

Docket No. 50-397

DEC 20 1983

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Mr. D. W. Mazur
Managing Director
Washington Public Power Supply System
P. O. Box 968
3000 George Washington Way
Richland, Washington 99352

Dear Mr. Mazur:

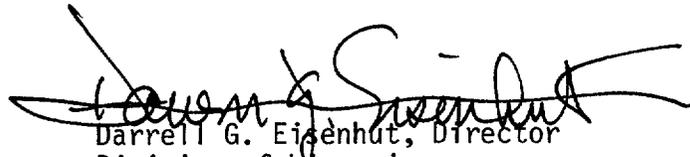
SUBJECT: ISSUANCE OF FACILITY OPERATING LICENSE NPF-21 - WPPSS
NUCLEAR PROJECT NO. 2

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Facility Operating License NPF-21, together with Technical Specifications and Environmental Protection Plan for the WPPSS Nuclear Project No. 2. License No. NPF-21 authorizes operation of the WPPSS Nuclear Project No. 2, at reactor power levels not in excess of 3323 megawatts thermal (100% power). Pending Commission approval, operation is restricted to power levels not to exceed 5 percent of full power (166 megawatts thermal).

Enclosed is a copy of a related notice, the original of which has been forwarded to the Office of the Federal Register for publication and an assessment of the effect of 40 years of license duration with respect to environmental matters.

Two signed copies of Amendment No. 1 to Indemnity Agreement No. B-94 which covers the activities authorized under License No. NPF-21 are also enclosed. Please sign both copies and return one copy to this office.

Sincerely,



Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation

Enclosures:

1. Facility Operating Licensing NPF-21
2. Federal Register Notice
3. Amendment No. 1 to Indemnity Agreement No. B-94
4. Assessment of Environments effects on 40 year license

cc w/enclosures:

See next page

*SEE PREVIOUS CONCURRENCES

DL:LB#2*	DL:LB#2*	DL:LB#2 *	OELD *	DL:AD:L*	D:DL
EHylton:pob	RAuluck	ASchwencer	WPaton	TNovak	DEisenhut
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WNP-2

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Regulatory Programs
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WNP-2 Plant Manager
Washington Public Power Supply System
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Richland, Washington 99352

ASSESSMENT OF THE EFFECT OF LICENSE DURATION ON MATTERS DISCUSSED
IN THE FINAL ENVIRONMENTAL STATEMENT FOR THE WASHINGTON PUBLIC
POWER SUPPLY SYSTEM, NUCLEAR PROJECT NO. 2 (DATED DECEMBER 1981)

INTRODUCTION

The Final Environmental Statement (FES) for the operation of the Washington Public Power Supply System Nuclear Project No. 2 (WNP-2), was published in December 1981. At that time, it was staff practice to issue operating licenses for a period of 40 years from the date of the construction permit. For WNP-2, the CP was issued in March 1973, thus, approximately 30 years of operating life would be available.

By letter dated September 13, 1983, Washington Public Power Supply System (WPPSS) requested that the operating license for WNP-2 have a duration of 40 years from the date of issuance.

DISCUSSION

The staff has reviewed the WNP-2 FES to determine which aspects considered in the FES are affected by the duration of the operating license. In general, the FES assesses various impacts associated with operation of the facility in terms of annual impacts and balances these against the anticipated annual energy production benefits. Thus, the overall assessment and conclusions would not be dependent on specific operating life. There are, however, three areas in which a specific operating life was assumed:

1. Project costs are based on a 30-year levelized cost. The secondary benefits of taxes paid to local political subdivisions were calculated for 30 years.
2. Radiological assessments are based on a 15-year plant midlife.
3. Uranium fuel cycle impacts are based on one initial core load and annual refuelings.

These were assessed to determine whether the use of a 40-year operating period rather than a 30-year operating period would significantly affect our assessment concerning these areas.

EVALUATION

The staff's appraisal of the significance of the use of 40 years of operation, rather than 30 as it affects these three areas, is presented in the following discussions:

1. Projected Costs - The projected cost of the facility which includes the cost of decommissioning are based on a 30-year operating life and are levelized over that period of time. The use of a 40-year operating period rather than a 30-year period would not significantly affect the operating and maintenance cost. If the facility's capital cost were spread over a 40-year period, the overall resulting cost of facility operation would be lowered.

Therefore, any extension in the operating life of the facility would result in savings in system production costs. The production of energy at reduced cost results in an incremental net benefit for the use of a 40-year operating life of the facility.

