

September 29, 2005

Mr. Milford "Wayne" Donaldson  
State Historic Preservation Officer  
California Office of Historic Preservation  
1416 Ninth Street, Room 1442-7  
Sacramento, California 95814

SUBJECT: RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION AND REQUEST  
FOR CONCURRENCE ON DETERMINATION OF EFFECTS ON HISTORIC  
PROPERTIES FOR THE PROPOSED HUMBOLDT BAY INDEPENDENT  
SPENT FUEL STORAGE INSTALLATION

Dear Mr. Donaldson:

By letter dated July 14, 2004, the U.S. Nuclear Regulatory Commission (NRC) staff requested your concurrence with the NRC staff's determination that the proposed action of the construction and operation by Pacific Gas and Electric Company (PG&E) of an Independent Spent Fuel Storage Installation (ISFSI) on the site of the Humboldt Bay Power Plant (HBPP) in Humboldt County, California. In response, by letter dated December 16, 2004, you requested additional information to support the NRC staff's determination. In particular, you requested (1) a map of the "area of potential effects" (APE) with a written description of how the APE was determined, and (2) documentation of recent consultation with local Native American tribes and individuals.

The NRC staff has determined that the APE is defined by the HBPP site boundaries. This determination is documented in Enclosure 1. Within the APE, there are no historic properties listed on the National Register of Historic Places. PG&E considers that Unit 3 (*i.e.*, the shutdown reactor) at the HBPP is a potentially eligible National Register property, but PG&E has stated further that the proposed action will have no effect on Unit 3. The NRC staff concurs with this determination. PG&E also has stated that it will further evaluate the significance of Unit 3 with respect to Section 106 of the National Historic Preservation Act as part of a future decommissioning plan for the HBPP. PG&E's statements to this effect were made in its December 15, 2003 environmental report and provided to you previously in the attachment to the NRC staff's July 14, 2004, letter.

The NRC staff also has consulted with the California Native American Heritage Commission and three Federally-recognized Indian Tribes (the Wiyot Tribe, the Bear River Band of Rohnerville Rancheria, and the Blue Lake Rancheria) in the staff's evaluation of potential impacts to cultural resources. As a result of this evaluation, the Tribes expressed their concern about the potential effects of the undertaking on Humboldt Bay and its environs, but did not identify any specific cultural resources within the APE. The NRC staff has evaluated the potential environmental impacts of the proposed construction and operation of the HBPP ISFSI and has concluded that there would be no significant impacts from this proposed action. With respect to the potential discovery of cultural resources, PG&E has committed to stopping work and notifying the PG&E

archaeologist should any new cultural resources be identified during construction activities associated with the proposed action. In such an event, the NRC would comply with the applicable provisions under 36 CFR 800.13(b). The results of the NRC staff's consultation with the Tribes were discussed in a phone call between Mr. James Park of my staff and Ms. Ann Marie Medin of your staff on September 27, 2005. Documentation of the NRC staff's consultation on this matter is provided as Enclosure 2.

Based on its evaluation, the NRC staff has determined that the proposed action does not adversely affect any historical or cultural properties. The staff's determination is based on its evaluation of potential environmental impacts from the undertaking, the lack of listed historic properties and identified cultural resources within the APE, and the determination that Unit 3, a potentially eligible historic property, would not be affected by the undertaking. Therefore, by this correspondence, the NRC staff requests your concurrence with its determination that the proposed action does not adversely affect any historical properties.

If you have any questions, please contact Mr. James Park of my staff. Mr. Park can be reached by phone at (301) 415-5835 or by email at [jrp@nrc.gov](mailto:jrp@nrc.gov).

Sincerely,

**/RA/**

Scott C. Flanders, Director  
Environmental and Performance  
Assessment Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Nuclear Material Safety  
and Safeguards

Enclosures:

1. Determination of the "Area of Potential Effects" for the Proposed Independent Spent Fuel Storage Installation, Humboldt Bay Power Plant, Humboldt County, California
2. Documentation of Section 106 consultation

cc (w/o enclosure): Attached List  
Ann Marie Medin, CA OHP

Docket No. 72-27

and notifying the PG&E archaeologist should any new cultural resources be identified during construction activities associated with the proposed action. In such an event, the NRC would comply with the applicable provisions under 36 CFR 800.13(b). The results of the NRC staff's consultation with the Tribes were discussed in a phone call between Mr. James Park of my staff and Ms. Ann Marie Medin of your staff on September 27, 2005. Documentation of the NRC staff's consultation on this matter are provided as Enclosure 2.

