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VPN-074-2004

Trojan Nuclear Plant  
Docket No. 50-344  
License No. NPF-1

Director, Region IV  
Division of Nuclear Materials and Safety  
U. S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011-8064

Records Required to be Forwarded to Nuclear Regulatory Commission (NRC)  
Region IV Office Prior to Termination of the Trojan Nuclear Plant License

In preparation for termination of the Trojan Nuclear Plant License No. NPF-1, this letter addresses NRC requirements for the forwarding of records prior to termination of a license, and documents the manner in which Portland General Electric Company (PGE) has met these requirements. Specifically, the Trojan Nuclear Plant 10 CFR 50 license contains conditions that allow receipt, possession, and use of byproduct, source, and special nuclear material in accordance with the requirements of 10 CFR 30, 40, and 70, respectively. In preparation for termination of the Trojan Nuclear Plant license, PGE has reviewed the requirements of 10 CFR 50, as well as those contained in 10 CFR 30, 10 CFR 40, and 10 CFR 70, and has identified several regulations requiring the forwarding of specified records to the NRC prior to license termination. These requirements include the following:

Record Forwarding Requirements	
10 CFR 30.51(d)	Prior to license termination, each licensee authorized to possess radioactive material with a half-life greater than 120 days, in an unsealed form, shall forward the following records to the appropriate NRC Regional Office: (1) Records of disposal of licensed material made under §§20.2002 (including burials authorized before January 28, 1981), 20.2003, 20.2004, 20.2005; and (2) Records required by §20.2103(b)(4).
10 CFR 30.51(f)	Prior to license termination, each licensee shall forward the records required by §30.35(g) to the appropriate NRC Regional Office.
10 CFR 40.61(d)	Prior to license termination, each licensee authorized to possess source material, in an unsealed form, shall forward the following records to the appropriate NRC Regional Office: (1) Records of disposal of licensed material made under §20.2002 (including burials authorized before January 28, 1981), 20.2003, 20.2004, 20.2005; and (2) Records required by §20.2103(b)(4).
10 CFR 40.61(f)	Prior to license termination, each licensee shall forward the records required by §40.36(f) to the appropriate NRC Regional Office.
10 CFR 70.51(a)	Before license termination, licensees shall forward the following records to the appropriate NRC Regional Office: (1) Records of disposal of licensed material made under §20.2002 (including burials authorized before January 28, 1981), 20.2003, 20.2004, 20.2005; (2) Records required by §20.2103(b)(4); and (3) Records required by §70.25(g).

As indicated in the table above, the record forwarding requirements of 10 CFR 30.51(d)(1), 10 CFR 40.61(d)(1), and 10 CFR 70.51(a)(1) are similar and thus may be addressed collectively. Specifically, these regulations require a licensee to forward to the appropriate NRC Regional Office, prior to license termination, those records of disposal of licensed material made under 10 CFR 20.2002 (including burials authorized before January 28, 1981), 20.2003, 20.2004, 20.2005. These 10 CFR 20 regulations address in respective order: (1) applications made to NRC for licensed material disposal in a manner not covered by regulations; (2) disposal of licensed material by release into sanitary sewerage; (3) treatment or disposal of licensed material by incineration; and (4) disposal of specific wastes as if they were not radioactive. Because PGE has not disposed of licensed material under 10 CFR 20.2002, 20.2003, 20.2004, and/or 20.2005, Trojan Nuclear Plant records of such disposals do not exist. Therefore, PGE considers the requirements of 10 CFR 30.51(d)(1), 10 CFR 40.61(d)(1), and 10 CFR 70.51(a)(1) satisfied for Trojan Nuclear Plant license termination.