The FES assumed a 30 year life in estimating total tax benefits to the state & local taxing authorities. A 40 year operating life would result in a larger tax benefits than the \$72 million reported in the FES.

2. Radiological Assessments - The NRC staff calculates dose commitments to the human population residing around nuclear power reactors to assess the impact on people from radioactive material released from these reactors. The annual dose commitment is calculated to be the dose that would be received over a 50-year period following the intake of radioactivity for 1 year under the conditions that would exist 15 years after the plant began operation.

The 15 year period is chosen as representing the midpoint of plant operation and factors into the dose models by allowing for buildup of long life radionuclides in the soil. It affects the estimated doses only for radionuclides ingested by humans that have half-lives greater than a few years. For a plant licensed for 40 years, increasing the buildup period from 15 to 20 years would increase the dose from long term life radionuclides via the ingestion pathways by 33% at most. It would have much less effect on dose from shorter life radionuclides. Table L-5 and L-6 of Appendix L to the FES indicate that the estimated doses via the ingestion pathways are only a fraction of the regulatory design objectives. For example, the ingestion dose to the thyroid is 6.3 mrem/yr compared to an Appendix I design objective of 15 mrem/yr. Thus, for 6.3, an increase of even as much as 33% in these pathways, the dose would remain within the Appendix I guidelines and would still not be significant.

3. Uranium Fuel Cycle Impacts - The impacts of the uranium fuel cycle are based on 30 years of operation of a model LWR. The fuel requirements for the model LWR were assumed to be one initial core load and 29 annual refuelings (approximately 1/3 core). The annual fuel requirement for the model LWR averaged out over a 40-year operating life (1 initial core and 39 refuelings of approximately 1/3 core) would be reduced slightly as compared to the annual fuel requirement averaged for a 30-year operating life.

The net result would be an approximate 1.5% reduction in the annual fuel requirement for the model LWR. This small reduction in fuel requirements would not lead to significant changes in the impacts of the uranium fuel cycle. The staff does not believe that there would be any changes to WNP-2 FES Table 5.5 (S-3) that would be necessary in order to consider 40 years of operation. If anything, the values in Table 5.5 become more conservative when a 40-year period of operation is considered.

CONCLUSION

The staff has reviewed the WNP-2 FES and determined that only three of the areas related to its NEPA analysis discussed in the statement were tied directly to a 30-year operating period. We have concluded, based on the reasons discussed in the sections above, that the impacts associated with a 40-year operating license duration are not significantly different from those associated with a 30-year operating license duration and are not significantly different from those assessed in the WNP-2 FES.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

Docket No. 50-397

AMENDMENT TO INDEMNITY AGREEMENT NO. B-94
AMENDMENT NO. 1

Effective December 20, 1983, Indemnity Agreement No. B-94, between Washington Public Power Supply System and the Nuclear Regulatory Commission, dated August 25, 1982, is hereby amended as follows:

Item 2a. of the Attachment to the indemnity agreement is deleted in its entirety and the following substituted therefor:

Item 2 - Amount of financial protection

a. \$1,000,000 (From 12:01 a.m., August 25, 1982 to 12 midnight December 19, 1983 inclusive)

\$160,000,000* (From 12:01 a.m., Dec. 20, 1983)

Item 3 of the Attachment to the indemnity agreement is deleted in its entirety and the following substituted therefor:

Item 3 - License number or numbers

SNM-1890 (From 12:01 a.m., August 25, 1982, to 12 midnight December 19, 1983 inclusive)

NPF-21 (From 12:01 a.m., December 20, 1983)

*and, as of August 1, 1977, the amount available as secondary financial protection.

Item 4 of the Attachment to the indemnity agreement is deleted in its entirety and the following substituted therefor:

Item 4 - Location

All of the premises including the land and all buildings and structures of Washington Public Power Supply System's Project No. 2 including but not limited to the reactors known as WNP-1, WNP-2 and WNP-4 including the H. J. Ashe substation and the Benton switching station shown as being within the heavy black lines on the drawing designated as "NELIA Site Description" dated November 1, 1983 a copy of which is attached hereto and made a part hereof. The site consists of approximately 2,061 acres and is located on the U.S. Department of Energy's Hanford site in the southeastern part of the State of Washington. The site is approximately twelve (12) miles north of Richland, Washington and one hundred sixty (160) miles east-southeast of Seattle, Washington.

