

NUCLEAR REGULATORY COMMISSION  
DOCKET NO. 72-17

ENVIRONMENTAL ASSESSMENT OF THE PORTLAND GENERAL ELECTRIC COMPANY'S  
LICENSE AMENDMENT REQUEST FOR THE TROJAN INDEPENDENT SPENT FUEL  
STORAGE INSTALLATION IN COLUMBIA COUNTY, OREGON

**1. INTRODUCTION**

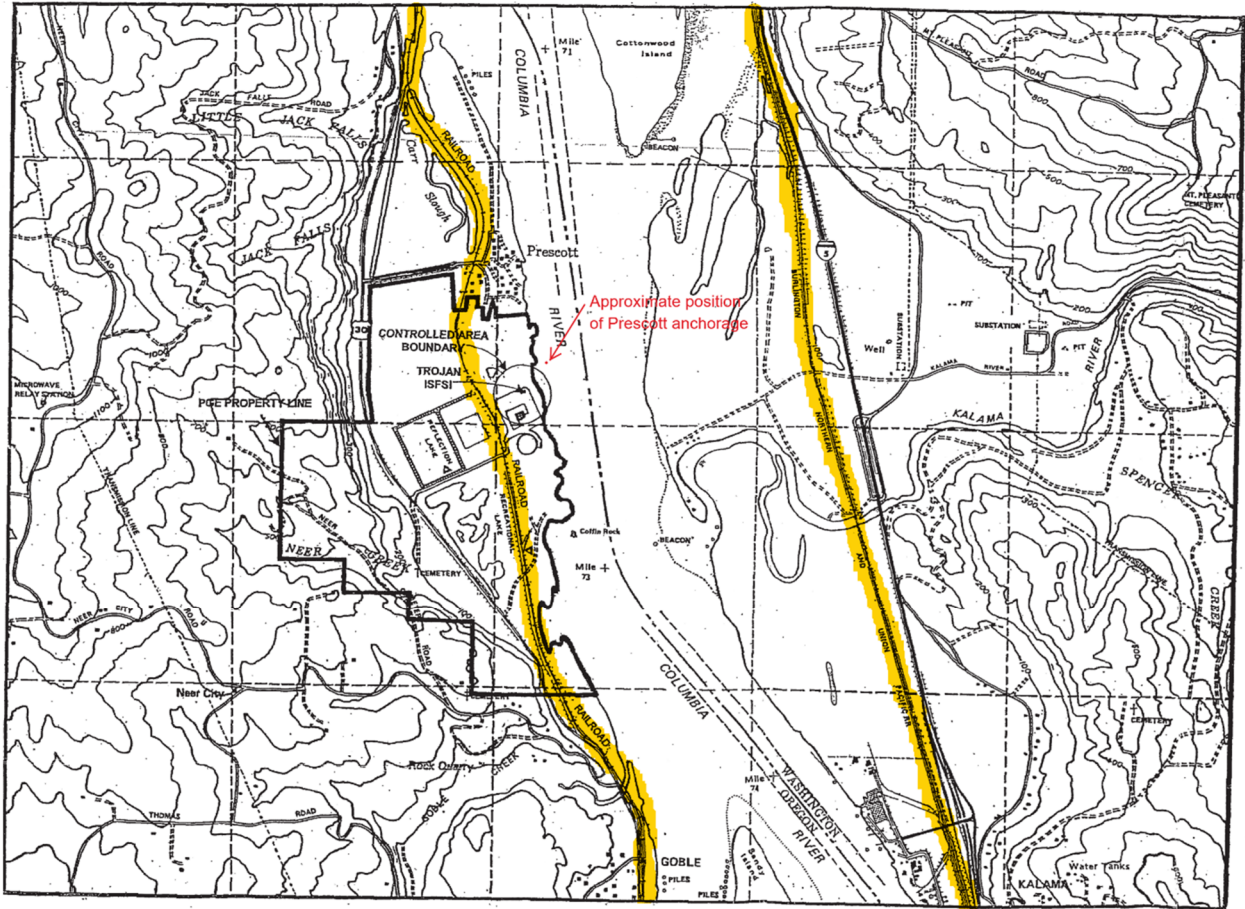
By letter dated March 10, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20083G798), Portland General Electric Company (PGE) submitted a request to the U.S. Nuclear Regulatory Commission (NRC) to amend its license for the Trojan Independent Spent Fuel Storage Installation (ISFSI), located in Columbia County, Oregon, in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 72.56. Specifically, PGE requested to revise the description of the explosion accident events evaluation in the safety analysis report (SAR). The revised description would address a new anchorage point on the Columbia River near the ISFSI and incorporate a new method of evaluating offsite explosion accident events.

