May 23, 2005

Mr. Stephen M. Quennoz, Vice President Power Supply/Generation Portland General Electric Company Trojan Nuclear Plant 71760 Columbia River Highway Rainier, Oregon 97048

# SUBJECT: TERMINATION OF TROJAN NUCLEAR PLANT FACILITY OPERATING LICENSE NO. NPF-1

Dear Mr. Quennoz:

On December 20, 2004, Portland General Electric Company (PGE) submitted an application for termination of the Trojan Nuclear Plant (TNP) Facility Operating (Possession Only) License No. NPF-1. The application states that PGE has completed remaining radiological decommissioning and final status surveys (FSSs) of the TNP facility and site in accordance with the NRC-approved license termination plan (LTP), and the FSSs demonstrate that the facility and site meet the criteria for decommissioning and release of the site for unrestricted use that are stipulated in 10 CFR Part 20, Subpart E.

The U.S. Nuclear Regulatory Commission (NRC) staff has completed the review of the FSS Reports (FSSRs) and concludes in accordance with 10 CFR 50.82 that: (I) Dismantlement and decontamination activities were performed in accordance with the approved LTP, and (ii) The FSSRs and associated documentation, including an assessment of dose contributions associated with parts released for use before approval of the LTP, demonstrate that the facility and site have met the criteria for decommissioning in 10 CFR Part 20, subpart E. Therefore, License NPF-1 is terminated, effective May 23, 2005.

Under the 10 CFR Part 50 license, PGE maintains a quality assurance (QA) program that was previously approved by the NRC as satisfying the requirements of 10 CFR Part 50, Appendix B. Pursuant to 10 CFR 71.101(f) and 10 CFR 72.140(d), PGE applies this program to satisfy the QA requirements of 10 CFR Part 71, Subpart H, and 10 CFR Part 72, Subpart G. PGE letter VPN-001-2005, dated January 21, 2005, states that, upon receipt of NRC approval of PGE-8010, "Trojan Nuclear Quality Assurance Program," proposed Revision 28, and concurrent with Trojan Nuclear Plant license termination, PGE will issue the approved PGE-8010, Revision 28, to satisfy the quality assurance requirements of 10 CFR Part 71, Subpart H, and 10 CFR Part 72, Subpart G. The NRC has reviewed PGE-8010, proposed Revision 28, and issued Quality Assurance Program Approval for Radioactive Material Packages No. 0327, Revision No. 15, to be effective on the date of the 10 CFR Part 50 license termination. This approval will satisfy the requirements of 10 CFR 71.17(b) and 71.101©) for a QA program approved by the NRC. In accordance with the provisions of 10 CFR 72.140(d), this previously approved QA program will be accepted as satisfying the requirements of 10 CFR 72.140 (b), except that the licensee shall

#### S. Quennoz

also meet the recordkeeping requirements of 10 CFR 72.174. PGE-8010 describes how the recordkeeping requirements of 10 CFR 72.174 will be met. Therefore, upon issuance of PGE-8010, PGE will satisfy the QA requirements of 10 CFR Part 71, Subpart H, and 10 CFR Part 72, Subpart G.

As a condition of the termination of License NPF-1, PGE is required to maintain \$100 million in nuclear liability insurance coverage, as described in Indemnity Agreement No. B-78, "until all the radioactive material has been removed from the location and transportation of the radioactive material from the location has ended as defined in subparagraph 5(b), Article I, or until the Commission authorizes the termination or modification of such financial protection." Termination of the TNP 10 CFR Part 50 license has no impact on the terms of the indemnity agreement. Further, it should be noted that the site location described in Item 4 of the attachment to the indemnity agreement means the "original" 10 CFR Part 50 license site boundaries. PGE shall incorporate its commitment to maintain \$100 million in nuclear liability insurance coverage into the TNP ISFSI Safety Analysis Report to ensure that the liability insurance coverage level shall not be reduced below the minimum \$100 million amount without prior NRC approval.

The staff's review of the FSSRs is documented in the enclosed Safety Evaluation Report. Enclosure 2 is the Notice of Termination which is being sent to the <u>Federal Register</u> for publication.

In accordance with 10 CFR 2.390 of the NRC's "Rules of General Applicability," a copy of this letter will be available electronically in the NRC Public Document Room or from the Publically Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <u>http://www.nrc.gov/reading-rm/adams.html</u>.