Item 5 of the Attachment to the indemnity agreement is amended by the following:

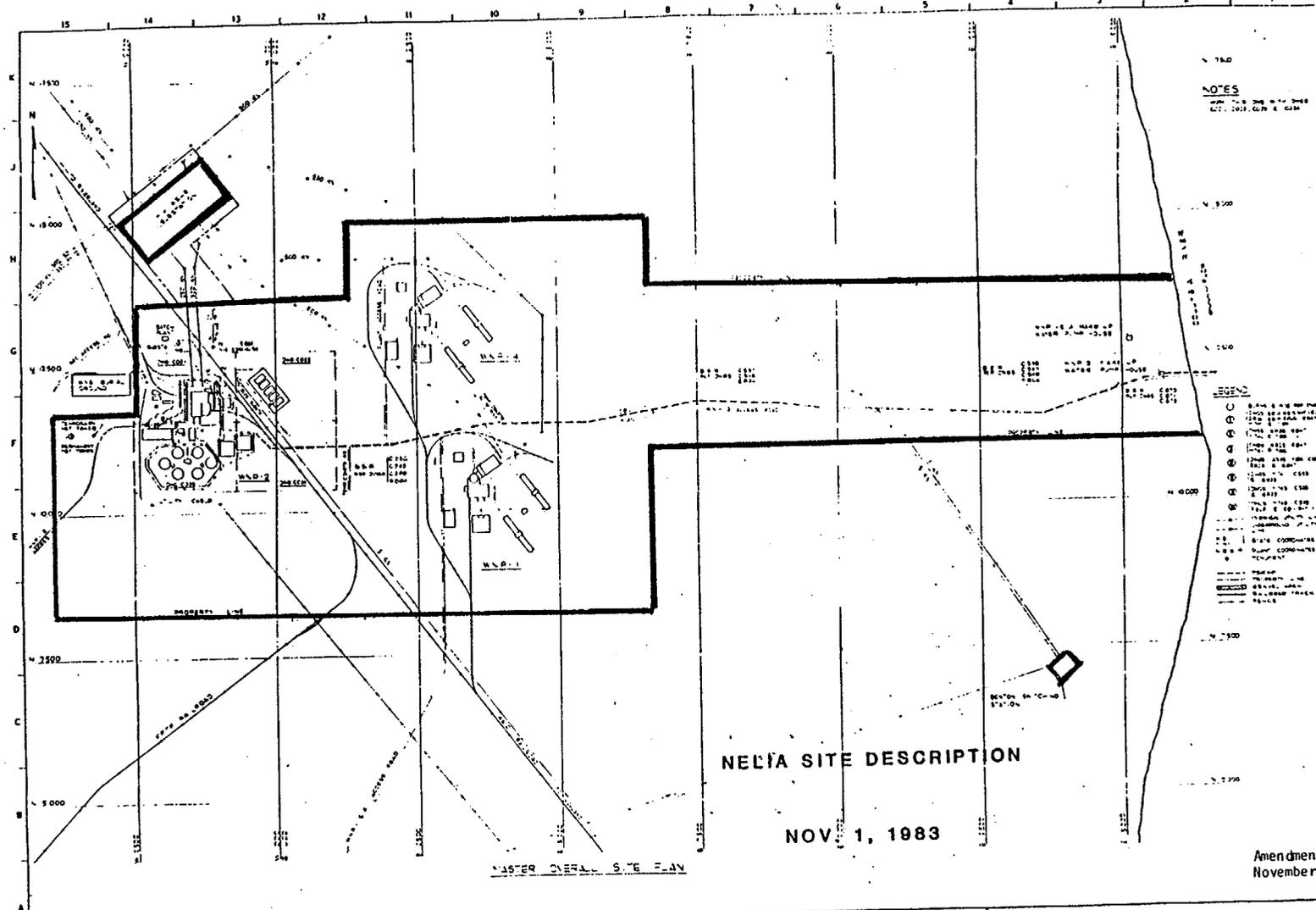
Nuclear Energy Liability Policy (Facility Form) No. MF-110
issued by Mutual Atomic Energy Liability Underwriters.

