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Trojan Nuclear Plant
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VPN-057-2004

Trojan Nuclear Plant
License NPF-1
Docket 50-344

ATTN: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

**Trojan Nuclear Plant Final Survey Report
for the Turbine Building and Control Building Interiors**

The enclosure to this letter provides Portland General Electric Company's Final Survey Report for the Trojan Nuclear Plant Turbine Building and Control Building Interiors. The report is presented in two volumes. The first volume is the main report documenting the results and conclusions of the final survey of the Turbine Building and Control Building Interiors. The second volume is a supplement to the main report that provides scan measurement data and survey maps documenting where scan surveys were performed in each survey unit.

Data collection for the final survey of these areas began in July 2002 and was completed in August 2004. The report documents the results and conclusions of the survey, and was prepared in accordance with guidance and requirements contained in the following:

- Portland General Electric Topical Report PGE 1061, *Trojan Nuclear Plant Defueled Safety Analysis Report and License Termination Plan (PGE-1078)*,
- NUREG 1727, *NMSS Decommissioning Standard Review Plan*, Section 14.5 [Superseded by NUREG 1757 in September 2003],
- NUREG 1575, *Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)*, Section 8.6, and
- NUREG 1757, Volume 2, *Consolidated NMSS Decommissioning Guidance – Characterization, Survey, and Determination of Radiological Criteria*, Section 4.5

The attachment to this letter indicates where each of the requirements in the documents listed above is addressed.

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The data collected during final survey demonstrate that each survey unit of the Turbine Building and Control Building Interiors meets the radiological criteria for unrestricted use specified in 10 CFR 20.1402. On that basis, Portland General Electric Company has concluded that each of these areas meets regulatory requirements for release to unrestricted use.

To support Portland General Electric Company's plans to have its Trojan Nuclear Plant license terminated in 2005 per 10 CFR 50.82(a)(11), it is requested that the Nuclear Regulatory Commission review this data package for acceptance of this portion of the site final radiological survey.

Should you have any questions concerning this matter, please contact Mr. Jerry D. Reid of my staff at (503) 556-6474.

Sincerely,



Stephen M. Quennoz
Vice President, Generation

Attachment
Enclosure

c: Director, NRC Region IV/DNMS
J. T. Buckley, NMSS/DWM/DCB (3 Copies)
R. J. Evans, NRC Region IV/DNMS/FCDB
D. Stewart-Smith, ODOE
A. Bless, ODOE

Guidance/Requirement	Source	Where Addressed
... a final survey report will be prepared which summarizes the data and documents the conclusion that the TNP facility and site meet the 10 CFR 20.1402 release criteria and can be released for unrestricted use.	PGE 1061 – Trojan License Termination Plan – Section 4.1.3	Final Survey Report – Section 1.1, Section 5
... and in the final survey report. The final survey report is prepared which summarizes the data and states the conclusions.	PGE 1061 – Trojan License Termination Plan – Section 4.2.5.5	Final Survey Report – Section 1.1, Section 5
The report will provide a summary of the ALARA evaluations.	PGE 1061 – Trojan License Termination Plan – Section 4.7.3	Final Survey Report – Section 4.2.4, Table 4-1
The report will provide a summary of the survey data results.	PGE 1061 – Trojan License Termination Plan – Section 4.7.3	Final Survey Report –Section 3, Table 3-1, Table 3-2
The report will provide a summary of the overall conclusions.	PGE 1061 – Trojan License Termination Plan – Section 4.7.3	Final Survey Report –Section 5, Table 4-1
Information such as the number and type of measurements...will be included in the report.	PGE 1061 – Trojan License Termination Plan – Section 4.7.3	Final Survey Report – Section 2.3.2 & 2.3.3, Table 3-1, Section 4.1.3.3, Appendices B & C
Information such as basic statistical quantities...will be included in the report.	PGE 1061 – Trojan License Termination Plan – Section 4.7.3	Final Survey Report – Appendices B & C
Information such as statistical test results...will be included in the report.	PGE 1061 – Trojan License Termination Plan – Section 4.7.3	Final Survey Report – Appendices B & C
The information should include: An overview of the results of the final status survey.	NUREG 1727 – NMSS Decommissioning Standard Review Plan, Rev 0, Section 14.5	Final Survey Report –Section 3, Table 3-1

