

April 13, 1988

Docket No. 50-397

Mr. G. C. Sorensen, Manager  
Regulatory Programs  
Washington Public Power Supply System  
P.O. Box 968  
3000 George Washington Way  
Richland, Washington 99352

Dear Mr. Sorensen:

Subject: Issuance of Amendment No. 55 to Facility Operating  
License NPF-21 - WPPSS Nuclear Project No. 2 (TAC NO 65568)

The U.S. Nuclear Regulatory Commission has issued the enclosed amendment to Facility Operating License NPF-21 to the Washington Public Power Supply System for WPPSS Nuclear Project No. 2, located in Benton County near Richland, Washington. This amendment is in response to your letter dated June 1, 1987 (G02-87-188).

This amendment revises WNP-2 Technical Specification Table 4.3.2.1-1 "Isolation Actuation Instrumentation Surveillance Requirements." The channel check requirements (once per shift) are deleted for the reactor water level 2 instruments that provide the containment isolation function.

A copy of the related safety evaluation supporting the amendment to Facility Operating License No. NPF-21 is enclosed. Notice of issuance will be include in the Commission's bi-weekly Federal Register notice.

Sincerely,

original signed by

Robert B. Samworth, Senior Project Manager  
Project Directorate V  
Division of Reactor Projects - III, IV, V  
& Special Projects  
Office of Nuclear Reactor Regulation

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Enclosures:

1. Amendment No. 55 to Facility Operating License No. NPF-21
2. Safety Evaluation

cc w/enclosures:

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

April 13, 1988

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Sincerely,

A handwritten signature in cursive script that reads "Robert B. Samworth".

Robert B. Samworth, Senior Project Manager  
Project Directorate V  
Division of Reactor Projects - III, IV, V  
& Special Projects  
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 55 to Facility  
Operating License No. NPF-21
2. Safety Evaluation

cc w/enclosures:  
See next page

Mr. G. C. Sorensen, Manager  
Washington Public Power Supply System

WPPSS Nuclear Project No. 2  
(WNP-2)

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

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

DOCKET NO. 50-397

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 55  
License No. NPF-21

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:
  - A. The application for amendment filed by the Washington Public Power Supply System (the Supply System, also the licensee), dated June 1, 1987 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;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the regulations of the Commission;
  - C. There is reasonable assurance: (i) that the activities authorized by this amendment 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;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the enclosure to this license amendment and paragraph 2.C.(2) of the Facility Operating License No. NPF-21 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. 55, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. This amendment is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



George W. Knighton, Director  
Project Directorate V  
Division of Reactor Projects III, IV, V  
and Special Projects  
Office of Nuclear Reactor Regulation

Enclosure:  
Changes to the Technical  
Specifications

Date of Issuance: April 13, 1988

ENCLOSURE TO LICENSE AMENDMENT NO. 55

FACILITY OPERATING LICENSE NO. NPF-21

DOCKET NO. 50-397

Replace the following pages of the Appendix "A" Technical Specifications with the enclosed pages. The revised pages are identified by Amendment number and contain vertical lines indicating the areas of change.

REMOVE

INSERT

3/4 3-22

3/4 3-22

3/4 3-23

3/4 3-23

Pages 3/4 3-21 and 3/4 3-24 are provided for document completeness.

TABLE 3.3.2-3 (Continued)

ISOLATION SYSTEM INSTRUMENTATION RESPONSE TIME

TABLE NOTATIONS

(a) The isolation system instrumentation response time shall be measured and recorded as a part of the ISOLATION SYSTEM RESPONSE TIME. Isolation system instrumentation response time specified includes the diesel generator starting and sequence loading delays assumed in the accident analysis.

(b) Radiation detectors are exempt from response time testing. Response time shall be measured from detector output or the input of the first electronic component in the channel.

\*Isolation system instrumentation response time for MSIVs only. No diesel generator delays assumed.

\*\*Isolation system instrumentation response time for associated valves except MSIVs.

#Isolation system instrumentation response time specified for the Trip Function actuating each valve group shall be added to isolation time shown in Table 3.6.3-1 and 3.6.5.2-1 for valves in each valve group to obtain ISOLATION SYSTEM RESPONSE TIME for each valve.

##This response time does not include the 45-second time delay.

TABLE 4.3.2.1-1

ISOLATION ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED</u>
<b>1. <u>PRIMARY CONTAINMENT ISOLATION</u></b>				
a. Reactor Vessel Water Level-				
1) Low, Level 3	S	M	R	1, 2, 3
2) Low Low, Level 2	N.A.	M	R	1, 2, 3
b. Drywell Pressure - High	N.A.	M	R	1, 2, 3
c. Main Steam Line				
1) Radiation - High	S	M	R	1, 2, 3
2) Pressure - Low	N.A.	M	R	1
3) Flow - High	S	M	R	1, 2, 3
d. Main Steam Line Tunnel				
Temperature - High	S	M	R	1, 2, 3
e. Main Steam Line Tunnel				
Δ Temperature - High	S	M	R	1, 2, 3
f. Condenser Vacuum - Low	N.A.	M	R	1, 2*, 3*
g. Manual Initiation	N.A.	R	N.A.	1, 2, 3
<b>2. <u>SECONDARY CONTAINMENT ISOLATION</u></b>				
a. Reactor Building Vent				
Exhaust Plenum				
Radiation - High	S	M	R	1, 2, 3, and **
b. Drywell Pressure - High	N.A.	M	R	1, 2, 3
c. Reactor Vessel Water				
Level - Low Low, Level 2	N.A.	M	R	1, 2, 3, and #
d. Manual Initiation	N.A.	R	N.A.	1, 2, 3, and **