FOR THE UNITED STATES NUCLEAR REGULATORY COMMISSION


Jerome Saltzman, Assistant Director
State and Licensee Relations
Office of State Programs

Accepted _____ 1983

By _____
Washington Public Power Supply System



NOTES
 1. ALL DIMENSIONS ARE IN FEET
 2. ALL DIMENSIONS ARE TO CENTERLINE UNLESS OTHERWISE NOTED

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NELIA SITE DESCRIPTION

NOV 1, 1983

Amendment No. 7
 November 1979

WASHINGTON PUBLIC POWER SUPPLY SYSTEM NUCLEAR PROJECT NO. 2	PLANT SITE ARRANGEMENT	FIGURE 1.2-1a
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ISSUED DECEMBER 20, 1983

DISTRIBUTION

WPPSS Nuclear Project No. 2 Operating License No. NPF-21

- *Document Control
- *NRC PDR
- *L PDR
- *PRC System
- *NSIC
 - LB#2 Reading
 - ASchwencer
- *RAuluck
- *EHylton (5) (1 TS)
- *Attorney, OELD
 - DEisenhut/RPurple
 - TNovak
 - ELJordan, DEQA:IE
 - JMTaylor, DRP:IE
- *LJHarmon, IE File (2)
 - JSouder
 - WMiller
 - IDinitz
- *WJones, OA (10)
- *TBarnhart (4)
 - BPCotter, ASLBP
 - ARosenthal, ASLAP
 - ACRS (16)
 - MPA
 - CMiles, OPA
- *DBrinkman, SSPB
- MDuncan

* w/Technical Specifications



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

DOCKET NO. 50-397

WPPSS NUCLEAR PROJECT NO. 2

FACILITY OPERATING LICENSE

License No. NPF-21

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
 - A. The application for license filed by the Washington Public Power Supply System (WPPSS, also the licensee), complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's regulations set forth in 10 CFR Chapter I, and all required notifications to other agencies or bodies have been duly made;
 - B. Construction of Washington Public Power Supply System, Nuclear Project No. 2 (the facility) has been substantially completed in conformity with Construction Permit No. CPPR-93 and the application, as amended, the provisions of the Act, and the regulations of the Commission;
 - C. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the regulations of the Commission (except as exempted from compliance in Section 2.D. below);
 - D. There is reasonable assurance: (i) that the activities authorized by this operating license can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations set forth in 10 CFR Chapter I (except as exempted from compliance in Section 2.D. below);
 - E. The Washington Public Power Supply System is technically qualified to engage in the activities authorized by this license in accordance with the Commission's regulations set forth in 10 CFR Chapter I;
 - F. The Washington Public Power Supply System has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements", of the Commission's regulations;

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- G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental and other costs and considering available alternatives, the issuance of this Facility Operating License No. NPF-21, subject to the conditions for protection of the environment set forth in the Environmental Protection Plan attached as Appendix B, is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied; and
 - I. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40 and 70.
2. Based on the foregoing findings regarding this facility, Facility Operating License NPF-21 is hereby issued to the Washington Public Power Supply System (the licensee) to read as follows:
- A. This license applies to the WPPSS Nuclear Project No. 2 (WNP-2), a boiling water nuclear reactor and associated equipment, owned by the Washington Public Power Supply System. The facility is located on Hanford Reservation in Benton County near Richland, Washington, and is described in the licensee's "Final Safety Analysis Report", as supplemented and amended, and in the licensee's Environmental Report, as supplemented and amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Washington Public Power Supply System:
 - (1) Pursuant to Section 103 of the Act and 10 CFR Part 50, to possess, use, and operate the facility at the designated location on Hanford Reservation, Benton County, Washington, in accordance with the procedures and limitations set forth in this license;
 - (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

- (3) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source of special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (5) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at reactor core power levels not in excess of 3323 megawatts thermal (100% power) in accordance with the conditions specified herein and in Attachment 1 to this license. The preoperational tests, startup tests and other items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license. Pending Commission approval, this license is restricted to power levels not to exceed 5 percent of full power (166 megawatts thermal);

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, are hereby incorporated into this license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan;

(3) Initial Test Program (Section 14, SER)*

The licensee shall conduct the initial test program (set forth in Section 14 of the licensee's Final Safety Analysis Report, as amended) without making any modifications of this program unless such modifications are in accordance with the provisions of 10 CFR Section 50.59. In addition, the licensee shall not make any major modifications to this program unless modifications have been identified and have received prior NRC approval. Major modifications are defined as:

- (a) Elimination of any test identified in Section 14 of the licensee's Final Safety Analysis Report, as amended, as being essential;
- (b) Modification of test objectives, methods or acceptance criteria for any test identified in Section 14 of the licensee's Final Safety Analysis Report, as amended, as being essential;
- (c) Performance of any test at a power level different from that described in the program; and
- (d) Failure to complete any tests included in the described program (planned or scheduled) for power levels up to the authorized power level.