The NRC staff will perform both a safety evaluation and an environmental review to determine whether to grant PGE's amendment request. Specifically, the NRC staff will evaluate the potential safety impacts from offsite explosion accident events to the Trojan ISFSI and evaluate the potential for any danger to life or property or the common defense and security in the safety review. The NRC staff will document its safety review and analysis findings in a separate safety evaluation report.

The environmental review is documented in this environmental assessment (EA) which the NRC staff prepared in accordance with 10 CFR 51.21 and 51.30(a) as well as the National Environmental Policy Act of 1969 (NEPA). The preparation of this EA is being coordinated with the development of the safety evaluation report. This EA defines the NRC's proposed action in Section 2 and the purpose and need for the proposed action in Section 3. The evaluation of the potential environmental impacts of the proposed action is presented in Section 4, the environmental impacts of the alternative to the proposed action is found in Section 5, and the NRC's conclusion is summarized in Section 7. Section 6 discusses the agencies with whom the NRC consulted in the development of this EA.

**2. THE PROPOSED ACTION**

PGE has submitted a request to amend its license, SNM-2509, which authorizes it to receive, store, and transfer spent fuel from the decommissioned Trojan Nuclear Power Plant. PGE seeks authorization to revise a portion of the Trojan ISFSI SAR. Specifically, the proposed action would allow PGE to revise the description of offsite explosion accident events. The revised description would discuss a new evaluation of potential explosion events from both rail and shipping traffic including a new anchorage point in the Prescott Anchorage Area. The approximate location of the Prescott Anchorage Area, as well as the rail lines, associated with the revised offsite explosion accident evaluation are shown in Figure 2.1 below.



**Figure 2.1**

**3. NEED FOR THE PROPOSED ACTION**

PGE needs to revise the SAR and its evaluation of explosion accident events to address a new anchorage point installed by the United States Army Corps of Engineers in the Columbia River just outside the Trojan ISFSI Controlled Area Boundary. In the course of reviewing its existing explosion event evaluation, PGE also identified a need to better substantiate statements in the Trojan ISFSI SAR regarding the design basis explosion event and thus seeks to incorporate a comprehensive new evaluation into the Trojan ISFSI SAR.

**4. ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION**

This EA evaluates the potential environmental impacts of approving an amendment to allow PGE to revise the SAR to address a new anchorage point in the Columbia River just outside the Trojan ISFSI Controlled Area Boundary and to better substantiate statements in the Trojan ISFSI SAR regarding the design basis explosion event by incorporating a comprehensive new evaluation into the Trojan ISFSI SAR.

The amendment request does not involve any changes to the ISFSI design or operation. Nor would it change any procedures (e.g., operational, maintenance, inspection, etc.). In addition, the amendment request does not involve the disturbance of land, nor the construction of any new facilities.

On June 26, 2019, the NRC issued an EA for renewal of the Trojan ISFSI license (ML19058A264). The license renewal EA found that continued operation of the Trojan ISFSI for an additional 40 years will not significantly affect the quality of the environment. In assessing potential environmental impacts, the license renewal EA discussed the effects of design-basis accidents that could occur during storage. Design-basis accidents account for the resultant effects on the ISFSI from human-induced events and the most severe natural phenomena reported for the site as well as the surrounding area. The license renewal EA indicated that, of the twelve design-basis and beyond-design-basis accidents PGE had identified in its SAR, only three have radiological consequences. Notably, offsite explosion events did not have radiological consequences.

PGE's proposed amendment request would revise the SAR to address a new anchorage point in the Columbia River just outside the Trojan ISFSI Controlled Area Boundary and incorporate a comprehensive new explosion evaluation. The new evaluation concludes, consistent with the prior evaluation, that offsite explosions would not have radiological consequences. In the evaluation, explosion accidents were found to either not be credible or to produce an overpressure force that did not exceed the design criteria. As a result, in the event of an offsite explosion event, there is no increased risk of loss of structural, confinement, shielding or heat removal capabilities.

The NRC staff finds that the environmental impacts from PGE's requested action, if approved by NRC, are bounded by the environmental impacts discussed in the EA for renewal of the Trojan ISFSI license for the following reasons. First, PGE's requested amendment involves no changes to the ISFSI design or operation. Second, the SAR revision is limited to adding a more comprehensive evaluation of offsite explosion events. Third, the evaluation results remain the same as the previous evaluation.

The NRC staff also finds that occupational exposure and offsite dose rates will not increase if this amendment request is approved, and that the dose rates will remain within applicable 10 CFR Part 20 limits. This is because the proposed action will not change either the types or amounts of any effluent released, not significantly increase either individual or cumulative radiation exposures, and not significantly increase either the potential for or consequences of radiological accidents. Therefore, the proposed amendment request, if granted, will not result in radiological or non-radiological environmental impacts that significantly differ from impacts evaluated in the EA supporting the Trojan ISFSI license renewal. Based upon the foregoing discussion, the NRC finds that approving the amendment will not significantly impact the quality of the human environment.