If you have any questions please contact John Buckley at (301) 415-6607.

Sincerely,

/**RA**/

Daniel M. Gillen, Deputy Director Decommissioning Directorate Division of Waste Management and Environmental Protection Office of Nuclear Material Safety and Safeguards

Enclosures: 1. Safety Evaluation Report 2. <u>Federal Register</u> Notice

Docket No.: 50-344 License No.: NFP-1

cc: Trojan distribution list

also meet the recordkeeping requirements of 10 CFR 72.174. PGE-8010 describes how the recordkeeping requirements of 10 CFR 72.174 will be met. Therefore, upon issuance of PGE-8010, PGE will satisfy the QA requirements of 10 CFR Part 71, Subpart H, and 10 CFR Part 72, Subpart G.

Although the NRC is terminating License NPF-1, PGE is required to maintain \$100 million in nuclear liability insurance coverage, as described in Indemnity Agreement No. B-78, "until all the radioactive material has been removed from the location and transportation of the radioactive material from the location has ended as defined in subparagraph 5(b), Article I, or until the Commission authorizes the termination or modification of such financial protection." Termination of the TNP 10 CFR Part 50 license has no impact on the terms of the indemnity agreement. Further, it should be noted that the site location described in Item 4 of the attachment to the indemnity agreement means the "original" 10 CFR Part 50 license site boundaries. PGE shall incorporate its commitment to maintain \$100 million in nuclear liability insurance coverage into the TNP ISFSI Safety Analysis Report to ensure that the liability insurance coverage level shall not be reduced below the minimum \$100 million amount without prior NRC approval.

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Enclosures: 1. Safety Evaluation Report 2. <u>Federal Register</u> Notice

Docket No.: 50-344 License No.: NFP-1

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AME	JBuckley*		BWatson*		TMixon*		CRegan*		CCraig*		DGillen	
DATE	3/7/05		3/7/05		3/7/05		3/15/05		3/10/05		5/23/05	

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## SAFETY EVALUATION REPORT RELATED TO THE TERMINATION OF FACILITY OPERATING LICENSE NO. NPF-1 PORTLAND GENERAL ELECTRIC COMPANY <u>TROJAN NUCLEAR PLANT</u> <u>DOCKET NO. 50-344</u>

## 1.0 INTRODUCTION

The Trojan Nuclear Plant (Trojan or the facility) began commercial operation in 1976. In 1993, after 17 years of operation, Portland General Electric Company (PGE or the licensee) notified the U.S. Nuclear Regulatory Commission (NRC) of its decision to permanently cease power operations. In accordance with the requirements of Title 10, <u>U.S. Code of Federal Regulations</u> (10 CFR) 50.82(a)(9) the licensee submitted the "Trojan Nuclear Plant License Termination Plan" (LTP) for its facility. By letter dated August 5, 1999, and supplemented by letters dated November 23, 1999, December 27, 1999, May 4, 2000, October 19, 2000, and November 22, 2000, PGE submitted a request to amend Facility Operating License No. NPF-1 for Trojan to incorporate its LTP. Under the provisions of 10 CFR 50.82(a)(10), the NRC approved the LTP by license amendment dated February 12, 2001.

The licensee conducted decommissioning activities at Trojan in accordance with the approved LTP from February 2001 to December 2004. In accordance with the approved LTP, the licensee conducted final status surveys (FSSs) to demonstrate that the facility and site meet the criteria for unrestricted release as presented in 10 CFR 20.1402. Details of the FSS results were submitted to the NRC in 10 separate FSS reports (FSSRs). Additional information regarding each of these reports is provided in Section 2.2 of this safety evaluation report (SER).

In accordance with 10 CFR 50.82(a)(9), the licensee submitted an application for termination of its Facility Operating License on December 20, 2004 (ADAMS No. ML0500300540). This SER documents the NRC's approval PGE's application for license termination.

## 2.0 EVALUATION

In accordance with 10 CFR 50.82(a)(11), the Commission shall terminate the license if it determines that; (I) The remaining dismantlement has been performed in accordance with the approved license termination plan, and (ii) The final radiation survey and associated documentation, including an assessment of dose contributions associated with parts released for use before approval of the license termination plan, demonstrate that the facility and site have met the criteria for decommissioning in 10 CFR Part 20, Subpart E. The following is the staff's evaluation of this information.