(4) Seismic Equipment Qualification (Section 3.10, SSER #4)

Prior to startup following the first refueling outage, the licensee shall complete seismic qualifications for all equipment approved by the NRC staff for interim operation.

(5) Equipment Qualification (Sections 3.10.1, 3.11.3, SSER #4)

Prior to exceeding five (5) percent of rated power, the licensee shall provide the staff for their review and approval:

- (a) assurance that all equipment listed in Appendix 3B is either environmentally qualified or provide justification for interim operation.

*The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplements wherein the license condition is discussed.

- (b) for all pipe-mounted safety-related equipment, provide assurance that the "g" values for the as-installed configuration do not exceed the "g" values established in the equipment qualification information documentation (QID) files or provide justification for interim operation.

(6) Ultimate Heat Sink (Section 2.4.5, SER)

Prior to startup following the first refueling outage, the licensee shall perform operational testing of the ultimate heat sink spray ponds to verify analyzed parameters of drift loss, seepage and operational capacity. The licensee shall inform the NRC staff of scheduled testing at least 30 days in advance of such testing and shall provide the test results and conclusions for NRC review and approval.

(7) Turbine Missiles (Section 3.5.1.3, SSER #4)

The licensee shall submit for NRC staff approval, within three years of date of issuance of this license, a turbine system maintenance program based on the manufacturer's calculations of missile generation probabilities acceptable to the NRC staff or volumetrically inspect all low pressure turbine rotors at the second refueling outage, and at every other refueling outage thereafter until a maintenance program is approved by the NRC staff.

(8) Fuel Coolability (Section 4.2.3.3(1), SER)

Prior to startup following the first refueling outage, the licensee shall provide for NRC staff review and approval revised analyses showing the effects of high-burnup fission gas release on loss-of-coolant accident.

(9) Inadequate Core Cooling (ICC) Instrumentation Analysis (Section 4.4.7, SER)

The licensee shall implement staff's requirements regarding additional instrumentation for detection of inadequate core cooling which may result from the staff's review of the BWR Owner's Group Reports (SLI-8211 and SLI-8218) and the licensee's plant specific evaluation report addressing the subjects. Any required modifications shall be completed on a schedule acceptable to the NRC staff.

(10) Thermal-Hydraulic Stability (Section 4.4.4, SER)

Prior to startup following the first refueling outage, the licensee shall provide for NRC staff review and approval a revised stability analysis.

(11) Shield Wall Deferral (Section 12.3.2, SSER #4)

The licensee shall complete construction of deferred shield walls as identified in Attachment 3 to this license within one (1) year after issuance of this operating license or prior to operation of the permanent solid radioactive waste solidification system, whichever occurs first.

(12) Alternate Remote Shutdown System (Section 7.4.2.3, SSER #1)

Prior to startup following the first refueling outage, the licensee shall install, test, and have operable the alternate remote shutdown system.

(13) Post Accident Sampling (TMI Action Item II.B.3, Section 9.3.2.4, SER, SSER #4)

Prior to exceeding five (5) percent of rated thermal power, the licensee shall install, test, and have operable the Post Accident Sampling System.

(14) Fire Protection Program, (Section 9.5.1, SER, SSER #3, SSER #4)

The licensee shall maintain in effect all provisions of the approved fire protection program.

(15) BWR Startup or Operating Experience (Section 13.1.2.1(1), SER)

During the startup test program, the licensee shall have on each shift a licensed individual with previous startup or operating experience on a comparable BWR, or an advisor who meets these experience requirements.

(16) Emergency Response Capability (Section 18.0, SER, SSER#4, TMI Item I.D.1 and Section 13.5.2, SER, SSER #4)

The licensee shall correct the design deficiencies for the control room and complete the other related emergency response capabilities as required by Attachment 2 to this license.

(17) Operation with Partial Feedwater Heating (Section 15.1, SER)

The licensee shall not operate with partial feedwater heating for the purpose of extending the normal fuel cycle unless acceptable justification is provided to and approved by NRC staff.

(18) Modification of Automatic Depressurization System Logic - Feasibility for Increased Diversity for Some Event Sequences (II.K.3.18, Section 6.3.5, SER, SSER #4)

Prior to startup following the first refueling outage, the licensee shall:

- (a) Install modifications to the Automatic Depressurization System acceptable to the NRC;
- (b) Incorporate into the Plant Emergency Procedures the usage of the inhibit switch; and
- (c) Provide Technical Specifications for the bypass timer setting and surveillance requirements for the bypass timer and the manual inhibit switch.

