and “Greater than Class C” (GTCC) waste form the HBPP Refueling Building to the ISFSI, and storage in the ISFSI. The licensee discusses that the proposed consolidation of these two plans will simplify the emergency planning and review processes, and reflects the reduced radiological hazards of the Unit 3 reactor site since the spent fuel has been relocated from the Unit 3 spent fuel pool to the ISFSI.

3.2 Changes to the minimum on-shift emergency response organization (ERO) staffing

Reduce on-shift ERO staffing from four to two positions

The licensee discusses that the relocation of spent fuel to the ISFSI significantly reduces the radiological hazards associated with Unit 3 and therefore reduces the complexity of immediate response. Consistent with this reduction in radiological hazards, PG&E proposed to reduce the minimum on-shift (interim) ERO staffing from four to two positions – an Emergency Coordinator and a Security Coordinator. The Emergency Coordinator is responsible for initial incident

assessment activities and, following completion of this assessment, for directing or completing required on-and off-site notification. The Emergency Coordinator retains the ability to direct the emergency response activities of other on-shift personnel as needed to support incident assessment and response activities. The Security Coordinator is responsible for providing support to the Emergency Coordinator and for coordinating the activities of the Security Force.

NRC staff evaluation: The licensee utilizes the HI-STAR HB System for storage of the spent fuel and GTCC. Each storage cell is stored in a below-grade concrete reinforced storage vault. The accident analysis provided in the Humboldt Bay ISFSI Safety Analysis Report provides the evaluations to demonstrate that the HI-STAR HB System can withstand the effects of off-normal events and accidents without affecting function. The proposed change meets the regulations and guidance, and is consistent with the emergency plans for other facilities having similar hazard. The staff finds this proposed change acceptable.

Reduce the augmented ERO from four to three positions

The licensee proposes to reduce the augmented ERO from four to three positions – an Emergency Coordinator, a Security Coordinator, and at least one other individual selected at the discretion of the Emergency Coordinator. The proposed augmented ERO will continue to be activated to the extent necessary, as determined by the Emergency Coordinator, for events requiring additional management, technical, or administrative support. The proposed Humboldt Bay Site Emergency Plan states, in part:

> "If the event meets the criteria for classification as an NOUE [Notice of Unusual Event] or Alert, or the Emergency Coordinator determines that additional resources are needed to implement required assessment and protective actions, additional personnel are notified, and the Augmented ERO is activated, to the extent necessary, as determined by the Emergency Coordinator. The Augmented ERO consists of a minimum of three individuals…"

NRC staff evaluation: The proposed change meets the regulations and guidance, and is consistent with the emergency plans for other facilities having similar hazard. The staff finds this proposed change acceptable.

Reduce the number of annual drills from two to one

The licensee proposes to reduce the number of annual drills from two to one. The current HBPP Unit 3 Emergency Plan requires one annual announced drill and one annual unannounced drill. The current Humboldt Bay ISFSI Emergency Plan requires one biennial announced drill and one biennial unannounced drill, which is essentially one annual drill. The proposed Humboldt Bay Site Emergency Plan states:

> "PG&E conducts at least one annual emergency drill for a simulated emergency affecting the entire site that includes radiological, medical and fire aspects. This drill includes sounding of the emergency signal or other alternate means to notify personnel and gathering all onsite personnel at designated assembly areas, e.g., emergency assembly point, evacuation areas or shelter lockdown location. PG&E conducts a biennial emergency drill of a simulated security event affecting the entire site."

NRC staff evaluation: 10 CFR 72.32(a)(12) states, in part, "…and biennial onsite exercises to test response to simulated emergencies. Radiological/Health Physics, Medical, and Fire drill shall be conducted annually." The proposed change is consistent with the regulations and the staff finds this proposed change acceptable.

Delete the Emergency Action Levels (EALs) for spent fuel

The licensee proposes to delete the EAL for damage to spent fuel stored in the spent fuel pool, currently in the HBPP Unit 3 Emergency Plan; however PG&E will retain the EAL for damage to the spent fuel in the ISFSI that is currently contained in the Humboldt Bay ISFSI Emergency Plan. PG&E also proposes to delete the EAL for Unit 3 security events, currently in the HBPP Unit 3 Emergency Plan; however PG&E will retain the EAL for security events at the ISFSI that is currently contained in the Humboldt Bay ISFSI Emergency Plan. These EAL eliminations are consistent with the transfer of spent fuel from Unit 3 to the ISFSI. PG&E's evaluation of the existing hazards indicates that, because of these changes, there will be no reduction in effectiveness as a result of the proposed consolidated Humboldt Bay Site Emergency Plan and are consistent with other facilities with similar hazards.

NRC staff evaluation: The proposed change meets the regulations and guidance, and is consistent with the emergency plans for other facilities having similar hazard. The staff finds this proposed change acceptable.

4.0 CONCLUSION

The NRC staff finds that the PG&E proposed changes meet the standards in 10 CFR 50.47(b) and 10 CFR 72.32(a), and the requirements in Appendix E of 10 CFR Part 50, and the E-plan, as changed, continues to provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. Therefore, the NRC staff concludes that the licensee's proposed changes to the Humboldt Bay ISFSI Emergency Plan in its application dated December 14, 2007, are acceptable.

5.0 REFERENCES

1. PG&E Letter, "Proposed Emergency Plan Revision Requiring Prior NRC Approval," dated December 14, 2007. [ADAMS Accession No. ML073540069]

2. NUREG-1567, "Standard Review Plan for Spent Fuel Dry Storage Facilities". [ADAMS Accession No. ML003686776]

3. Regulatory Issue Summary 2003-18, Supplement 1, "Use of NEI 99-01, 'Methodology for Development of Emergency Action Levels,' Revision 4, Dated January 2003." [ADAMS Accession No. ML041550395]

4. Regulatory Issue Summary 2005-02, "Clarifying the Process for Making Emergency Plan Changes." [ADAMS Accession No. ML042580404]

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