## 2.1 Remaining Dismantlement Activities

In accordance with the requirement of 10 CFR 50.82(a)(9)(ii)(B), Section 2.3 of the LTP provided a discussion of the remaining dismantlement activities necessary for license termination as of early 1999. Section 2.3.1 of the LTP lists the remaining structures, systems and components to be dismantled or decontaminated after approval of the LTP, and Section

2.3.2 provides a corresponding description of the remediation considerations for each of the remaining structures, systems and components.

In the LTP the licensee stated it planned to remediate the site, including structures, systems, and components that remain on site to the criteria specified in 10 CFR Part 20, for unrestricted use. To meet these criteria, the licensee planned to use typical remediation methods, which included chemical decontamination, wiping, washing, vacuuming, scabbling, spalling, and abrasive blasting. For radiologically contaminated systems and components, the licensee planned to either: (1) remove them and send them to an offsite processing facility, or to a low-level radioactive waste facility, for disposal; or (2) decontaminate them onsite and ensure that any residual radioactivity remaining meets the release criteria for unrestricted use.

The staff has reviewed the licensee's FSSRs for Trojan and determined that the licensee has remediated the remaining structures, systems, and components consistent with Section 2.3 of the LTP. Therefore, the staff concludes that the dismantlement and decontamination activities have been completed in accordance with the approved LTP.

#### 2.3 Final Site Survey

The FSS is the radiation survey performed after an area has been fully characterized, remediation has been completed, and the licensee believes that the area is ready to be released for unrestricted use. The purpose of the FSS is to demonstrate that the area meets the radiological criteria for license termination.

Details of the FSS results were submitted to the NRC in the following 10 separate FSSRs:

- Final Survey Report for Trojan ISFSI Site, (ML050810358)
- Final Survey Report for Containment Building Interior, (ML033160349, ML0408401690)
- Final Survey Report for Main Steam Support Structure, Electrical Penetration Area, and Steam Generator Blowdown Building, (ML0410400170, ML0429405730)
- Final Survey Report for Turbine Building and Control Building Interiors, (ML0429500880, ML0429500990, ML0429501060)
- Final Survey Report for Embedded Piping, (ML0432302300)
- Final Survey Report for Remaining Plant Secondary Systems, (ML0434302060)
- Final Survey Report for Auxiliary Building Interior, (ML043580425, ML0435804260, ML0435804320)
- Final Survey Report for Fuel Building Interior, (ML0436200150, ML0436200350, ML043620046)
- Final Survey Report for Spent Fuel Pool Impacted Areas, (ML0435701110)
- Final Survey Report for Support Facilities and Site Grounds, (ML0500300550).

The NRC conducted a number of performance-based in-process inspections of the licensee's FSS program during the decommissioning process. The purpose of the inspections was to verify that the FSS was being conducted in accordance with the commitments made by the licensee in the LTP, and to evaluate the quality of the FSS by reviewing the FSS procedures, methodology, equipment, surveyor training and qualifications, document quality control, and survey data supporting the FSSRs. In addition, the NRC conducted a number of independent confirmatory surveys to verify the FSS results obtained and reported by the licensee. Confirmatory surveys consisted of surface scans for beta and gamma radiation, direct

measurements for total beta activity, and collection of smear samples for determining removable radioactivity levels.

The staff's review and acceptance of the above referenced FSSRs is documented in correspondence with the licensee, and summarized below for completeness. .3.1 Final Survey Report for Trojan ISFSI Site

PGE submitted the FSSR for the Trojan ISFSI Site in October 1996. The staff accepted the FSSR and approved the release of the area for use as an ISFSI in November 1996 (ML050800534). The staff concluded that the FSSR for the limited area of the ISFSI complies with the requirements of 10 CFR 50.82. The staff's conclusion was based on its review of PGE's FSSR and the results of a confirmatory survey. Documentation of the confirmatory survey is presented in NRC Inspection Report 72-17/96-01 (ML050800524) and the Oak Ridge Institute for Science and Education (ORISE) Trip Report dated September 27, 1996 (ML050800530).

#### 2.3.2 Final Survey Report for Containment Building Interior

PGE submitted the FSSR for the Containment Building Interior on October 31, 2003, with revisions on March 11, 2004. The staff accepted the FSSR on September 22, 2004 (ML042680014), and concluded that (1) the FSS was conducted in accordance with the LTP; (2) the FSSR contains the information identified in NUREG-1757, "Consolidated NMSS Decommissioning Guidance," Section 4.5; and (3) the FSS results demonstrate that the Containment Building Interior meets the radiological criteria for unrestricted release identified in the LTP. The staff's conclusion is based on its review of PGE's FSSR and survey release records, and the results of confirmatory surveys performed by ORISE.