As indicated in the table above, the record forwarding requirements of 10 CFR 30.51(d)(2), 10 CFR 40.61(d)(2), and 10 CFR 70.51(a)(2) are similar and thus may be addressed collectively. Specifically, these regulations require a licensee to forward to the appropriate NRC Regional

Office, prior to license termination, those records required by 10 CFR 20.2103(b)(4). This 10 CFR 20 regulation addresses records of the results of measurements and calculations used to evaluate the release of radioactive effluents to the environment, including those required under the standards for protection against radiation in effect prior to January 1, 1994. From the beginning of Trojan Nuclear Plant commercial operation in 1976 and continuing through the first half of 1993, the results of measurements and calculations used to evaluate the release of radioactive effluents from the Trojan Nuclear Plant to the environment were documented in a Radioactive Effluent Release Report that was submitted to the NRC semiannually (every six months). One of the two Radioactive Effluent Release Reports submitted to the NRC each year was incorporated into PGE Topical Report No. PGE-1015, "Annual Report of Trojan Nuclear Plant," and the other semiannual reports were provided to the NRC by PGE forwarding letters. Beginning with the report for calendar year 1993 when the Trojan Nuclear Plant operating license was amended to a "Possession Only" license, and continuing to the present, these results have been documented and submitted to the NRC annually. The 1993 Annual Radioactive Effluent Release Report was submitted as an enclosure to PGE Letter No. VPN-019-94 dated April 25, 1994. For reporting years from 1994 to present, these results have been submitted to the NRC as PGE Topical Report No. PGE-1065, "Trojan Nuclear Plant Annual Radioactive Effluent Release Report." One final Annual Radioactive Effluent Release Report for 2004 will be submitted to the NRC prior to Trojan Nuclear Plant license termination, currently anticipated in the first quarter of 2005. With the prior submittal to the NRC of those records required by 10 CFR 20.2103(b)(4) as described above, PGE's submittal of the 2004 report will satisfy the requirements of 10 CFR 30.51(d)(2), 10 CFR 40.61(d)(2), and 10 CFR 70.51(a)(2).

As indicated in the table above, the record forwarding requirements of 10 CFR 30.51(f), 10 CFR 40.61(f), and 10 CFR 70.51(a)(3) are similar and thus may be addressed collectively. Specifically, these regulations require a licensee to forward to the appropriate NRC Regional Office, prior to license termination, those records of information important to facility decommissioning as required by Paragraphs (1), (2), (3), and (4) of 10 CFR 30.35(g), 10 CFR 40.36(f), and 10 CFR 70.25(g), respectively. The record forwarding requirements of 10 CFR 30.51(f), 10 CFR 40.61(f), and 10 CFR 70.51(a)(3) are satisfied as described below.

Paragraph (1) of 10 CFR 30.35(g), 10 CFR 40.36(f), and 10 CFR 70.25(g) addresses records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment or site. PGE has previously provided this information applicable to the Trojan Nuclear Plant to the NRC in several different submittals. First, spills or other unusual occurrences involving the spread of contamination are described in PGE-1061, "Trojan Nuclear Plant Defueled Safety Analysis Report and License Termination Plan (PGE-1078)," Section 3.1.2.2.2, "Operational Events," and Appendix 3-1, "Summary of Notable Radiological Contamination Events." This information was originally submitted to and approved by the NRC as part of the Trojan Nuclear Plant Decommissioning Plan in the mid-1990s, and subsequently was resubmitted to and approved by the NRC as part of the Trojan Nuclear Plant License

Termination Plan.<sup>1</sup> Periodic updates of PGE-1061 have continued to be forwarded to the NRC as specified in 10 CFR 50.71(e). Second, known information related to contamination resulting from plant operations that existed following permanent plant shutdown and prior to decommissioning remediation is documented in PGE-1061, Chapter 3, and the Trojan Nuclear Plant Site Characterization Report, Revision 0.1, dated February 8, 1995, which was submitted to the NRC by PGE Letter No. VPN-102-99 dated December 27, 1999. Third, known information related to contamination resulting from plant operations, including identification of nuclides, quantities, forms, and concentrations, that will remain on the Trojan Nuclear Plant site following license termination is presented in the Trojan Nuclear Plant Final Survey Reports submitted by PGE to the NRC.<sup>2</sup> Finally, additional known information related to contamination resulting from plant operations, including identification of nuclides, quantities, forms, and concentrations, is presented in the Trojan Nuclear Plant Groundwater Report, Revision 1, which PGE transmitted to the NRC by PGE Letter No. VPN-037-2004 dated May 5, 2004, as supplemented by PGE Letter No. VPN-048-2004 dated August 12, 2004.

