

April 4, 1996

FOR: The Commissioners
 FROM: James M. Taylor /s/
 Executive Director for Operations
 SUBJECT: ISSUANCE OF DECOMMISSIONING ORDER TO PORTLAND GENERAL ELECTRIC COMPANY APPROVING TROJAN
 NUCLEAR PLANT DECOMMISSIONING PLAN

- PURPOSE:
- BACKGROUND:
- DISCUSSION:
- COORDINATION:

PURPOSE:

To inform the Commission of the staff's intent to issue an order approving the Trojan Nuclear Plant (TNP) Decommissioning Plan.

BACKGROUND:

TNP is located on the west bank of the Columbia River in Columbia County, Oregon, approximately 60 kilometers (42 miles) north of Portland, Oregon. The licensee for TNP is the Portland General Electric (PGE) Company. An operating license for the plant was granted by the NRC on November 21, 1975, and the facility formally began commercial operation on March 20, 1976. The plant operated until November 9, 1992, when a leak in the "B" steam generator was detected and forced a shutdown of the plant. The licensee notified the NRC of the decision to permanently cease power operations on January 27, 1993. The fuel was transferred to the spent fuel pool, and on May 5, 1993, the NRC amended the Trojan Facility Operating License No. NFP-1 to a possession-only license. The licensee submitted the decommissioning plan and a supplement to the environmental report for TNP on January 26, 1995.

The licensee proposes to begin dismantling the facility using the decontamination and dismantlement (DECON) approach to decommissioning. The licensee plans to precede the DECON period with a 5-year transition period. Transition period activities include the removal and disposal of selected large components, licensing and construction of an independent spent fuel storage installation (ISFSI), and transfer of the fuel to the ISFSI.

The licensee completed a large component removal project (LCRP) on November 1, 1995. The LCRP, begun in November 1994, involved removing Trojan's four steam generators and the pressurizer and disposing of these components at the U.S. Ecology radioactive waste disposal facility near Richland, Washington. These activities were performed before the decommissioning plan was approved. Commencement of the LCRP was allowed under previous Commission guidance regarding the decommissioning regulations, as discussed in the Commission's January 14, 1993, staff requirements memorandum and the provisions of [10 CFR 50.59](#). As discussed below, the Commission subsequently returned to the pre-1993 interpretation of the decommissioning regulations.

As required by [10 CFR 50.82\(e\)](#), a Notice of Receipt of the Decommissioning Plan and the Supplement to the Environmental Report, an Opportunity for Public Comment, and an announcement of a public meeting were published in the Federal Register on March 3, 1995 (60 FR 12788). The meeting was held on March 29, 1995, at St. Helens, Oregon, 17 kilometers (12 miles) SSE of the site and was transcribed. The public comments raised at the meeting of March 29, 1995, have been considered by the staff in the review of the Trojan Decommissioning Plan and are addressed in an appendix to the Trojan Decommissioning Safety Evaluation Report prepared by the staff.

On September 6, 1995, the Commission published in the Federal Register (60 FR 46315) a notice interpreting *Citizens Awareness Network, Inc., v. NRC*, 59 F.3d 284 (1st. Cir. 1995). In *CAN v. NRC*, the court directed the NRC to afford CAN and other interested persons an opportunity for a hearing prior to agency approval of the decommissioning plan for the Yankee Rowe Nuclear Plant. The Federal Register notice of September 6, 1995, stated that further decommissioning activities at prematurely shut down power facilities must be conducted under existing NRC regulations as the Commission interpreted and applied them before the 1993 change in interpretation. The notice also stated that the Commission intended to offer an opportunity for a hearing on whether to approve the Trojan Decommissioning Plan. The Commission also solicited comments on the Commission's legal authority to allow or forbid further decommissioning activities at Trojan, specifically the then ongoing LCRP. On October 12, 1995, the Commission issued a Memorandum and Order, CLI-95-13, which stated that the Commission had decided that PGE could not conduct any further "major dismantling" of the Trojan facility until completion of the NRC's decommissioning plan approval process. The Commission, however, decided not to halt PGE's completion of the LCRP, which was within weeks of completion.

On December 18, 1995, the staff completed its review of the licensee's decommissioning plan and issued a safety evaluation and environmental assessment related to the request to authorize facility decommissioning. The staff found the licensee's plan acceptable.

On December 22, 1995, the Commission published a notice in the Federal Register (60 FR 66569) announcing that the Commission was considering issuance of an order approving the Trojan Decommissioning Plan. The notice also offered an opportunity for a hearing on the licensee's decommissioning plan.

The licensee and members of the public were afforded 30 days from the date that the notice appeared in the Federal Register to submit a request for hearing and a petition for leave to intervene. The 30 days passed without a request for a hearing.