The Containment Building Interior was divided into 76 survey units. Acceptance of the FSSR for the Containment Building Interior is supported by the staff's review of FSS release records for 23 Class 1 survey units which verified the adequacy of the FSS design, the training and qualifications of FSS technicians, the calibration of FSS survey instruments, and the adequacy of FSS supporting documents. Staff conclusions are also supported by confirmatory surveys in 28 survey units performed during inspections conducted in May 2001 and August 2002. Documentation of these surveys is presented in NRC Inspection Reports IR 50-344/01-02 and IR 50-344/02-03 (ML012470350 and ML0234502440).

2.3.3 Final Survey Report for Main Steam Support Structure, Electrical Penetration Area, and Steam Generator Blowdown Building

PGE submitted the FSSR for the Main Steam Support Structure, Electrical Penetration Area and Steam Generator Blowdown Building on March 30, 2004. The staff accepted the FSSR on September 23, 2004 (ML042670538), and concluded that: (1) the FSS was conducted in accordance with the LTP; (2) the FSSR contains the information identified in NUREG-1757, "Consolidated NMSS Decommissioning Guidance," Section 4.5; and (3) the FSS results demonstrate that the Main Steam Support Structure, Electrical Penetration Area and Steam Generator Blowdown Building meet the radiological criteria for unrestricted release identified in the LTP. The staff's conclusion is based on its review of PGE's FSSR and survey release records, and the results of a confirmatory surveys conducted by ORISE. The Main Steam Support Structure, Electrical Penetration Area, and Steam Generator Blowdown Building were divided into 20 survey units. Acceptance of the FSSR for the Main Steam Support Structure, Electrical Penetration Area, and Steam Generator Blowdown Building is supported by the staff's review of FSS release records for 13 survey units (11 Class 1 survey units and 2 Class 2 survey units) which verified the adequacy of the FSS design, the training and qualifications of FSS technicians, the calibration of FSS survey instruments, and the adequacy of FSS supporting documents. Staff conclusions are also supported by confirmatory surveys in 12 survey units performed during an inspection conducted in December 2003. Documentation of these surveys is presented in NRC Inspection Report IR 50-344/03-004 (ML04630566).

## 2.3.4 Final Survey Report for Turbine Building and Control Building Interiors

PGE submitted the FSSR for the Turbine Building and Control Building Interiors on October 12, 2004. The staff accepted the FSSR on October 28, 2004 (ML043060002), and concluded that: (1) the FSS was conducted in accordance with the LTP; (2) the FSSR contains the information identified in NUREG-1757, "Consolidated NMSS Decommissioning Guidance," Section 4.5; and (3) the FSS results demonstrate that the Turbine Building and Control Building Interiors meet the radiological criteria for unrestricted release identified in the LTP. The staff's conclusion is based on its review of PGE's FSSR and survey release records, and the results of confirmatory surveys conducted by ORISE.

The Turbine Building Interior was divided into 32 survey units and Control Building Interior was divided into 16 survey units. Acceptance of the FSSR for the Turbine Building Interior is supported by the staff's review of FSS release records for all Turbine Building and Control Building Interior survey units which verified the adequacy of the FSS design, the training and qualifications of FSS technicians, the calibration of FSS survey instruments, and the adequacy of FSS supporting documents. Staff conclusions are also supported by confirmatory surveys in six Turbine Building survey units performed during inspections conducted in October 2002 and June 2004. Documentation of these surveys is presented in NRC Inspection Reports IR 50-344/02-04 and IR 50-344/04-02 (ML030380014 and ML042800601).

## 2.3.5 Final Survey Report for Embedded Piping

PGE submitted the FSSR for the Embedded Piping on November 10, 2004. The staff accepted the FSSR on December 2, 2004 (ML043370086), and concluded that: (1) the FSS was conducted in accordance with the LTP; (2) the FSSR contains the information identified in NUREG-1757, "Consolidated NMSS Decommissioning Guidance," Section 4.5; and (3) the FSS results demonstrate that the Embedded Piping meet the radiological criteria for unrestricted release identified in the LTP. The staff's conclusion is based on its review of PGE's FSSR and survey release records, and the results of confirmatory surveys conducted by ORISE.

