



[7590-01-P]

NUCLEAR REGULATORY COMMISSION

[Docket No. 50-133; License DPR-007; NRC-2012-0101]

Exemption of Material for Proposed Disposal Procedures for the Humboldt Bay Power Plant, Unit 3, Eureka, California

AGENCY: Nuclear Regulatory Commission.

ACTION: Environmental assessment and finding of no significant impact.

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SUPPLEMENTARY INFORMATION:

I. Introduction

The U.S. Nuclear Regulatory Commission (NRC) staff is considering a request dated June 7, 2011, as supplemented E-Mail dated January 9, 2012, by Pacific Gas and Electric Company (PG&E, the licensee) for alternate disposal of approximately 2,000,000 cubic feet of hazardous waste containing low-activity radioactive debris, at the US Ecology Idaho (USEI) Resource Conservation and Recovery Act (RCRA) Subtitle C hazardous disposal facility located near Grand View, Idaho. This request was made under the alternate disposal provision contained in Title 10 of the *Code of Federal Regulations* (10 CFR) 20.2002, and the exemption provision in 10 CFR 30.11.

This Environmental Assessment (EA) has been developed in accordance with the requirements of 10 CFR 51.21.

II. Environmental Assessment

Identification of Proposed Action

On July 2, 1976, Humboldt Bay Power Plant (HBPP) Unit 3 was shut down for annual refueling and to conduct seismic modifications. In 1983, updated economic analyses indicated that restarting Unit 3 would probably not be cost-effective, and in June 1983, Pacific Gas and Electric Company (PG&E) announced its intention to decommission the unit. On July 16, 1985, the U.S. Nuclear Regulatory Commission (NRC) issued Amendment No. 19 to the HBPP Unit 3 Operating License to change the status to possess-but-not-operate. In December of 2008, the transfer of spent fuel from the fuel storage pool to the dry-cask Independent Spent Fuel Storage Installation was completed, and the decontamination and dismantlement phase of HBPP Unit 3 decommissioning commenced.

PG&E requested NRC authorization for the disposal of waste from the HBPP at the US Ecology Idaho (USEI) facility in accordance with 10 CFR 20.2002. This waste would be generated during the decommissioning of the nuclear Unit 3. This waste consists of approximately 2,000,000 cubic feet (56,634 cubic meters) of hazardous waste, soil, and debris containing low-activity radioactive debris generated during the demolition of structures and remediation activities at Unit 3.

The waste would be transported by truck from HBPP in Eureka, CA to the USEI facility, Grand View, Idaho in the Owyhee Desert. The USEI facility is a Subtitle C RCRA hazardous waste disposal facility permitted by the State of Idaho. The USEI site has both natural and engineered features that limit the transport of radioactive material. The natural features include the low precipitation rate [i.e., 18.4 cm/y (7.4 in. per year)] and the long vertical distance to groundwater (i.e., 61-meter (203-ft) thick on average unsaturated zone below the disposal zone). The engineered features include an engineered cover, liners and leachate monitoring systems. Because the USEI facility is not licensed by the NRC, this proposed action would

require the NRC to exempt the low-contaminated material authorized for disposal from further AEA and NRC licensing requirements.

Need for Proposed Action:

The subject waste material consists of hazardous waste, soil, and debris containing low-activity radioactive debris generated during the demolition of structures and remediation activities at Unit 3. This proposed alternate disposal would conserve low-level radioactive waste disposal capacity.

Environmental Impacts of the Proposed Action:

The NRC staff has reviewed the evaluation performed by the Licensee to demonstrate compliance with the 10 CFR 20.2002 alternate disposal criteria. Under these criteria, a licensee may seek NRC authorization to dispose of licensed material using procedures not otherwise authorized by the NRC's regulations. A licensee's supporting analysis must show that the radiological doses arising from the proposed 10 CFR 20.2002 disposal will be as low as reasonably achievable and within the 10 CFR Part 20 dose limits.