On January 22, 1996, the Oregon Department of Energy (ODOE) issued the results of its review of the PGE decommissioning plan for Trojan. The ODOE also offered a 30 day window of opportunity for members of the public to request a hearing under the State of Oregon statutes. On February 13, 1996, the NRC staff and the ODOE held a joint public meeting in the town of Rainier, Oregon, approximately 7.2 kilometers (4.5 miles) NW of TNP. The results of the review by both the NRC staff and the ODOE staff of the licensee's decommissioning plan and the supplement to the environmental report were presented. There were no comments by members of the public. The time period in which a member of the public or the licensee could request a contested case hearing in the State venue on the proposed decommissioning expired without a request. On March 7, 1996, the Energy Facility Siting Council of the ODOE voted to approve the proposed rule that allows the licensee to proceed with decommissioning.

DISCUSSION:

The staff has attached a proposed Order and transmittal letter to the licensee approving the Trojan Decommissioning Plan. The staff's conclusion that the plan is acceptable is based on the results of the staff's review of the licensee's decommissioning plan as documented in the safety evaluation report and environmental assessment of December 18, 1995.

The staff's safety evaluation summarized the proposed methods to be used to decommission the plant. The licensee's cost estimates, funding plan, radiation exposure estimates, decommissioning organization, training programs, occupational health and safety plans, radioactive waste processing and disposal program, and radioactive waste volume estimates were also reviewed.

The licensee has modified the quality assurance program, the radiation protection program, the fire protection program, the safeguards plan, and the emergency preparedness program used during plant operations. The modified programs reflect the permanently shut down condition of the plant. The NRC staff issued by license amendment on March 31, 1995, a permanently defueled technical specification (PDTS) using the improved standard technical specifications, NUREG-1431, "Standard Technical Specifications, Westinghouse Plants," as the basis for the PDTS scope and format.

In the safety evaluation, the staff concluded that there is reasonable assurance that the licensee can complete the decommissioning of TNP based on the availability of a low-level waste site, the programs and controls set forth by the licensee, the licensee's level of expertise, and cost and financial assurance information provided by the licensee and evaluated in this safety evaluation. There is reasonable assurance that the health and safety of the public will not be endangered by the decommissioning of the facility in the proposed manner, and the activities will be conducted in compliance with NRC regulations.

In the environmental assessment of December 18, 1995, the staff discussed the various decommissioning alternatives (SAFSTOR, DECON, ENTOMB, and "no action"), provided an updated description of the site, and evaluated in detail the potential environmental impacts associated with the DECON alternative selected by the licensee. The staff evaluated anticipated worker exposure, exposure to the public, impact of potential accidents on the environment, radioactive waste impacts, and other environmental issues outlined in [10 CFR Part 51](#). The NRC also conducted an informal consultation with the [U.S. Fish and Wildlife Service](#) [EXIT](#) on the potential for adversely affecting any federally protected species on or near TNP. The staff concluded that decommissioning activities would not affect endangered or threatened species or critical habitats in the vicinity of the site.

On the basis of its review of the Supplement to the Applicant's Environmental Report - Post Operating License Stage, the staff has determined that the environmental impacts, both radiological and nonradiological, associated with the decommissioning of TNP, in accordance with the proposed decommissioning plan, are either bounded by the conditions evaluated in the Generic Environmental Impact Statement, NUREG-0586 (NRC 1988), or the Final Environmental Statement related to the Operation of the Trojan Nuclear Plant (AEC 1973). The staff also finds that the proposed decommissioning of TNP complies with [10 CFR Part 50, Appendix I](#), and [10 CFR Part 20](#). In many areas, the decommissioning of the plant will reduce the already small environmental effects associated with the former operation of the plant. There will be an increase in the transportation of low-level radioactive waste during the decommissioning period over what would have been expected during the normal operation of the plant. There will also be a need for more low-level radioactive waste disposal space during decommissioning than would be required during the operation of the plant during the same period of time. However, these effects are temporary in nature and will not have a major impact on either the environment or the affected populations.

Thus, the staff concludes that there are no significant environmental impacts associated with the proposed actions and that the proposed actions will not have a significant effect on the quality of the human environment. Accordingly, pursuant to [10 CFR 51.31](#), the staff has determined not to prepare an environmental impact statement.

On December 22, 1995, the staff published in the Federal Register (60 FR 66568) a Final Finding of No Significant Impact related to the environmental issues of decommissioning for TNP.

