

February 23, 2005

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE – PNO-IV-05-005

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region IV, Arlington, Texas, staff on this date.

Facility

Pacific Gas and Electric Company
Humboldt Bay Power Plant Unit 3
1000 King Salmon Avenue
Eureka, California 95503
Docket No.: 50-133
License No.: DPR-7

Licensee Emergency Classification

Notification of Unusual Event
 Alert
 Site Area Emergency
 General Emergency
 Not Applicable

SUBJECT: NOTIFICATION OF MISSING IN-CORE DETECTORS AT HUMBOLDT BAY

DESCRIPTION:

On February 22, 2005, Pacific Gas and Electric (PG&E) notified the NRC that they were unable to locate one intact in-core detector and parts of three others. The discrepancy was identified on February 4, 2005, following a review of records and a physical inventory of all Special Nuclear Material (SNM) located at the Humboldt Bay nuclear plant in Eureka, California which is undergoing decommissioning. The notification to the NRC was made pursuant to the requirements of 10 CFR 20.2201(a)(1)(ii). The licensee estimated that the missing in-core detectors contained about 0.15 grams of uranium-235.

Records show the plant had 18 in-core assemblies. Each consists of a 16-foot long tube with three in-core detectors (approximately 2.5 inches long) totaling 54 irradiated in-core detectors. During spent fuel pool cleanup activities conducted between 1970 and 1980, workers cut the assemblies to facilitate their storage, accidentally severing some of the in-core detectors. The licensee has only been able to locate 50 intact in-core detectors and 3 partial detectors.

PG&E issued a press release today describing this event notification and updating the public on its search for missing spent fuel rod segments first reported to the NRC on July 16, 2004 (PNO-IV-04-017A).

PG&E has found no evidence to support the possibility of theft or diversion of the missing in-core detectors. The licensee believes they were probably shipped off-site to a licensed, monitored and restricted radiological control disposal facility, and hence pose no threat to public health or safety.

In June 2004, PG&E concluded that three 18-inch segments from an irradiated fuel rod were unaccounted for and on July 16, 2004, PG&E notified NRC regarding the missing fuel rod segments. NRC inspectors have been on-site periodically since mid-July 2004 to monitor the licensee's search activities. NRC Region IV began a special team inspection in November 2004 to review the licensee's

Special Nuclear Material accountability and control program, its search activities, and identify potential generic issues. The team will also review PG&E's investigation of the missing in-core detectors.

Humboldt Bay was a 65 MW(e) GE Boiling Water Reactor that operated between 1963 and 1976.

The states of Ohio, New York, Nevada, South Carolina and Washington, which have low-level waste disposal facilities, have been notified about the missing in-core detectors. The state of California also has been notified of the loss.

Region IV has informed OEDO, NMSS, OSTP, and the Region's SLO and PAO. This information has been discussed with the licensee and is current as of 1:00 p.m. (CDT) on February 23, 2005.

ADAMS ACCESSION NUMBER: ML050540569

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