July 29, 2005

Mr. Michael Long, Field Supervisor
U.S. Fish and Wildlife Service
Arcata Fish and Wildlife Office
1655 Heindon Road
Arcata, California 95521

SUBJECT: DETERMINATION OF NO ADVERSE EFFECT ON ENDANGERED SPECIES OR CRITICAL HABITAT FROM THE PROPOSED HUMBOLDT BAY INDEPENDENT SPENT FUEL STORAGE INSTALLATION

Dear Mr. Long:

The U.S. Nuclear Regulatory Commission (NRC) staff currently is reviewing a license application submitted by Pacific Gas and Electric Company (PG&E) on December 15, 2003, to construct and operate an Independent Spent Fuel Storage Installation (ISFSI) on the site of the Humboldt Bay Power Plant (HBPP) in Humboldt County, California. As part of its environmental review, the NRC staff is preparing an Environmental Assessment (EA) in accordance with the requirements of the National Environmental Policy Act of 1969, as amended, as specified in 10 CFR Part 51 of the NRC's regulations. In conjunction with this review, the NRC staff also is considering the potential impact of the proposed action (*i.e.*, the construction and operation of an ISFSI at the HBPP) on endangered species, in accordance with the Endangered Species Act.

By letter dated June 4, 2004, the NRC staff requested information on endangered and threatened species and on critical habitat from the U.S. Fish and Wildlife Service, Arcata Fish and Wildlife Office (USFWS/AFWO). By telephone call on June 27, 2004, Mr. Greg Goldsmith of the USFWS/AFWO indicated that the requested information was available online, through the field office's website, http://www.ccfwo.r1.fws.gov. The NRC staff downloaded this information on June 28, 2004, for its assessment of effects from the proposed action on any endangered or threatened species or on critical habitat within the area of influence for the proposed action. On July 28, 2005, the NRC staff revisited the field office's website and confirmed that the list of endangered or threatened species had not changed.

After a review of the potential impacts, the NRC staff has determined that the proposed action would have no effect on endangered or threatened species or critical habitat within the area of influence for the proposed action. The supporting basis for this conclusion is provided in the enclosure to this letter.

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

Sincerely,

/RA/

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

Enclosure: Assessment of Potential Effect

cc: Attached List

Docket No: 72-27

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Assessment of Potential Effect

Ecological Assessment

The vicinity within 8.0 km (5 mi) of the proposed Humboldt Bay Power Plant (HBPP) Independent Spent Fuel Storage Installation (ISFSI) site provides a wide array of habitats for plants and animals. Terrestrial ecological surveys identified more than 200 vascular plants and 12 vegetation communities in the area in and around the ISFSI site. Additionally, an extensive list of birds, mammals, reptiles, and amphibians is provided in Tables 2.3-3 through 2.3-5 of the Humboldt Bay ISFSI Environmental Report (Pacific Gas and Electric Company (PG&E), 2003).

PG&E land near the ISFSI site was inventoried for the presence of special status plant species in 1999 and 2002. Site vegetation habitats, present in the project area (storage site, fill disposal area, and transportation route) consist primarily of disturbed coastal terrace prairie. The site has been disturbed considerably over the life of the HBPP facility, from initial construction to the ongoing maintenance activities (*e.g.*, mowing). Most of the species occurring on the site and related project areas are nonnative species, many of which are ruderals (*i.e.*, plants that grow in wastelands or disturbed areas). Areas previously cleared of vegetation, such as along the discharge canal, access roads, and parking lots, are dominated by the ruderal species present in the disturbed grassland. A comprehensive field study in 2002 on the HBPP site did not locate suitable habitat for or any presence of plant species designated for special status by the State of California or federally listed or candidate threatened or endangered plant species (PG&E, 2003). The western lily (*lilium occidentale*), which is federal- and state-listed as endangered and reported in the freshwater marsh south of Fields Landing (more than 1.6 km (1 mi) south of the ISFSI site), would not be affected by ISFSI-related activities at the HBPP.

Numerous special status terrestrial wildlife species occur within the ecologically diverse and productive habitats in the vicinity of the ISFSI project site. Inventories conducted in 1999 and 2002 on PG&E property, including the ISFSI site, did not indicate the presence of any of these species and found that the lack of suitable habitat made their presence unlikely (PG&E, 2003).

In the vicinity of the project, five special-status species of fish (tidewater goby, Chinook salmon, coho salmon, steelhead, and coastal cutthroat trout) occur or have the potential to occur based on the presence of suitable habitat. An inventory of PG&E-owned land, including the ISFSI site, in 1999 and 2002 did not observe these species on PG&E property or at the ISFSI site. Lack of suitable habitat for these species indicates that they are not present at the ISFSI site. Harbor seals (*Phoca vitulina*) do not have official status as a listed endangered or threatened species, but they are protected under the Marine Mammal Protection Act. Harbor seals are year-round residents of the Humboldt Bay region. The seals haul out on tidal flats in areas remote from human activity to rest and bear their young. The Humboldt Bay National Wildlife Refuge in the southern part of Humboldt Bay is a key breeding and hauling out area used by harbor seals (PG&E, 2003).