Based on its evaluation, the NRC staff has determined that the proposed action does not adversely affect any historical or cultural properties. The staff's determination is based on its evaluation of potential environmental impacts from the undertaking, the lack of listed historic properties and identified cultural resources within the APE, and the determination that Unit 3, a potentially eligible historic property, would not be affected by the undertaking. Therefore, by this correspondence, the NRC staff requests your concurrence with its determination that the proposed action does not adversely affect any historical properties.

If you have any questions, please contact Mr. James Park of my staff. Mr. Park can be reached by phone at (301) 415-5835 or by email at jrp@nrc.gov.

Sincerely,

**/RA/**

Scott C. Flanders, Director  
 Environmental and Performance  
 Assessment Directorate  
 Division of Waste Management  
 and Environmental Protection  
 Office of Nuclear Material Safety  
 and Safeguards

Enclosures:

1. Determination of the "Area of Potential Effects" for the Proposed Independent Spent Fuel Storage Installation, Humboldt Bay Power Plant, Humboldt County, California
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<b>OFC</b>	DWMEP:PM	DWMEP: SC	DWMEP: DD
<b>NAME</b>	JPark:	JDavis	SFlanders
<b>DATE</b>	09/29/05	09/29/05	09/29/05

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jrp  
 (Initials)

09/29/05  
 (Date)

Pacific Gas and Electric Company  
Humboldt Bay Power Plant, Unit 3  
Docket Nos. 50-133, 72-27

cc (w/o enclosure):

Mr. Lawrence F. Womack, Vice President,  
Power Generation & Nuclear Services  
Diablo Canyon Power Plant  
P.O. Box 56  
Avila Beach, CA 93424

Mr. Roy Willis, Plant Manager  
Humboldt Bay Nuclear Power Plant  
Pacific Gas & Electric Company  
1000 King Salmon Avenue  
Eureka, CA 95503

R. Terry Nelson, Director  
Fossil Generation  
Mail Code N11E  
Pacific Gas & Electric Company  
P.O. Box 770000  
San Francisco, California 94177-0001

Mr. Richard F. Locke, Esq.  
Law Department  
Pacific Gas & Electric Company  
Post Office Box 7442  
San Francisco, CA 94120

Chairman, Humboldt County Board  
of Supervisors  
County Courthouse  
825 Fifth Street  
Eureka, CA 95501

Mr. Steve Hsu  
Radiologic Health Branch  
State Department of Health Services  
P.O. Box 997414 (MS 7610)  
Sacramento, CA 95899-7414

Regional Administrator, Region IV  
U.S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011-8064

Redwood Alliance  
P.O. Box 293  
Arcata, CA 95521

Dr. Rich Ferguson, Energy Chair  
Sierra Club California  
1100 11<sup>th</sup> Street, Suite 311  
Sacramento, CA 94814

Mr. Truman Burns  
Mr. Robert Kinoshian  
California Public Utilities Commission  
505 Van Ness, Room 4102  
San Francisco, CA 94102

Mr. Ed Bailey, Radiation Program Director  
Radiologic Health Branch  
State Department of Health Services  
P.O. Box 942732 (MS 178)  
Sacramento, CA 94327-7320

Mr. James D. Boyd, Commissioner  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA 95814

Deputy Attorney General  
State of California  
110 West A Street, Suite 700  
San Diego, CA 92101

U.S. Environmental Protection Agency  
Region IX Office  
ATTN: Regional Radiation  
Representative  
75 Hawthorne Street  
San Francisco, CA 94105

Chief, Fuel Cycle and Decommissioning  
Branch, Region IV  
U.S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011-8064

Public Affairs Officer, Region IV  
U.S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011-8064

Enclosure 1

Determination of the "Area of Potential Effects" for  
the Proposed Independent Spent Fuel Storage Installation,  
Humboldt Bay Power Plant, Humboldt County, California

Determination of the “Area of Potential Effects” for  
the Proposed Independent Spent Fuel Storage Installation, Humboldt Bay Power Plant,  
Humboldt County, California

In accordance with 36 CFR 800.4(a)(1), for any undertaking that may adversely affect historic properties, the “area of potential effects” (APE) must first be determined and documented. Under 36 CFR 800.16(d), the APE is defined as “the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.”

The present undertaking is the proposed construction and operation of an Independent Spent Fuel Storage Installation (ISFSI) on the site of Pacific Gas & Electric’s (PG&E’s) Humboldt Bay Power Plant (HBPP) in Humboldt County, California. As described in PG&E’s December 15, 2003 application, the proposed ISFSI facility will be located within the 143-acre site boundary of the existing HBPP facility, on a small peninsula known as Buhne Point. The coordinates of the planned ISFSI site are latitude 40°44' N and longitude 124°12' W (approximately). Maps of the HBPP vicinity and site are attached (Attachment 1).