The licensee states in Section 1.4 of the Decommissioning Plan that changes to the decommissioning plan can be made without prior NRC approval provided that the proposed changes do not: (1) change the Possession-Only License No. NPF-1; (2) involve an unreviewed safety question as defined in [10 CFR 50.59](#); (3) cause a significant increase in the consequences of a decommissioning event as described in Section 3.4 of the decommissioning plan or that create the potential for a new or different kind of decommissioning event; (4) preclude the release of the site for unrestricted use; (5) adversely impact the availability of funds to complete radiological decommissioning; and (6) result in environmental impacts not previously considered in the Trojan environmental report or its supplement. The staff finds the restrictions on changes to the decommissioning plan acceptable. The staff also concludes that the licensee's decommissioning cost estimate and associated funding plan are acceptable and are in accordance with [10 CFR 50.82](#). The staff plans to issue the attached order approving the TNP Decommissioning Plan within 10 days from the date of this memorandum.

COORDINATION:

The Office of the General Counsel has no legal objection to the Order.

James M. Taylor
Executive Director for Operations

CONTACT: Michael T. Masnik
415-1191

Attachments: 1. [Letter to Licensee](#)
2. [Decommissioning Order](#)

ATTACHMENT 1

Mr. Stephen M. Quennoz
Trojan Site Executive
Trojan Nuclear Plant
71760 Columbia River Highway
Rainier, Oregon 97048

SUBJECT: ORDER APPROVING THE DECOMMISSIONING PLAN AND AUTHORIZING DECOMMISSIONING OF THE TROJAN NUCLEAR PLANT

Dear Mr. Quennoz:

The Commission has issued the enclosed Order approving the decommissioning plan and authorizing decommissioning of the Trojan Nuclear Plant. The Order is in response to your application of January 26, 1995, as updated by letter dated November 13, 1995. The Order has been forwarded to the Office of the Federal Register for publication.

As required by 10 CFR 50.82(e), a Notice of Receipt of the Decommissioning Plan and the Supplement to the Environmental Report, an Opportunity for Public Comment, and an announcement of a public meeting were published in the Federal Register on March 8, 1995 (60 FR 12788). Public comments were received at a meeting held on March 29, 1995, in St. Helens, Oregon. On December 18, 1995, the staff found that your decommissioning plan was acceptable and that decommissioning will be performed in accordance with the regulations of 10 CFR 50.82 and will not be inimical to the common defense and security or to the health and safety of the public. The staff documented its review of your decommissioning plan and the supplement to the environmental report in the safety evaluation and environmental assessment attached to its letter of December 18, 1995. Public comments received at the meeting of March 29, 1995, were addressed in the appendix to the safety evaluation of December 18, 1995.

On December 22, 1995, the Commission issued a notice in the Federal Register (60 FR 66569) announcing that the Commission is considering issuance of an order approving the Trojan Decommissioning Plan. The notice also offered the opportunity for a hearing on the licensee's decommissioning plan. The licensee and members of the public were afforded 30 days from the date that the notice appeared in the Federal Register to submit a request for hearing and a petition for leave to intervene. The 30 days passed without a request for a hearing.

Changes to the decommissioning plan shall be made in accordance with Section 1.4 of the decommissioning plan. Changes to the facility shall be made in accordance with 10 CFR 50.59. We also understand that you have committed to updating the Defueled Safety Analysis Report (DSAR) annually.

There is reasonable assurance that the health and safety of the public will not be endangered by the decommissioning of the facility in the proposed manner, and that activities will be conducted in compliance with NRC regulations. Furthermore, the staff concludes that there are no significant environmental impacts associated with the proposed actions and that the proposed actions will not have a significant effect on the quality of the human environment. Accordingly, on December 22, 1995, the staff published in the Federal Register (60 FR 66568) a Final Finding of No Significant Impact related to the environmental issues of decommissioning for the Trojan plant.

The enclosed order is effective upon issuance.

Sincerely,

Michael T. Masnik, Senior Project Manager
Non-Power Reactors and Decommissioning Project Directorate
Division of Reactor Program Management
Office of Nuclear Reactor Regulation

Docket No. 50-344

Enclosure: Order Authorizing Decommissioning

cc: w/enclosure
See next page

ATTACHMENT 2

7590-01

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

In the Matter of)
PORTLAND GENERAL ELECTRIC COMPANY) Docket No. 50-344
Trojan Nuclear Plant)
)

**ORDER APPROVING THE DECOMMISSIONING PLAN AND
AUTHORIZING DECOMMISSIONING OF FACILITY**

I

The Portland General Electric Company (PGE or the licensee) is the holder of Facility Operating License No. NPF-1 issued by the U.S. Nuclear Regulatory Commission (NRC or the Commission) pursuant to 10 CFR Part 50 on November 21, 1975, for the operation of the Trojan Nuclear Plant (TNP or the facility). The facility is located on the west bank of the Columbia River in Columbia County, Oregon. The license was amended to a possession-only license on May 5, 1993, removing the authority of the licensee to operate TNP.