The Embedded Piping was divided into 42 survey units. Acceptance of the FSSR for embedded piping is supported by the staff's review of FSS release records for 38 survey units (all 33 Class 1 survey units of the Auxiliary and Fuel Building and all nine Turbine Building Embedded Piping survey units) during the September 2004, inspection (ML043010649), which verified the adequacy of the FSS design, the training and qualifications of FSS technicians, the calibration of FSS survey instruments, and the adequacy of FSS supporting documents. Staff conclusions are also supported by confirmatory surveys in 11 embedded piping survey units performed during inspections conducted in April 2003, December 2003, and June 2004.

Documentation of these surveys is presented in NRC Inspection Reports IR 050-344/03-02, 050-344/03-04, and IR 050-00344/04-002 (ML031611050, ML040630566, and ML042800601).

#### 2.3.6 Final Survey Report for Remaining Plant Secondary Systems

PGE submitted the FSSR for the Remaining Plant Secondary Systems on November 10, 2004. The staff accepted the FSSR on December 2, 2004 (ML043370086), and concluded that: (1) the FSS was conducted in accordance with the LTP; (2) the FSSR contains the information identified in NUREG-1757, "Consolidated NMSS Decommissioning Guidance," Section 4.5; and (3) the FSS results demonstrate that the Remaining Plant Secondary Systems meet the radiological criteria for unrestricted release identified in the LTP. The staff's conclusion is based on its review of PGE's FSSR and survey release records, and the results of confirmatory surveys conducted by ORISE.

The Remaining Plant Secondary Systems were divided into 10 survey units. Acceptance of the FSSR for Remaining Plant Secondary Systems is supported by the staff's review of FSS release records for all 10 survey units. In addition, results from confirmatory surveys performed on accessible portions of three survey units, including the Main Turbine, all 3 hoods (A, B, C), the Main Condenser 'B' (hotwell), and both Moisture Separators in the Miscellaneous Systems, support the PGE conclusions that the survey units meet the regulatory requirements for unrestricted use. Documentation of these surveys is presented in NRC Inspection Report IR 050-344/04-03 (ML050450511).

## 2.3.7 Final Survey Report for Auxiliary Building Interior

PGE submitted the FSSR for the Auxiliary Building Interior on December 3, 2004. The staff accepted the FSSR on February 23, 2005 (ML050540035), and concluded that: (1) the FSS was conducted in accordance with the LTP; (2) the FSSR contains the information identified in NUREG-1757, "Consolidated NMSS Decommissioning Guidance," Section 4.5; and (3) the FSS results demonstrate that the Auxiliary Building Interior meets the radiological criteria for unrestricted release identified in the LTP. The staff's conclusion is based on its review of PGE's FSSR and survey release records, and the results of confirmatory surveys conducted by ORISE.

The Auxiliary Building Interior was divided into 144 survey units. Acceptance of the FSSR for the Auxiliary Building Interior is supported by the staff's review of FSS release records for 38 survey units (26 Class 1 survey units and 12 Class 2 survey units) which verified the adequacy of the FSS design, the training and qualifications of FSS technicians, the calibration of FSS survey instruments, and the adequacy of FSS supporting documents. Staff conclusions are also supported by confirmatory surveys in 29 Auxiliary Building Interior survey units during inspections conducted in October 2002, June 2004, and September 2004. Documentation of these surveys is presented in NRC Inspection Reports IR 050-344/02-04, IR 050-00344/04-002, and IR 050-344/04-03 (ML030380014, ML042800601, and ML050450511).

#### 2.3.8 Final Survey Report for Fuel Building Interior

PGE submitted the FSSR for the Fuel Building Interior on December 15, 2004. The staff accepted the FSSR on February 23, 2005 (ML050540035), and concluded that: (1) the FSS was conducted in accordance with the LTP; (2) the FSSR contains the information identified in NUREG-1757, "Consolidated NMSS Decommissioning Guidance," Section 4.5; and (3) the FSS results demonstrate that the Fuel Building Interior meets the radiological criteria for unrestricted release identified in the LTP. The staff's conclusion is based on its review of PGE's FSSR and survey release records, and the results of confirmatory surveys conducted by ORISE.