PG&E performed a radiological assessment in consultation with USEI. Based on this assessment, PG&E concludes that potential doses to members of the public, including workers involved in the transportation and placement of this waste will be approximately one millirem total effective dose equivalent (TEDE) in one calendar year for this project, and well within the "few millirem" criteria that the NRC has established.

The staff evaluated activities and potential doses associated with transportation, waste handling and disposal as part of the review of this 10 CFR 20.2002 application. The projected doses to individual transportation and USEI workers have been appropriately estimated and are demonstrated to meet the NRC's alternate disposal requirement of contributing a dose of not more than "a few millirem per year" to any member of the public. Independent review of the post-closure and intruder scenarios confirmed that the maximum projected dose over a period

of 1,000 years is also within “a few millirem per year.” Additionally, the proposed action will not significantly increase the probability or consequences of accidents and there is no significant increase in occupational or public radiation exposures.

With regard to potential non-radiological impacts, the proposed action does not have a potential to affect any historic sites. The proposed action does not affect non-radiological plant effluents, air quality or noise.

The proposed action and attendant exemption of the material from further AEA and NRC licensing requirements will not significantly increase the probability or consequences of accidents, no changes are being made in the types of any effluents that may be released off site, and there is no significant increase in occupational or public radiation exposure.

Environmental Impacts of the Alternatives to the Proposed Action:

Due to the very small amounts of radioactive material involved, the environmental impacts of the proposed action are small. Therefore, the only alternative the staff considered is the no-action alternative, under which the staff would deny the disposal request. This denial of the request would result in no change in current environmental impacts. The environmental impacts of the proposed action and the no-action alternative are therefore similar and the no-action alternative is accordingly not further considered.

Conclusion

The NRC staff has concluded that the proposed action will not significantly impact the quality of the human environment, and that the proposed action is the preferred alternative.

Agencies and Persons Consulted

The NRC provided a draft of this Environmental Assessment to the State of Idaho Department of Environmental Quality for review on February 29, 2012. The State had no comments.

The NRC staff has determined that the proposed action is of a procedural nature, and will not affect listed species or critical habitat. Therefore, no further consultation is required under Section 7 of the Endangered Species Act. The NRC staff has also determined that the proposed action is not the type of activity that has the potential to cause effects on historic properties. Therefore, no further consultation is required under Section 106 of the National Historic Preservation Act.

III. Finding of No Significant Impact

The NRC staff has prepared this EA in support of the proposed action. On the basis of this EA, the NRC finds that there are no significant environmental impacts from the proposed action, and that preparation of an environmental impact statement is not warranted. Accordingly, the NRC has determined that a Finding of No Significant Impact is appropriate.

IV. Further Information

Documents related to this action, including the application and supporting documentation, are available online in the NRC Library at <http://www.nrc.gov/reading-rm/adams.html>. From this site, you can access the NRC's Agencywide Document Access and Management System (ADAMS), which provides text and image files of NRC's public documents. The documents related to this action are listed below, along with their ADAMS numbers.

- (1) Letter dated June 7, 2011, "Humboldt Bay Power Plant Unit 3, Request for 10 CFR 20.2002 Alternate Disposal Approval and 10 CFR 30.11 Exemption of Humboldt Bay Power Plant Waste for Disposal at US Ecology Idaho [ADAMS Accession Number ML11160A211].
- (2) E-Mail dated January 9, 2012, providing responses to a request for additional information and corrected information for the prior submittal [ADAMS Accession Number ML120330349].

(3) NRC letter dated November 2, 2010, approving prior request from Humboldt Bay for 10 CFR 20.2002 alternate disposal and 10 CFR 30.11 exemption [ADAMS Accession Number ML102870344].

If you do not have access to ADAMS, or if there are problems in accessing the documents located in ADAMS, contact the NRC Public Document Room (PDR) Reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to *pdr@nrc.gov*. These documents may also be viewed electronically on the public computers located at the NRC's PDR, O 1 F21, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852. The PDR reproduction contractor will copy documents for a fee.

Dated at Rockville, Maryland, this 25th day of April, 2012.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

/RA/

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