## **5. ENVIRONMENTAL IMPACTS OF THE ALTERNATIVES TO THE PROPOSED ACTION**

In addition to the proposed action, the staff also considered the no-action alternative—the NRC denial of the amendment request. Denial of the amendment request would prevent the licensee from updating the Trojan ISFI SAR. Since offsite explosive events will not have radiological consequences, denial of the amendment request will not prevent the licensee from continuing to safely store spent nuclear fuel. Therefore, the NRC staff has determined that the environmental impact of the no-action alternative would be the same as the proposed action; therefore, the proposed action is preferred.

## **6. AGENCIES CONSULTED**

The NRC provided the Oregon Health Authority a draft copy of this EA for review in an email dated August 27, 2020 (NRC 2020a). In an email dated September 30, 2020 (OHA 2020), the Oregon Health Authority stated that it agreed with the NRC's determinations and finding of no significant impact for PGE's proposed amendment.

### Endangered Species Act (ESA) Section 7 Consultation

Section 7 of the Endangered Species Act requires Federal agencies to consult with the U.S. Fish and Wildlife Service or National Marine Fisheries Service regarding actions that may affect listed species or designated critical habitats. The Endangered Species Act is intended to prevent further decline of endangered and threatened species and restore those species and their critical habitat. The NRC staff determined that a consultation under Section 7 of the Endangered Species Act is not required because the proposed action will not affect listed species or critical habitat.

### National Historic Preservation Act Section 106 Consultation

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effects of their undertakings on historic properties. As stated in the NHPA, historic properties are any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places.

The NRC determined that the scope of activities described in the amendment request do not have the potential to cause effects on historic properties because the NRC's approval of this amendment request will not authorize new construction or land disturbance activities. The NRC staff also determined that the proposed action is not a type of activity that has the potential to impact historic properties because the proposed action would occur within the established Trojan ISFSI site boundary and would not result in changes to the design or operation of the ISFSI. Therefore, in accordance with 36 CFR 800.3(a)(1), no consultation is required under Section 106 of NHPA.

## **7. CONCLUSION AND FINDING OF NO SIGNIFICANT IMPACT**

The environmental impacts of the proposed action have been reviewed under the requirements in 10 CFR Part 51. The amendment request, if approved, would allow PGE to revise the SAR to address a new anchorage point in the Columbia River just outside the Trojan ISFSI Controlled Area Boundary and to better substantiate statements in the Trojan ISFSI SAR regarding the design basis explosion event by incorporating a comprehensive new evaluation into the Trojan ISFSI SAR. In this EA, the NRC determined that the environmental impacts of approving this amendment will be no greater than if the NRC denied the amendment request (no-action alternative). No changes are expected in the types or quantities of effluents that may be released offsite from the implementation of the license amendment request, if approved, and there would not be significant increase expected in occupational or public radiation exposures in approving this amendment request for PGE. Accordingly, the NRC has determined that a finding of no significant impact (FONSI) is appropriate pursuant to 10 CFR 51.31 and an environmental impact statement is not warranted. The NRC will publish the FONSI in the *Federal Register*.

## 8. REFERENCES

The documents referenced in this EA are all publicly available. The references are available for public inspection and copying at NRC's Public Document Room, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. Documents available through the NRC's Agencywide Document Access and Management System (ADAMS) at <http://www.nrc.gov/reading-rm/adams.html> have an Accession No. provided.

10 CFR Part 51. *Code of Federal Regulations*, Title 10, Energy, Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions." Washington, D.C.

10 CFR Part 72. *Code of Federal Regulations*, Title 10, Energy, Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater Than Class C Waste." Washington, D.C.

10 CFR Part 20. *Code of Federal Regulations*, Title 10, Energy, Part 20, "Standards for Protection Against Radiation." Washington, D.C.

Endangered Species Act of 1973, as amended. 16 USC §1531 *et seq.*

National Historic Preservation Act of 1966. 16 USC § 470 *et seq.*

PGE 2020. Letter from Portland General Electric Company to NRC "Trojan Site-Specific Independent Spent Fuel Storage Installation (ISFSI) License Change Application (LCA) 72-08, Potential Explosion Effects on ISFSI" March 10, 2020. ADAMS Accession No. ML20083G798.

NRC 2020a. Email from NRC to Oregon Health Authority, "Review of Draft EA." August 27, 2020. ADAMS Accession No. ML20244A153.

OHA 2020. Email from Oregon Health Authority. "Re: Review of Draft EA." September 30, 2020. ADAMS Accession No. ML20275A254.