The Fuel Building Interior was divided into 82 survey units. Acceptance of the FSSR for the Fuel Building Interior is supported by the staff's review of FSS release records for 25 survey units (12 Class 1, 10 Class 2, and 3 Class 3 survey units) which verified the adequacy of the FSS design, the training and qualifications of FSS technicians, the calibration of FSS survey instruments, and the adequacy of FSS supporting documents. Staff conclusions are also supported by confirmatory surveys in 12 Fuel Building Interior survey units during inspections conducted in October 2002, and September 2004. Documentation of these surveys is presented in NRC Inspection Reports IR 050-344/02-04 and IR 050-344/04-03 (ML030380014 and ML050450511).

#### 2.3.9 Final Survey Report for Spent Fuel Pool Impacted Areas

PGE submitted the FSSR for the Spent Fuel Pool Impacted Areas on December 16, 2004. The staff accepted the FSSR on February 23, 2005 (ML050540035), and concluded that: (1) the FSS was conducted in accordance with the LTP; (2) the FSSR contains the information identified in NUREG-1757, "Consolidated NMSS Decommissioning Guidance," Section 4.5; and (3) the FSS results demonstrate that the Spent Fuel Pool Impacted Areas meet the radiological criteria for unrestricted release identified in the LTP. The staff's conclusion is based on its review of PGE's FSSR and survey release records, and the results of confirmatory surveys conducted by ORISE.

The Spent Fuel Pool Impacted Areas were divided into 15 survey units. Acceptance of the FSSR for the Spent Fuel Pool Impacted Areas is supported by the staff's review of FSS release records for all 15 survey units which verified the adequacy of the FSS design, the training and qualifications of FSS technicians, the calibration of FSS survey instruments, and the adequacy of FSS supporting documents. Staff conclusions are also supported by confirmatory surveys in two Spent Fuel Pool Impacted Areas survey units during an inspection conducted in September 2004. Documentation of these surveys is presented in NRC Inspection Report IR 050-344/04-03 (ML050450511).

#### 2.3.10 Final Survey Report for Support Facilities and Site Grounds

PGE submitted the FSSR for the Support Facilities and Site Grounds on December 20, 2004. The staff accepted the FSSR on February 23, 2005 (ML050540035), and concluded that: (1) the FSS was conducted in accordance with the LTP; (2) the FSSR contains the information identified in NUREG-1757, "Consolidated NMSS Decommissioning Guidance," Section 4.5; and (3) the FSS results demonstrate that the Support Facilities and Site Grounds meet the radiological criteria for unrestricted release identified in the LTP. The staff's conclusion is based on its review of PGE's FSSR and survey release records, and the results of confirmatory surveys conducted by ORISE.

The Support Facilities and Site Grounds were divided into 74 survey units. Acceptance of the FSSR for the Support Facilities and Site Grounds is supported by the staff's review of FSS release records for 20 survey units (8 Class 1, 6 Class 2, and 6 Class 3 survey units) which verified the adequacy of the FSS design, the training and qualifications of FSS technicians, the calibration of FSS survey instruments, and the adequacy of FSS supporting documents. Staff conclusions are also supported by confirmatory surveys in 12 Support Facilities and Site Grounds survey units during an inspection conducted in October 2002. Documentation of these surveys is presented in NRC Inspection Report IR 50-344/02-04 (ML030380014).

#### 2.4 Other Documents Required for License Termination

In addition to the license termination requirements of 10 CFR Part 50, Parts 30, 40, and 70 also have requirements for forwarding of specific records to NRC prior to license termination. These requirements include:

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)	<ul> <li>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:</li> <li>(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</li> <li>(2) Records required by 20.2103(b)(4).</li> </ul>
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)	<ul> <li>Prior to license termination, licensees shall forward the following records to the appropriate NRC Regional Office:</li> <li>(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</li> <li>(2) Records required by 20.2103(b)(4); and</li> <li>(3) Records required by 70.25(g).</li> </ul>

#### **Record Forwarding Requirements**

PGE addressed each of these requirements in a letter to NRC dated December 20, 2004, (ML0503204820) as described below.

PGE addressed the requirements of 10 CFR 30.51(d)(1), 10 CFR 40.61(d)(1), and 10 CFR 70.51(a)(1) by stating, "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".