PG&E-owned land in the vicinity of the ISFSI site was inventoried for the presence of special status freshwater aquatic species in 1999 and 2002. Five special-status freshwater aquatic species occur in the vicinity of the ISFSI project: the northern red-legged frog, the foothill yellow-legged frog, the tailed frog, the southern torrent salamander, and the northwestern pond

turtle. No special status freshwater aquatic species appear to occur at the ISFSI site (PG&E, 2003).

A habitat assessment, conducted in August 1999 using procedures approved by the U.S. Fish and Wildlife Service, found that the ISFSI site and surrounding PG&E property have limited habitat suitable for northern red-legged or tailed frogs because of the lack of freshwater streams (PG&E, 2003). Although no frogs or tadpoles were observed at the ISFSI site, a small stream directly east of the intake canal has limited potential to be a low-quality breeding habitat for the northern red-legged frog. Additionally, there are freshwater ponds with cattails near Highway 101 that could provide foraging and dispersal habitat for northern red-legged frogs. No suitable habitat was found for the southern torrent salamander, the foothill yellow-legged frog, tailed frogs, or the northwestern pond turtle at the ISFSI site or on the adjacent PG&E property.

Impacts Assessment

Construction Impacts

The environmental impacts due to construction of the HBPP ISFSI are expected to be small. The ISFSI would be located within the boundaries of the 143-acre PG&E-controlled site area, and constructed in an area previously disturbed during HBPP operations. Construction activities associated with the proposed ISFSI would impact less than one acre of land area. This impact would involve excavating the vault area, disposing the excavated spoils, forming and pouring of the vault structure, widening and extending the oil supply road, constructing miscellaneous structures, and controlling dust and runoff. Construction materials would be derived from offsite sources.

Dust generated during construction is expected to be minimal given that the construction traffic would be using paved onsite and offsite roadways. Dust derived from excavation and fill operations would be mitigated through dust control techniques (*e.g.,* watering and/or chemical stabilization). Routine truck washing and covering truck-hauled materials would contribute to minimizing dust emissions. Gaseous emissions from construction equipment would be mitigated through regular maintenance of the equipment (PG&E, 2003).

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 will be accessed via the existing oil road, and the transport and deposition of the excavated material is not expected to have a significant environmental impact. 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. All areas disturbed during construction activities would be revegetated with an appropriate seed mix.

The impact of construction of the ISFSI on local water sources and wetlands is expected to be small. Discharges from the HBPP are regulated currently under a discharge permit issued by the North Coast Regional Water Quality Control Board (NCRWQCB). PG&E will address any needed modifications to its permit with the NCRWQCB. In addition, PG&E would apply applicable BMPs during ISFSI construction to protect local waters and nearby wetlands from site runoff, spillage, and leaks.

ISFSI construction activities are not expected to impact any state or federally listed threatened or endangered plant, terrestrial wildlife, marine life, or fish species. All such species that may occur within a 8-km (5-mile) radius of the proposed facility were considered by the applicant. None of these species were found to inhabit the area on or immediately adjacent to the ISFSI site, nor were they identified at the spoils disposal site.

Impacts from Operations

Operation of the proposed ISFSI would involve loading the spent fuel into the HI-STAR HB casks while in the refueling building (RFB), moving the loaded casks from the RFB to the proposed in-ground vault, placing the casks in the vault, and then closing the ISFSI. Once the vault is closed, PG&E would conduct long-term monitoring of the ISFSI and surrounding area under its Radiological Environmental Monitoring Program.

Operation of the proposed ISFSI would not require any additional land beyond that used for the vault and security building. The 18.3 m x 39 m (60 ft x 128 ft), fenced-in security area surrounding the ISFSI will not significantly effect the area available for terrestrial wildlife. In addition, ISFSI operation is not expected to adversely impact terrestrial and aquatic environments or their associated plant and animal species. Operation would not require water resources. Due to the passive nature of the ISFSI, no gaseous or liquid effluents would be produced during operation. Finally, ISFSI operation would not generate any significant noise and would not impact climate or socioeconomics.

Radiological effects on wildlife are expected to be small. The proposed ISFSI would be constructed below grade and surrounded by security fencing. No state or federally listed threatened or endangered species are present in the immediate area of the ISFSI site, and the area has a low habitat value due to its significant development and use. The fences would keep most species far enough from the vault that the resulting radiation doses should pose no threat to wildlife, although some birds and small wildlife may intrude into the ISFSI area. To receive a significant dose, birds and small animals would need to remain in almost constant contact with a storage cask. The ISFSI area would not provide a conducive environment for wildlife, and monitoring activity around the area also would discourage wildlife from remaining in the area. Therefore, very few, if any, animals are expected to receive significant radiation exposure as a result of ISFSI operation.

References

PG&E, 2003. “Humboldt Bay Independent Spent Fuel and Storage Installation Environmental Report,” Docket No. 72-27, transmitted by letter dated December 13, 2003.

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Humboldt Bat Power Plant, Unit 3
Docket Nos. 50-133, 72-27

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