(19) Relocation of Engine-Mounted Controls (Section 9.5.4.1, SER, SSER #4)

Prior to startup following the first refueling outage, the controls and monitoring instrumentation on the HPCS diesel engine skid shall be installed in a freestanding floor mounted panel separate from the engine skid. The controls and monitoring instrumentation shall be located in a vibration free floor area or shall be qualified for the vibrations that will occur during engine operation.

(20) Emergency Diesel Engine Starting System (Section 9.5.6, SER, SSER #4)

Prior to startup following the first refueling outage, air dryers shall be installed in the diesel engine air starting system.

(21) Control Room Chillers Installation (Section 9.4.1, SER, SSER #4)

The licensee shall have operable before May 31, 1984, redundant, seismic Category I environmentally qualified water chillers for control room HVAC.

(22) Control Systems Failures (Sections 7.7.2.1, 7.7.2.2, 7.5.2.3, SER, SSER#4)

Prior to startup following the first refueling outage, the licensee shall provide to NRC staff for review and approval any analysis or modifications needed to resolve the following items.

- (a) capability to attain a safe shutdown condition following the loss of any Class 1E instrument bus
- (b) the impact of control systems failures resulting from high energy line breaks on the transient and accident analyses
- (c) the impact of control systems failures due to the failure of common power sources, sensors, or instrument sensing lines on the transient analyses.

(23) Hydrodynamic Loads (Section 3.9.3.1 SER, SSER#4)

Prior to exceeding five (5) percent of rated thermal power, the licensee shall provide for NRC staff review and approval the results of the reconciliation of the hydrodynamic loads for all the safety-related piping, equipment and their supports.

(24) Emergency Planning Program (Section 13.3, SER, SSER#4)

Prior to exceeding five (5) percent of rated thermal power, functionally specific training in emergency response duties must be provided to the remaining members of the emergency organization staff who were not included in previous emergency preparedness training specified in the minimum staffing requirements of Table B-1 of NUREG-0654 (including on-shift and 30 and 60 minute augmentation capability).

(25) Offsite Emergency Preparedness (Section 13.3, SSER #4)

Prior to exceeding five (5) percent of rated thermal power, the licensee shall certify to the NRC that:

- (1) The distribution of tone alert radios, which are part of the alert and notification system, has been completed to residents within the plume exposure pathway Emergency Planning Zone (EPZ).
- (2) The distribution of public information brochures has been completed to the population within the plume exposure pathway EPZ.

(26) Progress of Offsite Emergency Preparedness (Appendix D, SER)

In the event that the NRC finds that the lack of progress in completion of the procedures in the Federal Emergency Management Agency's final rule, 44 C.F.R. Part 350, is an indication that a major substantive problem exists in achieving or maintaining an adequate state of preparedness, the provisions of 10 C.F.R. Section 50.54(s)(2) will apply.

(27) Effluent Radiation Monitors (Section 11.5, SSER #4)

Prior to July 1, 1984, the licensee shall provide the following information to the NRC staff for their review and approval:

1. Sensitivity of the effluent monitors.
2. Evaluation of response times of these instruments.
3. Evaluation of the instruments per criteria set forth in Section 5.4.7 of ANSI 13.10.
4. Compliance with Section 5.4.9 of ANSI 13.10
5. Evaluation of capability to provide a calibrated electrical signal to verify circuit alignment and, if used, a commitment that they be qualified.

(28) Environmental Qualifications (Section 3.11, SER, SSER #3, SSER #4)

Prior to March 31, 1985, the licensee shall environmentally qualify all electrical equipment according to the provisions of 10 CFR 50.49.

(29) Protection of the Environment (FES)

Before engaging in additional construction or operational activities which may result in a significant adverse environmental impact that was not evaluation or that is significantly greater than that evaluation in the Final Environmental Statement the licensee shall provide a written notification to the Director of the Office of Nuclear Reactor Regulation and receive written approval from that office before proceeding with such activities.