PGE addressed the requirements of 10 CFR 30.51(d)(2), 10 CFR 40.61(d)(2), and 10 CFR 70.51(a)(2) collectively because they deal with the submittal of records required by 10 CFR 20.2103(b)(4). 10 CFR 20.2103(b)(4) addresses records associated with the release of radioactive effluents to the environment. From 1976 to 1993, PGE submitted semiannual Radioactive Effluent Release Reports to the NRC. From 1993 to present, PGE submitted the Radioactive Effluent Release Reports on an annual basis. PGE submitted the "Trojan Nuclear Plant Annual Radioactive Effluent Release Report to 2004" to NRC February 25, 2005 (ML050610678). With this submittal, PGE contends that it has met the requirements of 10 CFR 30.51(d)(2), 10 CFR 40.61(d)(2), and 10 CFR 70.51(a)(2).

Due to the similarity of the requirements, PGE also addressed the requirements of 10 CFR 30.51(f), 10 CFR 40.61(f), and 10 CFR 70.51(a)(3) collectively. These regulations require the licensee to forward information important to 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. PGE states that it has met these requirements through the submittal of: (1) Trojan Nuclear Plant Decommissioning Plan and License Termination Plan (PGE-1078); (2) Trojan Nuclear Plant Site Characterization Report; (3) Trojan Nuclear Plant Final Survey Reports; and (4) Trojan Nuclear Plant Groundwater Report.

In a letter dated February 1, 2005 (ML0503303020), NRC agreed that PGE has met the requirements of 10 CFR Parts 30, 40, and 70 for forwarding of specific records to NRC prior to license termination.

## 3.0 STATE CONSULTATION

This SER was prepared by the NRC staff without input from the State of Oregon. However, the State is on distribution for all correspondence between NRC and PGE and thus has been informed of NRC's intention to terminate the Trojan license. In addition, on January 28, 2005, NRC staff provided a briefing on the Trojan decommissioning project to the Oregon Energy Facility Siting Council at a scheduled public meeting. NRC staff provided an overview of the NRC decommissioning process and discussed NRC's review of TNP's FSSs.

## 4.0 ENVIRONMENTAL CONSIDERATIONS

Pursuant to 10 CFR 51.21, 51.32, and 51.35, an environmental assessment (EA) and finding of no significant impact (FONSI) was published in the *Federal Register* on February 12, 2001 (66 FR 9885) for approval of the LTP. Accordingly, no EA or FONSI will be prepared for termination of the Trojan license.

#### 5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (I) The remaining dismantlement has been performed in accordance with the approved LTP, (ii) The FSS and associated documentation, including an assessment of dose contributions associated with parts released for use before approval of the LTP, demonstrate that the facility and site have met the criteria for decommissioning in 10 CFR part 20, subpart E, and (iii) PGE has met the Parts 30, 40, and 70 requirements for forwarding of specific records to NRC prior to license termination.

Principal Contributors: J. Buckley, NMSS/DWMEP/DCD B. Watson, NMSS/DWMEP/DCD

Date: May 23, 2005

May 23, 2005

- MEMORANDUM TO: Michael T. Lesar, Chief Rules and Directives Branch Division of Administrative Services Office of Administration
- FROM: Daniel M. Gillen, Deputy Director /RA/ Decommissioning Directorate Division of Waste Management and Environmental Protection Office of Nuclear Material Safety and Safeguards
- SUBJECT: NOTICE OF TERMINATION OF TROJAN NUCLEAR PLANT FACILITY OPERATING LICENSE NO. NPF-1

Attached please find one signed original of the subject Federal Register notice for your

transmittal to the Office of the Federal Register for publication. Also, attached are five copies of

the signed notice and a 3.5" diskette with the notice in WordPerfect.

Docket Nos.: 50-344, 72-017 License Nos.: NPF-1, SNM-2509

Attachments:

- 1. Federal Register Notice
- 2. Diskette

CONTACT: John Buckley, NMSS/DWMEP 301-415-6607

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	Rules and Directives Branch
	Division of Administrative Services
	Office of Administration

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CONTACT: John Buckley, NMSS/DWMEP 301-415-6607

cc: Trojan distribution list

DISTRIBUTION:	PDR	DWM r/f	DCB r/f	JKennedy
BEvans, R IV	BSpitzberg, F	R IV		2

	_050	680345			*See previous concurrence						
OFC	DCD		DCD		DCD	SFPO		OGC		DCD	
NAME	JBuckley*		TMixon*		CCraig*	CRegan*		STreby*		DGillen	
DATE	3/7/05		3/07/05 3/1		3/10 /05	3/14 /05		4/29/05		5/23/05	

