

**UNITED STATES NUCLEAR REGULATORY COMMISSION**

**PACIFIC GAS AND ELECTRIC COMPANY**

**DOCKET NO. 50-133**

**NRC-2009-0560**

**HUMBOLDT BAY POWER PLANT UNIT 3**

**EXEMPTION FROM CERTAIN LOW-LEVEL WASTE SHIPMENT TRACKING**

**REQUIREMENTS IN 10 CFR PART 20 APPENDIX G**

**1.0 BACKGROUND**

The Pacific Gas and Electric Company (PG&E) is the licensee and holder of Facility Operating License No. DPR-7 issued for Humboldt Bay Power Plant, Unit 3 (HBPP), located in Humboldt County, California. HBPP is a permanently shutdown nuclear reactor facility. PG&E is beginning the process of decommissioning HBPP and the amount of radioactive waste shipped from the site is expected to significantly increase. During the decommissioning process, large volumes of slightly contaminated concrete rubble and debris are generated that require shipment for disposal in offsite low-level radioactive waste disposal sites. Experience at other decommissioning nuclear power facilities has shown that, due primarily to the volume of radioactive waste, licensees have encountered an increase in the number of routine shipments that take longer than 20 days from transfer to the shipper to receipt acknowledgment from the disposal site. Each shipment with receipt notifications greater than 20 days requires a special investigation and report to the U.S. Nuclear Regulatory Commission (NRC or the Commission) which the licensee believes to be burdensome and unnecessary to meet the intent of the regulation.

## **2.0 REQUEST/ACTION**

In a letter to the Commission dated September 4, 2009, PG&E requested an exemption from the requirements in 10 CFR Part 20, Appendix G, Section III.E, to investigate and file a report to the NRC if shipments of low-level radioactive waste are not acknowledged by the intended recipient within 20 days after transfer to the shipper. This exemption would extend the time period that can elapse during shipments of low-level radioactive waste before PG&E is required to investigate and file a report to the NRC from 20 days to 45 days. The exemption would be applicable to mixed-mode shipments such as combination truck/rail, barge/rail and barge/truck shipping methods. The exemption request is based on an analysis of the historical data of low-level radioactive waste shipment times from the Southern California Edison Company's San Onofre Nuclear Generating Station (SONGS) site to the disposal site.

## **3.0 DISCUSSION**

The proposed action would grant an exemption to extend the 20-day investigation and reporting requirements for shipments of low-level radioactive waste to 45 days.

Historical data derived from experience at SONGS, indicates that rail transportation time to waste disposal facilities frequently exceeded the 20-day reporting requirement. A review of the SONGS data indicates that transportation time for shipments by rail or truck/rail took over 16 days on average and, on occasion, took up to 57 days. In addition, administrative processes at the disposal facilities and mail delivery times could add several additional days.

HBPP is in a more remote location than SONGS and is not near a railhead. Shipping from HBPP may require a combination of truck/rail, barge/rail or barge/truck shipments. These mixed-mode shipments will be comprised of truck and barge shipments from HBPP to inland locations in California or nearby states, followed by rail shipments to the waste disposal facilities or processors. The additional step of transloading material at a remote railyard

(e.g., unloading and loading, waiting for the train to depart) is expected to add to shipping delays that exceed the time of shipments from SONGS. Therefore, HBPP is requesting an extension to 45 days.

Pursuant to 10 CFR 20.2301, the Commission may, upon application by a licensee or upon its own initiative, grant an exemption from the requirements of regulations in 10 CFR Part 20 if it determines the exemption is authorized by law and would not result in undue hazard to life or property. There are no provisions in the Atomic Energy Act (or in any other Federal statute) that impose a requirement to investigate and report on low-level radioactive waste shipments that have not been acknowledged by the recipient within 20 days of transfer. Therefore, the Commission concludes that there is no statutory prohibition on the issuance of the requested exemption and the Commission is authorized to grant the exemption by law.

The Commission acknowledges that, based on the statistical analysis of low-level radioactive waste shipments from the SONGS site, the need to investigate and report on shipments that take longer than 20 days could result in an excessive administrative burden on the licensee. The Commission finds that the underlying purpose of the Appendix G timing provision at issue is to investigate a late shipment that may be lost, misdirected, or diverted. For mixed-mode shipments, PG&E contracts awarded to carriers will require electronic data tracking system interchange, or similar tracking systems that allow monitoring the progress of the shipments. The contracts will require a daily update be provided for the location of the conveyance via email. Because of the oversight and monitoring of radioactive waste shipments throughout the entire journey from HBPP to the disposal site, it is unlikely that a shipment could be lost, misdirected, or diverted without the knowledge of the carrier or PG&E. Furthermore, by extending the elapsed time for receipt acknowledgment to 45 days before requiring investigations and reporting, a reasonable upper limit on shipment duration (based on

historical analysis) is still maintained if a breakdown of normal tracking systems were to occur. Consequently, the Commission finds that there is no hazard to life or property by extending the investigation and reporting time for low-level radioactive waste shipments from 20 days to 45 days for mixed-mode shipments. Therefore, the Commission concludes that the underlying purpose of 10 CFR Part 20, Appendix G, Section III.E will be met.

#### **4.0 CONCLUSION**

Accordingly, the Commission has determined that, pursuant to 10 CFR 20.2301, the exemption requested by PG&E in its September 4, 2009, letter is authorized by law and will not result in undue hazards to life or property. Therefore, the Commission hereby grants PG&E an exemption to extend the 20-day investigation and reporting requirements for shipments of low-level radioactive waste, as required by 10 CFR Part 20, Appendix G, Section III.E, to 45 days.

Pursuant to 10 CFR 51.31, the Commission has determined that the granting of this exemption will not have a significant effect on the quality of the human environment as documented in *Federal Register* (FR) notice 74 FR 65165 December 9, 2009.

This exemption is effective upon issuance.

Dated at Rockville, Maryland this 11<sup>th</sup> day of December, 2009.

FOR THE NUCLEAR REGULATORY COMMISSION

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