- D. Exemptions from certain requirements of Appendicies G, H and J to 10 CFR Part 50, are described in the Safety Evaluation Report. These exemptions are authorized by law and will not endanger life or property or the common defense and security and are otherwise in the public interest. Therefore, these exemptions are hereby granted pursuant to 10 CFR 50.12. With the granting of this exemption the facility will operate, to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.
- E. The licensee shall fully implement and maintain in effect all provisions of the approved physical security, guard training and qualification, and safeguards contingency plans, including amendments made pursuant to the authority of 10 CFR 50.54(p). The approved plans, which contain information described in 10 CFR 73.21, are collectively entitled, "WNP-2 Physical Security Plan" Revision 2, dated October 25, 1981 (letter dated October 22, 1981), and Revision 3 dated March 4, 1983; (letter dated April 14, 1983), Revision 4 dated October 12, 1983 (letter dated October 21, 1983 with supplemental letter dated November 7, 1983), Revision 5 dated November 22, 1983, (letter dated November 28, 1983); "WNP-2 Safeguards Contingency Plan" Revision 1 dated April 1, 1981 (letter dated March 14, 1983), and Revision 3 dated October 12, 1983 (letter dated October 21, 1983); and "WNP-2 Training and Qualification Plan" dated November 16, 1979 (letter dated November 16, 1979), Revision 1 dated June 26, 1981 (letter dated July 1, 1981), and Revision 2 dated November 2, 1981 (letter dated October 14, 1981).
- F. With the exception of 2.C(2) the licensee shall report any violations of the requirements contained in Section 2.C, and E of this license within 24 hours by telephone and confirm by telegram, mailgram, or facsimile transmission to the NRC Regional Administrator, Region V, or that administrator's designee, no later than the first working day following the violation, with a written followup report within 14 days.
- G. The licensee shall notify the Commission, as soon as possible but not later than one hour, of any accident at this facility which could result in an unplanned release of quantities of fission products in excess of allowable limits for normal operation established by the Commission.
- H. The licensee shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.

I. This license is effective as of the date of issuance and shall expire at Midnight on December 20, 2023.

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Attachments/Appendices:

- 1. Attachment 1
- 2. Attachment 2
- 3. Attachment 3
- 4. Appendix A - Technical Specifications (NUREG-1009)
- 5. Appendix B - Environmental Protection Plan

Date of Issuance: DEC 20 1983

*SEE PREVIOUS CONCURRENCES

DL:LB#2/PM *
RAuluck:pt
12/12/83

DL:LB#2/LA*
EGHylton
12/12/83

DL:LB#2/BC*
ASchwencer
12/12/83

OELD *
WPaton
12/12/83

DL:AD/L
TNovak
12/14/83

DL:DR
DEisenhut
12/20/83

NRR
EGCase
12/ /83

NRR
HRDenton
12/20/83

ATTACHMENT 1 TO WPPSS NUCLEAR PROJECT NO. 2
OPERATING LICENSE NPF-21

The licensee shall complete the following requirements within the schedule noted below:

1. Preoperational/Acceptance Tests

- a. The licensee shall, prior to loading of fuel in the core, complete the System 36 preoperational testing to assure that those monitors required for fuel load fully meet the Technical Specification requirements without reliance on action statements:
- b. The licensee shall successfully complete the following preoperational/acceptance tests before exceeding 5% power:

- PT 33.0-B Chemical Waste Processing
- PT 37.0-D Miscellaneous Radiation Monitoring Equipment
- PT 40.0-A Off-Gas System
- AT 65.0-A Sealing Steam System
- AT 66.0-A Condenser Air Removal
- PT 69.0-A Condensate System
- PT 70.0-A Condensate Storage Transfer
- PT 71.0-A Condensate Filter Demineralizer System
- PT 72.0-A Reactor Feedwater Turbine and Pumps
- PT 72.0-B Reactor Feedwater Controls
- AT 74.0-A Heater Vents and Drains
- AT 82.0-A Turbine Building Heating and Ventilating
- PT 92.0-A Off-Gas Vault HVAC
- AT 110.0-A Loose Parts Detection
- PT 201.0-A Primary Containment Integrated Leakage Rate Test
- AT 302.0-A Integrated Condenser In-Leakage Test

- c. The licensee shall complete PT 22.0-B, Nitrogen Interting System prior to six months after initial criticality.

2. Hangers Supports, and Restraints

All QI-SI and QII-SI hangers, supports, and restraints needing installation and/or modification will be completed prior to exceeding 5% power.

3. Construction Completion (Master Completion List Schedule)

The licensee shall restrain fuel loading, primary system steam pressurization, exceeding 5% power, and commercial operation* by prerequisite completion of the associated categories of items in accordance with the schedule shown on the Project Master Completion List dated December 19, 1983. The licensee shall not extend the completion categories for individual items on the list without prior notification and individual concurrence by a representative of the NRC Regional Office.