OFFICIAL RECORD COPY

## NUCLEAR REGULATORY COMMISSION PORTLAND GENERAL ELECTRIC COMPANY DOCKET NO. 50-344, LICENSE NO. NPF-1 DOCKET NO. 72-017, LICENSE NO. SNM-2509 NOTICE OF TERMINATION OF TROJAN NUCLEAR PLANT FACILITY OPERATING LICENSE NO. NPF-1

**ACTION:** Notice of Termination of the Portland General Electric Company (PGE) Trojan Nuclear Plant (TNP) Facility Operating (Possession Only) License, No. NPF-1.

**SUMMARY:** The Nuclear Regulatory Commission (NRC) is noticing the termination of the TNP Facility Operating (Possession Only) License, No. NPF-1, (NRC Docket No. 50-344), located near Portland, Oregon.

**BACKGROUND:** The TNP facility is located in Columbia County, Oregon, approximately 42 miles north of Portland, Oregon. TNP began commercial operation in May 1976. The reactor output was rated at 3411 MWt with an approximate net electrical output rating of 1130 MWe. The nuclear steam supply system was a four-loop pressurized water reactor designed by Westinghouse Electric Corporation. TNP was shut down for the last time on November 9, 1992.

In August 1999, PGE submitted its License Termination Plan (LTP) for the TNP facility. Under the provisions of 10 CFR 50.82(a)(10), the NRC approved the LTP by license amendment dated February 12, 2001. PGE conducted decommissioning activities at TNP in accordance with the approved LTP from February 2001 to December 2004. In accordance with the approved LTP, the licensee conducted final status surveys (FSSs) to demonstrate that the facility and site meet the criteria for unrestricted release as presented in 10 CFR 20.1402. Details of the FSS results were submitted to the NRC in 10 separate FSS reports (FSSRs).

PGE submitted an application for termination of the TNP Facility Operating (Possession Only) License, No. NPF-1, on December 20, 2004. The application states that PGE has completed remaining radiological decommissioning and FSSs of the TNP facility and site in accordance with the NRC-approved LTP, and the FSSs demonstrate that the facility and site meet the criteria for decommissioning and release of the site for unrestricted use that are stipulated in 10 CFR Part 20, Subpart E.

The NRC conducted a number of performance-based in-process inspections of the licensee's FSS program during the decommissioning process. The purpose of the inspections was to verify that the FSS was being conducted in accordance with of the commitments made by the licensee in the LTP, and to evaluate the quality of the FSS by reviewing the FSS procedures, methodology, equipment, surveyor training and qualifications, document quality control, and survey data supporting the FSSRs. In addition, the NRC conducted a number of independent confirmatory surveys to verify the FSS results obtained and reported by the licensee. Confirmatory surveys consisted of surface scans for beta and gamma radiation, direct measurements for total beta activity, and collection of smear samples for determining removable radioactivity levels.

The NRC staff reviewed the FSS Report and concludes that: (I) Dismantlement and decontamination activities were performed in accordance with the approved LTP; and (ii) The FSS and associated documentation, including an assessment of dose contributions associated with parts released for use before approval of the LTP, demonstrate that the facility and site have met the criteria for decommissioning in 10 CFR Part 20, Subpart E. Therefore, NRC is terminating TNP Facility Operating License No. NPF-1.

**FOR FURTHER INFORMATION:** See the application dated December 20, 2004, and the Safety Evaluation Report, available for public inspection at the Commission's Public

-2-

Document Room (PDR), located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agency-wide Documents Access and Management System's (ADAMS) Public Electronic Reading Room on the Internet at the NRC Web site,

*http://www.nrc.gov/reading-rm/adams.html* (ADAMS Accession Nos. ML050030054, and ML050680345). Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR Reference staff by telephone at 1-800-397-4209, 301-415-4737 or by e-mail to *pdr@nrc.gov*.

Dated at Rockville, Maryland this 23rd day of May, 2005.

For The Nuclear Regulatory Commission

/RA/

Andrew Persinko, Acting Deputy Director Decommissioning Directorate Division of Waste Management and Environmental Protection Office of Nuclear Material Safety and Safeguards Trojan Nuclear Power Service List

CC:

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Chairman of the Board of County Commissioners Columbia County St. Helens, OR 97501

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