Paragraph (2) of 10 CFR 30.35(g), 10 CFR 40.36(f), and 10 CFR 70.25(g) requires records to include as-built drawings and modifications of structures and equipment in restricted areas where radioactive materials are used and/or stored and of locations of possible inaccessible contamination such as buried pipes which may be subject to contamination. This paragraph further allows that if drawings are not available, the licensee shall substitute appropriate records of available information concerning these areas and locations. PGE has previously provided this information to the NRC as it is incorporated into the Final Survey Reports submitted by PGE to the NRC as cited in the preceding paragraph. The Final Survey Reports include isometric drawings and/or other engineering drawings that depict structures, systems, and embedded piping within the Trojan Nuclear Plant Restricted Area that have undergone final survey in accordance with NRC-approved final survey methodology. These reports and the report drawings indicate the location, type, and number of survey measurements taken within the Restricted Area to identify any remaining residual radioactivity and to verify that this radioactivity, including inaccessible contamination within embedded piping, is well below regulatory limits allowing

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<sup>1</sup> The NRC approved the Trojan Nuclear Plant Decommissioning Plan as documented in NRC Letter dated December 18, 1995, and accompanying Safety Evaluation Report dated December 1995. The NRC approved the Trojan Nuclear Plant License Termination Plan as documented in NRC Letter and accompanying Safety Evaluation Report dated February 12, 2001 (TAC No. MA6216).

<sup>2</sup> These reports, which verify and document that residual radioactivity levels remaining on site are less than regulatory site release criteria, were submitted by PGE Letter Nos. VPN-067-96 dated October 30, 1996 (Final Survey Report for Trojan ISFSI Site); VPN-059-2003 dated October 31, 2003, as supplemented by VPN-028-2004 dated March 11, 2004 (Final Survey Report for Containment Building Interior); VPN-026-2004 dated March 30, 2004 (Final Survey Report for Main Steam Support Structure, Electrical Penetration Area, and Steam Generator Blowdown Building); VPN-057-2004 dated October 12, 2004 (Final Survey Report for Turbine Building and Control Building Interiors); VPN-063-2004 dated November 10, 2004 (Final Survey Report for Embedded Piping); VPN-069-2004 dated November 22, 2004 (Final Survey Report for Remaining Plant Secondary Systems); VPN-071-2004 dated December 3, 2004 (Final Survey Report for Auxiliary Building Interior); VPN-073-2004 dated December 15, 2004 (Final Survey Report for Fuel Building Interior); VPN-076-2004 dated December 16, 2004 (Final Survey Report for Spent Fuel Pool Impacted Areas); and VPN-077-2004 dated December 20, 2004 (Final Survey Report for Support Facilities and Site Grounds).

release of the Trojan Nuclear Plant site for unrestricted use. Based on the above, and as confirmed during recent telephone communications with the NRC Staff, it is concluded that these Final Survey Report drawings satisfy the intent of Paragraph (2) of 10 CFR 30.35(g), 10 CFR 40.36(f), and 10 CFR 70.25(g).