*Commercial operation is defined as the 100% power warranty run or July 1, 1984, whichever occurs first.

ATTACHMENT 2

The licensee shall complete the following requirements on the schedule noted below:

1. Detailed Control Room Design Review (DCRDR)

The licensee shall submit a program plan for DCRDR for NRC staff review within two (2) months after the issuance of this operating license and a summary report not later than six (6) months prior to the first refueling outage.

2. Control Room Design Improvements

The licensee shall correct and implement to the NRC staff's satisfaction, the following human engineering deficiencies prior to exceeding five (5) percent of rated thermal power:

- A 5.17* Inoperative System Status Panels
- A 7.15 Inoperative TDAS and GDS computer systems
- D 3.59 Multiple-meaning abbreviations, lack of abbreviation control
- D 4.23 Hard-to-operate pushbuttons on controllers
- D 5.40 Non-standard fuel-zone monitor meter scale, P-601
- D 5.44 Identical push button/non-push button status lights, P-820
- D 5.46 Identical push button/push button indicator lights, Rod Worth Minimizer, Rod Monitor control subpanels, P-603
- D 6.101 Inadequate labeling, Isolation Control, P-601
- D 8.38 Non-identical RFW meter groupings for Systems A & B, P-840
- D 9.5 Inconsistent scales, CW Inlet Plenum Lever Indicator and Controller, P-840
- E 5.61 Recorder pointers obscure scale numerals/graduation marks
- E 5.69 RPV depressurization procedures call for greater reading accuracy than is provided by pressure indicators
- F 4.37 Switch handles obscure pointers/labels, P-800

The licensee shall correct and implement to the NRC staff's satisfaction, the following human engineering deficiencies within four (4) months after the issuance of this operating license:

- A 3.4 Audio alarm signal detection and intensity levels
- D 4.22 Extension handles for throttlable valve controls, P-820
- D 5.49 Proper chart paper for Generator Monitor Temperature Recorder, P-820
- E 3.71 Inconsistent pushbutton color coding
- E 4.27 Extension handle for RPS reset switch, P-603
- F 6.115 Inconsistent fonts, switch escutcheon legends
- F 6.116 Inconsistent pushbutton color coding

* HED finding identification as given in NRC letter to D. W. Mazur dated 9/20/83.

3. Regulatory Guide 1.97, Revision 2 Compliance

- (a) The licensee shall implement (installation or upgrade) requirements of R.G. 1.97 Rev. 2 with the exception of flux monitoring prior to startup following the first refueling outage.
- (b) The licensee shall implement (installation or upgrade) requirements of R.G. 1.97 Rev. 2 for flux monitoring prior to March 31, 1985.

4. Upgrade Emergency Operating Procedures (EOPs)

The licensee shall provide within two(2) months after the issuance of this operating license, an addendum to the Procedures Generation Package describing the function and task analysis as identified in Supplement 1 to NUREG-0737.

5. Emergency Response Facilities

The licensee shall have fully functional emergency response facilities (Technical Support Center, Operational Support Center, and Emergency Operations Facility) prior to exceeding five (5) percent of rated power.

ATTACHMENT 3

LIST OF SHIELD WALLS

1. FSAR Figure 12.3-22, Zone H-9 - The partial height wall outside the spent resin tank room.
2. FSAR Figure 12.3-26, Zone G-12 - The tube access wall to the main condenser.
3. FSAR Figure 12.3-27, Zone D-11 - The access blockout to the spare demineralizer cubicle.
5. FSAR Figure 12.3-33, Zone G-9 - Same as above for the duplicate centrifuge room.
6. FSAR Figure 12.3-33, Zone F-9 - Same as above for the duplicate centrifuge.
7. FSAR Figure 12.3-34, Zone H-5/J-5 - The blockout for one of the two decon concentrators.
8. FSAR Figure 12.3-32, Zone D-8 - The two block walls at the north end of the truck loading bay.
9. FSAR Figure 12.3-32, Zone E-8 - The leaded glass viewing window in the radwaste area.

Technical Specifications

WPPSS Nuclear Project No. 2

Docket No. 50-397

Appendix "A" to
License No. NPF-21

Issued by the
**U.S. Nuclear Regulatory
Commission**

Office of Nuclear Reactor Regulation

December 1983



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Washington, DC 20555
2. The NRC/GPO Sales Program, U.S. Nuclear Regulatory Commission,
Washington, DC 20555
3. The National Technical Information Service, Springfield, VA 22161

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