Guidance/Requirement	Source	Where Addressed
<p>The information should include: A discussion of any changes that were made in the final status survey from what was proposed in the Decommissioning Plan or other prior submittals.</p>	<p>NUREG 1727 – NMSS Decommissioning Standard Review Plan, Rev 0, Section 14.5</p>	<p>N/A. Survey performed in accordance with PGE 1061 - Trojan License Termination Plan.</p>
<p>The information should include: A description of the method by which the number of samples was determined for each survey unit.</p>	<p>NUREG 1727 – NMSS Decommissioning Standard Review Plan, Rev 0, Section 14.5</p>	<p>Final Survey Report – Section 2.3.2.2, Section 4.1.3.3</p>
<p>The information should include: A summary of the values used to determine the number of samples and a justification for these values.</p>	<p>NUREG 1727 – NMSS Decommissioning Standard Review Plan, Rev 0, Section 14.5</p>	<p>PGE 1061 - Trojan License Termination Plan – Section 4.4.3.1, Appendix 4-2</p>
<p>The information should include: The survey results for each survey unit including: The number of samples taken for each survey unit.</p>	<p>NUREG 1727 – NMSS Decommissioning Standard Review Plan, Rev 0, Section 14.5</p>	<p>Final Survey Report – Appendices B & C</p>
<p>The information should include: The survey results for each survey unit including: A map or drawing of the survey unit showing the reference system and random start systematic sample locations for Class 1 and Class 2 survey units, and random locations shown for Class 3 survey units and reference areas.</p>	<p>NUREG 1727 – NMSS Decommissioning Standard Review Plan, Rev 0, Section 14.5</p>	<p>Final Survey Report – Appendices B & C</p>

Guidance/Requirement	Source	Where Addressed
The information should include: The survey results for each survey unit including: The measured sample concentrations.	NUREG 1727 – NMSS Decommissioning Standard Review Plan, Rev 0, Section 14.5	Final Survey Report – Appendices B & C
The information should include: The survey results for each survey unit including: The statistical evaluation of the measured concentrations.	NUREG 1727 – NMSS Decommissioning Standard Review Plan, Rev 0, Section 14.5	Final Survey Report – Appendices B & C
The information should include: The survey results for each survey unit including: Judgmental and miscellaneous sample data sets reported separately from those samples collected for performing the statistical evaluation.	NUREG 1727 – NMSS Decommissioning Standard Review Plan, Rev 0, Section 14.5	Final Survey Report – Appendices B & C Supplement
The information should include: The survey results for each survey unit including: A discussion of anomalous data including any areas of elevated direct radiation detected during scanning that exceeded the investigation level or measurement locations in excess of the DCGL _w .	NUREG 1727 – NMSS Decommissioning Standard Review Plan, Rev 0, Section 14.5	Final Survey Report – Section 2.4.2, Appendix B

Guidance/Requirement	Source	Where Addressed
<p>The information should include: The survey results for each survey unit including: A statement that a given survey unit satisfied the DCGL_w and the elevated measurement comparison if any sample points exceeded the DCGL_w.</p>	<p>NUREG 1727 – NMSS Decommissioning Standard Review Plan, Rev 0, Section 14.5</p>	<p>Final Survey Report – Section 5, Table 4-1</p>
<p>The information should include: A description of any changes in initial survey unit assumptions relative to the extent of residual radioactivity.</p>	<p>NUREG 1727 – NMSS Decommissioning Standard Review Plan, Rev 0, Section 14.5</p>	<p>Final Survey Report – N/A</p>
<p>The information should include: If a survey unit fails, a description of the investigation conducted to ascertain the reason for the failure and a discussion of the impact that the failure has on the conclusion that the facility is ready for final radiological surveys.</p>	<p>NUREG 1727 – NMSS Decommissioning Standard Review Plan, Rev 0, Section 14.5</p>	<p>N/A</p>
<p>The information should include: If a survey unit fails, a discussion of the impact that the reason for the failure has on other survey unit information.</p>	<p>NUREG 1727 – NMSS Decommissioning Standard Review Plan, Rev 0, Section 14.5</p>	<p>N/A</p>
<p>Documentation of the final status survey should provide a complete and unambiguous record of the radiological status of the survey unit relative to the established DCGLs.</p>	<p>NUREG 1575 MARSSIM – Section 8.6</p>	<p>Final Survey Report – Table 4-1</p>

Guidance/Requirement	Source	Where Addressed
Sufficient data and information should be provided to enable an independent evaluation of the results of the survey including repeating measurements at some future time.	NUREG 1575 MARSSIM – Section 8.6	Final Survey Report – Appendices B & C; Supplement
The document should describe the instrumentation or analytical methods used.	NUREG 1575 MARSSIM – Section 8.6	Final Survey Report – Section 2.2
The document should describe how the data were converted into DCGL units.	NUREG 1575 MARSSIM – Section 8.6	Final Survey Report – Section 2.4.3
The document should describe the process of comparing the results to the DCGLs.	NUREG 1575 MARSSIM – Section 8.6	Final Survey Report – Section 4.2
The document should describe the process of determining that the data quality objectives were met.	NUREG 1575 MARSSIM – Section 8.6	Final Survey Report – Section 4.1
The results of actions taken as a consequence of individual measurements or sample concentrations in excess of the investigation levels should be reported together with any additional data, remediation, or re-surveys performed to demonstrate that issues concerning potential areas of elevated activity were resolved.	NUREG 1575 MARSSIM – Section 8.6	Final Survey Report – Section 2.4.2, Appendix B