Paragraph (3) of 10 CFR 30.35(g), 10 CFR 40.36(f), and 10 CFR 70.25(g) requires, except for specified areas, records to include a list contained in a single document and updated every two years, of the following: (i) all areas designated and formerly designated as restricted areas as defined under 10 CFR 20.1003; (ii) all areas outside of restricted areas that require documentation under 10 CFR 30.35(g)(1), 40.36(f)(1), or 70.25(g)(1) (regarding spills); (iii) all areas outside of restricted areas where current and previous wastes have been buried as documented under 10 CFR 20.2108; and (iv) all areas outside of restricted areas that contain material such that, if the license expired, the licensee would be required to either decontaminate the area to meet the criteria for decommissioning in 10 CFR 20, Subpart E, or apply for approval for disposal under 10 CFR 20.2002. Consistent with Item (3)(i), the designated Trojan Nuclear Plant Restricted Area is indicated in PGE-1061, "Trojan Nuclear Plant Defueled Safety Analysis Report and License Termination Plan (PGE-1078)," a single document that is updated and submitted to the NRC at least every two years pursuant to the requirements of 10 CFR 50.71(e).<sup>3</sup> There are no Trojan Nuclear Plant records related to Item (3)(ii) because there have been no spills outside the Trojan Nuclear Plant Restricted Area. There are no Trojan Nuclear Plant records related to Item (3)(iii) because there have been no licensed material wastes buried outside the Trojan Nuclear Plant Restricted Area. There are no Trojan Nuclear Plant records related to Item (3)(iv) because there are no areas outside the Trojan Nuclear Plant Restricted Area that require decontamination or application for approval of disposal under 10 CFR 20.2002.

Paragraph (4) of 10 CFR 30.35(g), 10 CFR 40.36(f), and 10 CFR 70.25(g) addresses records of the cost estimate performed for the decommissioning funding plan, and records of the funding method used for assuring funds. PGE has previously provided this information to the NRC. Specifically, the Trojan Nuclear Plant decommissioning cost estimate and associated funding plan are incorporated into Chapter 5 of PGE-1061, "Trojan Nuclear Plant Defueled Safety Analysis Report and License Termination Plan (PGE-1078)." This cost estimate and funding plan is updated annually to reflect actual decommissioning progress, and a copy of the annual update is forwarded to the NRC concurrent with the decommissioning funding status report required by 10 CFR 50.75(f)(1).<sup>4</sup> In addition, extensive detail supporting the PGE-1061 Chapter 5 decommissioning cost estimate and funding plan information was forwarded to the NRC by PGE Letter No. VPN-095-99 dated November 23, 1999. With the prior submittal to the

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<sup>3</sup> The Trojan Nuclear Plant Industrial Area graphically depicted in PGE-1061, Figure 2-1, is the Trojan Nuclear Plant Restricted Area as defined in 10 CFR 20.1003.

<sup>4</sup> The reporting requirement of 10 CFR 50.75(f)(1) was promulgated in a final rulemaking effective November 23, 1998 (63 FR 50465 dated September 22, 1998). Trojan Nuclear Plant reports submitted pursuant to this requirement were forwarded to the NRC via PGE Letter Nos. VPN-008-99 dated March 8, 1999; VPN-002-2000 dated March 29, 2000; VPN-016-2001 dated March 29, 2001; VPN-023-2002 dated March 28, 2002; VPN-021-2003 dated March 27, 2003; and VPN-025-2004 dated March 30, 2004.

NRC of those records applicable to the Trojan Nuclear Plant and required by Paragraphs (1), (2), (3), and (4) of 10 CFR 30.35(g), 10 CFR 40.36(f), and 10 CFR 70.25(g), as described above, PGE considers the requirements of 10 CFR 30.51(f), 10 CFR 40.61(f), and 10 CFR 70.51(a)(3) satisfied for Trojan Nuclear Plant license termination.

With the documentation of records forwarded to the NRC in prior PGE submittals and the commitment to forward the 2004 Annual Radioactive Effluent Release Report to the NRC prior to Trojan Nuclear Plant license termination as cited herein, this letter satisfies the NRC requirements contained in 10 CFR 30, 10 CFR 40, and 10 CFR 70 and applicable to PGE for the forwarding of records to the appropriate NRC Regional Office prior to termination of the Trojan Nuclear Plant license. If there are any questions regarding this letter, please contact Mr. Jerry D. Reid of my staff at (503) 556-6474.

Sincerely,



Stephen M. Quennoz  
Vice President, Generation

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