II

The plant operated until November 9, 1992, when a leak in the "B" steam generator was detected and forced a shutdown of the plant. The licensee notified the NRC of the decision to permanently cease power operations on January 27, 1993. The fuel was transferred to the spent fuel pool, and on March 24, 1993, the NRC staff issued a Confirmatory Order to confirm a PGE commitment not to place fuel back into the reactor building without written approval by the NRC. The operating license was amended to a possession-only license on May 5, 1993. TNP is permanently defueled and cannot be operated nor can fuel be placed in the reactor under the terms of the license. The licensee submitted the

decommissioning plan and a supplement to the environmental report for TNP on January 26, 1995.

On March 8, 1995, in accord with 10 CFR 50.82(e), a Notice of Receipt of the Decommissioning Plan and the Supplement to the Environmental Report and an Opportunity for Public Comment were published in the Federal Register (60 FR 12788). Because of public interest in the decommissioning process, the Federal Register notice announced a local public meeting to provide the public an opportunity to comment on the plan. The meeting was held on March 29, 1995, at St. Helens, Oregon, and was transcribed.

By a letter of December 18, 1995, the staff informed the licensee that the decommissioning plan was acceptable. The staff documented its review of the licensee's decommissioning plan and supplement to the environmental report in a safety evaluation report and environmental assessment related to the licensee's request to authorize facility decommissioning. Public comments received at the meeting on March 29, 1995, in St. Helens, Oregon, were addressed in an appendix to the safety evaluation report.

On December 22, 1995, by a notice in the Federal Register (60 FR 66569) the Commission announced that the Commission was considering issuance of an Order approving the Trojan Decommissioning Plan. The notice also offered an opportunity for a hearing on the licensee's decommissioning plan. The licensee and members of the public were afforded 30 days from the date that the notice appeared in the Federal Register to submit a request for hearing and a petition for leave to intervene. No request for a hearing has been filed.

On January 22, 1996, the Oregon Department of Energy (ODOE) issued the results of its review of the PGE decommissioning plan for Trojan. The ODOE also offered a 30 day window of opportunity for members of the public to request a hearing under the State of Oregon statutes. On February 13, 1996, the NRC staff and the ODOE held a joint public meeting near the plant site in the town of Rainier, Oregon. The results of the review by both the NRC staff and the ODOE staff of the licensee's decommissioning plan and the supplement to the environmental report were presented. There were no comments by members of the public. The time period in which a member of the public or the licensee could request a contested case hearing in the State venue on the proposed decommissioning expired without a request. On March 7, 1996, the Energy Facility Siting Council of the ODOE voted to approve the proposed rule that allows the licensee to proceed with decommissioning.

III

The NRC has reviewed the PGE decommissioning plan with respect to the provisions of the Commission's rules and regulations and has found that decommissioning as described in the TNP Decommissioning Plan will be performed in accordance with the regulations of 10 CFR 50.82 and 10 CFR Chapter I and will not be inimical to the common defense and security or to the health and safety of the public.

IV

Pursuant to 10 CFR 51.21, 51.30, and 51.35, the Commission prepared an environmental assessment, which was issued on December 18, 1995. The Commission published on December 22, 1995, in the Federal Register (60 FR 66568) a notice of issuance of the Environmental Assessment and Final Finding of No Significant Impact. On the basis of the environmental assessment, the Commission has determined that the proposed action will not result in any significant environmental impact and that an environmental impact statement need not be prepared.

V

Accordingly, pursuant to Sections 103, 161b, 161i, and 161o, of the Atomic Energy Act of 1954, as amended, 42 U.S.C. §§ 2133, 2201(b), 2201(i), 2201(o), and 10 CFR 50.82, the PGE Decommissioning Plan is approved and decommissioning of TNP is authorized in accordance with the plan.

For further details with respect to this action, see (1) the application for authorization to decommission the facility of January 26, 1995, as supplemented November 13, 1995; (2) the Environmental Assessment by the U.S. Nuclear Regulatory Commission Related to the Request to Authorize Facility Decommissioning, December 1995; and (3) the Safety Evaluation Report by the U.S. Nuclear Regulatory Commission Related to the Request to Authorize Facility Decommissioning, December 1995. These documents are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street NW, Washington, DC 20555, and at the Local Public Document Room for the TNP at the Branford Price Millar Library, Portland State University, Portland, Oregon 97207.

FOR THE NUCLEAR REGULATORY COMMISSION

William T. Russell, Director
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland,
this