As shown on Figure 2.2-3, “Humboldt Bay ISFSI: Site Plan,” (Attachment 2) from the PG&E December 2003 environmental report, the proposed ISFSI would be constructed in the northwestern corner of the 143-acre, PG&E owner-controlled area, in an area previously disturbed during HBPP operations. The ISFSI would provide temporary dry storage capacity for the spent nuclear fuel that PG&E currently stores in the HBPP spent fuel pool, located in the shut-down Unit 3. The proposed ISFSI is intended as an interim facility consisting of an in-ground concrete structure with storage capacity for six shielded casks.

The storage vault, with dimensions of approximately 6.1 m x 23.2 m (20 ft x 76 ft), would be comprised of six below-grade, vertically oriented, cylindrical storage cells that are structural units constructed of steel-reinforced concrete with a carbon steel liner. Each storage cell, designed to accommodate one cask, would be approximately 2.7 m (9 ft) in diameter by 3.5 m (11-1/2 ft) deep. The bottom, end walls, and side walls of the vault would be constructed of reinforced concrete. The elevation of the vault top (without the storage cell lids installed) would be approximately flush with the ground surface, with the lids approximately 0.4 m (16-1/4 inches) high, not including the height of the lid bolt caps.

Construction would be limited to the vicinity of the ISFSI site, along the oil road, and at the nearby, onsite excavation spoils disposal area (indicated on Figure 2.2-3 as “SPOIL AREA”). Construction of the ISFSI storage vault would require the removal of vegetation, soil excavation, spoils disposal, forming and pouring the concrete vault structure, and excavation backfill. PG&E estimates that approximately 917 cubic meters (1200 cubic yards) of material would be excavated using standard earthmoving equipment and disposed onsite at the spoils disposal site. Another approximately 765 m<sup>3</sup> (1000 yd<sup>3</sup>) would be moved around during construction and used at the ISFSI for final site contouring. Concrete for the ISFSI vault would be obtained from offsite sources.

The spoils disposal area, covering approximately 836 square meters (9000 square feet), is located within an area that had been disturbed previously by plant operations. This area would be accessed via the existing oil road, and material disposed there would be contoured to the existing slope. As appropriate, PG&E would use best management practices (BMPs) to address storm water runoff, erosion control, and revegetation. In addition, PG&E would apply applicable BMPs during ISFSI construction to protect local waters and nearby wetlands from site runoff, spillage, and leaks. Finally, all areas disturbed during construction activities would be revegetated with an appropriate seed mix.

A single-story security building also would be constructed and located outside the security fencing for the ISFSI, to the east of the vault. The security building would be approximately 6.1 m x 12.2 m (20 ft x 40 ft) and no more than 6.1 m (20 ft) high. There would be water, sewer, electrical, and telephone connections to the security building. Construction of the security building would involve minor excavation in order to install the footing and foundation for the building, with concrete for this operation delivered from offsite. Lumber, glass, and insulation also may be brought to the ISFSI security building construction site. Other auxiliary security components of the ISFSI include the installation of chain-link fencing, perimeter lighting, and security surveillance monitoring equipment.

The existing oil supply road would provide the transport route from Unit 3 to the ISFSI site and would be widened 8 feet for this purpose and extended approximately 200 feet to the proposed ISFSI site. Finally, inside Unit 3, PG&E would install a cask handling crane and a rail dolly for transporting the spent fuel storage casks into and out of the building.

The operation of the ISFSI would involve pre-operational testing of the cask handling crane, the transporter, and all ancillary storage system components; transfer of the spent fuel from the spent fuel pool to the ISFSI; closure of the vault; and operational monitoring. Once in the vault, no active components would be needed to ensure safe storage of the spent fuel. No gaseous or liquid effluents would be produced during operations due to the passive nature of the ISFSI.

In summary, the construction and operational activities related to the proposed HBPP ISFSI are contained within the site boundary (shown on Figure 2.2-3 by the heavy dashed line). Construction would be limited to the ISFSI construction site, the extended and widened oil road, and the spoils disposal area. The spent fuel casks would be moved by a transporter from the Unit 3 building, along the oil road, and transferred to the in-ground vault for interim storage. Following closure of the ISFSI, the site would be appropriately monitored.

Attachments:

1. Maps of the Humboldt Bay Power Plant site and vicinity
2. Figure 2.2-3, "Humboldt Bay ISFSI: Site Plan," from the PG&E December 2003 environmental report

Attachment 1

Maps of the Humboldt Bay Power Plant site and vicinity



