01/26/04

MEMORANDUM TO: Larry Camper, Deputy Director
Licensing and Inspection Directorate
Spent Fuel Project Office, NMSS

FROM: James R. Hall, Sr. Project Manager /RA/
Licensing Section
Spent Fuel Project Office, NMSS

SUBJECT: MEETING WITH PACIFIC GAS AND ELECTRIC COMPANY REGARDING THE HUMBOLDT BAY INDEPENDENT SPENT FUEL STORAGE INSTALLATION LICENSE APPLICATION (TAC NO. L23589)

On December 19, 2003, U.S. Nuclear Regulatory Commission (NRC) staff met with Pacific Gas and Electric Company (PG&E) to discuss PG&E's license application for an independent spent fuel storage installation (ISFSI) at the Humboldt Bay site. The application was submitted on December 15, 2003. The attachment lists the meeting attendees. There were no meeting handouts. The meeting was noticed on December 3, 2003.

PG&E briefly described the Humboldt Bay power plant history and current status, and summarized the chronology of the ISFSI project, which was initiated in 1996. Humboldt Bay Unit 3, a 63 MWe boiling water reactor licensed in 1962, was permanently shut down in 1976. The unit has been in a SAFSTOR configuration since 1988, and in order to proceed with decommissioning, PG&E plans to transfer the entire spent fuel inventory of 390 spent fuel assemblies from the existing spent fuel pool to the proposed ISFSI.

PG&E has received funding approval for the licensing phase of the ISFSI project from the California Public Utilities Commission; however, additional funds will need to be requested if the ISFSI license is granted, to support construction and operation. The proposed ISFSI design will consist of six modified Holtec HI-STAR casks placed in a vault below grade. Each of the HI-STAR HB casks will permit storage of up to 80 spent fuel assemblies. Five of the six casks will be able to store all of the plant's spent fuel; the sixth cask will be used to store greater than Class C (GTCC) waste. The HI-STAR casks are designed to be loaded in the spent fuel pool, dried and sealed in the fuel handling building, then transferred directly to the ISFSI for storage without the need for a separate transfer cask or facility.

PG&E next discussed the licensing actions needed to support the ISFSI project. In addition to the 10 CFR Part 72 license for the ISFSI itself, PG&E will submit an amendment request to the Humboldt Bay 10 CFR Part 50 license to address the handling of heavy loads associated with dry cask loading activities. PG&E expects to submit that amendment request to NRC in the first quarter of CY 2004. PG&E will also be submitting an application for a Coastal Development Permit to the California Coastal Commission in early 2004.

The Humboldt Bay ISFSI licensing application is in a format similar to PG&E's application for the Diablo Canyon ISFSI. The Humboldt Bay ISFSI application references the relevant aspects

of NRC's previous approval of the Holtec HI-STAR system design, and the proposed ISFSI Technical Specifications are modeled on those previously approved by the staff. PG&E indicated that the analysis of postulated seismic events and other natural hazards were some of the more significant issues in developing the application, and that they applied probabilistic risk assessment methods to certain limited scenarios as part of their approach.

PG&E described some unique features of the spent fuel and the HI-STAR cask design for the Humboldt Bay ISFSI. The ISFSI "vault" will consist of six steel liners embedded in concrete below grade, with steel lids bolted to the liner flanges. The very low decay heat of the Humboldt Bay spent fuel allows a design that does not require ventilation of the vault spaces. The smaller size of the Humboldt Bay fuel assemblies will allow up to 80 assemblies to be stored in each HI-STAR cask, which will be shorter and lighter than the standard design (80 tons vs. 125 tons, fully loaded). Humboldt Bay has identified 26 failed fuel assemblies, and conservatively estimates that the number could be as high as 75 to 80. All failed fuel will be placed in debris cans; each HI-STAR cask will be capable of storing up to 40 such cans, with the cask capacity remaining at a total of 80 intact assemblies and fuel debris cans.

PG&E concluded by indicating that they have taken a conservative design approach that should allow for a simpler review by the staff. The meeting was then adjourned; no regulatory decisions were requested nor made.

Docket Nos.: 72-27 and 50-133

Attachment: Attendee List

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Attachment

Meeting between the Nuclear Regulatory Commission and Pacific Gas and Electric Company on the Humboldt Bay Independent Spent Fuel Storage Installation License Application

December 19, 2003

ATTENDANCE LIST

Name	Affiliation
Terry Grebel	PG&E
Roy Willis	PG&E
Lawrence Pulley	PG&E
Wayne Hodges	NRC/SFPO
Gordon Bjorkman	NRC/SFPO
Randy Hall	NRC/SFPO
Steve O'Connor	NRC/SFPO
David Tang	NRC/SFPO
Kim Hardin	NRC/SFPO
Chris Brown	NRC/SFPO
Mahendra Shah	NRC/SFPO
Paul Narbut	NRC/SFPO
Adelaide Giantelli	NRC/SFPO
Geoff Hornseth	NRC/SFPO
Chris Bajwa	NRC/SFPO
Tim Kobetz	NRC/NMSS
Bill Huffman	NRC/NMSS
Dave Dancer	NRC/NMSS
John Stamatakos	CNWRA