Guidance/Requirement	Source	Where Addressed
The results of the data evaluation using statistical methods to determine if release criteria were satisfied should be described.	NUREG 1575 MARSSIM – Section 8.6	Final Survey Report – Section 4.1.3
The information should include: An overview of the results of the FSS.	NUREG 1757 Volume 2 Consolidated NMSS Decommissioning Guidance – Section 4.5	Final Survey Report – Section 3, Table 3-1
The information should include: A summary of the DCGLs for the facility (if DCGLs are used).	NUREG 1757 Volume 2 Consolidated NMSS Decommissioning Guidance – Section 4.5	Final Survey Report – Section 1.3.2,. (Appendices B & C also list the DCGL for each survey unit.)
The information should include: A discussion of any changes that were made in the FSS from what was proposed in the DP or other prior submittals.	NUREG 1757 Volume 2 Consolidated NMSS Decommissioning Guidance – Section 4.5	N/A. Survey performed in accordance with PGE 1061 - Trojan License Termination Plan.
The information should include: A description of the method by which the number of samples was determined for each survey unit.	NUREG 1757 Volume 2 Consolidated NMSS Decommissioning Guidance – Section 4.5	Final Survey Report – Section 2.3.2.2, Section 4.1.3.3
The information should include: A summary of the values used to determine the number of samples and a justification for these values.	NUREG 1757 Volume 2 Consolidated NMSS Decommissioning Guidance – Section 4.5	PGE 1061 – Trojan License Termination Plan – Section 4.4.3.1, Appendix 4-2
The information should include: The survey results for each survey unit including the following: The number of samples taken for each survey unit.	NUREG 1757 Volume 2 Consolidated NMSS Decommissioning Guidance – Section 4.5	Final Survey Report – Appendices B & C

Guidance/Requirement	Source	Where Addressed
<p>The information should include: The survey results for each survey unit including the following: a description of the survey unit, including (a) a map or drawing of the survey unit showing the reference system and random start systematic sample locations for Class 1 and Class 2 survey units, and random locations shown for Class 3 survey units and reference areas, (b) discussion of remedial actions and unique features, and (c) areas scanned for Class 2 and 3 survey units.</p>	<p>NUREG 1757 Volume 2 Consolidated NMSS Decommissioning Guidance – Section 4.5</p>	<p>Final Survey Report – Section 3.1, 3.2, Appendices B & C; Supplement</p>
<p>The information should include: The survey results for each survey unit including the following: the measured sample concentrations, in units that are comparable to the DCGLs.</p>	<p>NUREG 1757 Volume 2 Consolidated NMSS Decommissioning Guidance – Section 4.5</p>	<p>Final Survey Report – Appendices B & C</p>
<p>The information should include: The survey results for each survey unit including the following: the statistical evaluation of the measured concentrations.</p>	<p>NUREG 1757 Volume 2 Consolidated NMSS Decommissioning Guidance – Section 4.5</p>	<p>Final Survey Report – Appendices B & C</p>
<p>The information should include: The survey results for each survey unit including the following: judgmental and miscellaneous sample data sets reported separately from those samples collected for performing the statistical evaluation.</p>	<p>NUREG 1757 Volume 2 Consolidated NMSS Decommissioning Guidance – Section 4.5</p>	<p>Final Survey Report – Appendices B & C; Supplement</p>

Guidance/Requirement	Source	Where Addressed
<p>The information should include: The survey results for each survey unit including the following: a discussion of anomalous data including any areas of elevated direct radiation detected during scanning that exceeded the investigation level or any measurement locations in excess of DCGL_w.</p>	<p>NUREG 1757 Volume 2 Consolidated NMSS Decommissioning Guidance – Section 4.5</p>	<p>Final Survey Report – Section 2.4.2, Appendix B</p>
<p>The information should include: The survey results for each survey unit including the following: a statement that a given survey unit satisfied the DCGL_w and the elevated measurement comparison if any sample points exceeded the DCGL_w.</p>	<p>NUREG 1757 Volume 2 Consolidated NMSS Decommissioning Guidance – Section 4.5</p>	<p>Final Survey Report – Table 4-1</p>
<p>The information should include: A description of any changes in initial survey unit assumptions relative to the extent of residual radioactivity (e.g., material not accounted for during site characterization).</p>	<p>NUREG 1757 Volume 2 Consolidated NMSS Decommissioning Guidance – Section 4.5</p>	<p>Final Survey Report – N/A</p>
<p>The information should include: A description of how ALARA practices were employed to achieve final activity levels.</p>	<p>NUREG 1757 Volume 2 Consolidated NMSS Decommissioning Guidance – Section 4.5</p>	<p>Final Survey Report – Section 4.2.4, Table 4-1</p>

Enclosure to VPN-057-2004
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