TABLE 4.3.2.1-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED</u>
<b>3. REACTOR WATER CLEANUP SYSTEM ISOLATION</b>				
a. $\Delta$ Flow - High	S	M	R	1, 2, 3
b. Heat Exchanger Area Temperature - High	S	M	R	1, 2, 3
c. Heat Exchanger Area Ventilation $\Delta$ Temperature - High	S	M	R	1, 2, 3
d. Pump Area Temperature - High				
Pump Room A	S	M	R	1, 2, 3
Pump Room B	S	M	R	1, 2, 3
e. Pump Area Ventilation $\Delta$ Temp. - High				
Pump Room A	S	M	R	1, 2, 3
Pump Room B	S	M	R	1, 2, 3
f. SLCS Initiation	N.A.	R	N.A.	1, 2, 3
g. Reactor Vessel Water Level - Low Low, Level 2	N.A.	M	R	1, 2, 3
h. RWCU/RCIC Line Routing Area Temperature - High	S	M	R	1, 2, 3
i. RWCU Line Routing Area Temperature - High	S	M	R	1, 2, 3
j. Manual Initiation	N.A.	R	N.A.	1, 2, 3
<b>4. REACTOR CORE ISOLATION COOLING SYSTEM ISOLATION</b>				
a. RCIC Steam Line Flow - High	S	M	R	1, 2, 3
b. RCIC/RHR Steam Line Flow - High	S	M	R	1, 2, 3
c. RCIC Steam Supply Pressure - Low	N.A.	M	R	1, 2, 3
d. RCIC Turbine Exhaust Diaphragm Pressure - High	N.A.	M	R	1, 2, 3
e. RCIC Equipment Room Temperature - High	S	M	R	1, 2, 3
f. RCIC Equipment Room $\Delta$ Temperature - High	S	M	R	1, 2, 3

TABLE 4.3.2.1-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>TRIP FUNCTION</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>CHANNEL CALIBRATION</u>	<u>OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED</u>
<b>4. <u>REACTOR CORE ISOLATION COOLING SYSTEM ISOLATION</u> (Continued)</b>				
g. RWCU/RCIC Steam Line Routing Area Temperature - High	S	M	R	1, 2, 3
h. Drywell Pressure - High	N.A.	M	R	1, 2, 3
i. Manual Initiation	N.A.	R	N.A.	1, 2, 3
<b>5. <u>RHR SYSTEM SHUTDOWN COOLING MODE ISOLATION</u></b>				
a. Reactor Vessel Water Level - Low, Level 3	S	M	R	1, 2, 3
b. Reactor Vessel (RHR Cut-in Permissive) Pressure - High	N.A.	M	R	1, 2, 3
c. Equipment Area Temperature - High	S	M	R	1, 2, 3
d. Equipment Area Ventilation $\Delta$ Temp. - High	S	M	R	1, 2, 3
e. Shutdown Cooling Return Flow Rate - High	N.A.	M	R	1, 2, 3
f. RHR Heat Exchanger Area Temperature - High	S	M	R	1, 2, 3
g. Manual Initiation	N.A.	R	N.A.	1, 2, 3

TABLE NOTATIONS

\* When reactor steam pressure  $\geq$  1037 psig and/or any turbine stop valve is open.

\*\* When handling irradiated fuel in the secondary containment and during CORE ALTERATIONS and operations with a potential for draining the reactor vessel.

# During CORE ALTERATION and operations with a potential for draining the reactor vessel.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 55 TO FACILITY OPERATING LICENSE NO. NPF-21  
WASHINGTON PUBLIC POWER SUPPLY SYSTEM  
WASHINGTON NUCLEAR PROJECT NO. 2  
DOCKET NO. 50-397

1.0 INTRODUCTION

By application dated June 1, 1987, Washington Public Power Supply System (the licensee) requested an amendment to the Technical Specification for Facility Operating License No. NPF-21 for the WNP-2 Plant. The amendment would delete the channel check (once per shift) requirements for the reactor water level 2 instruments to initiate the containment isolation function. This change recognizes that the new instruments installed at the plant for this isolation function do not have indication in the control room to support once per shift channel check capability, but still satisfy the design bases function.

2.0 EVALUATION

The licensee stated that prior to November 30, 1985 and in order to satisfy the license condition 2.C.(28) (Equipment Qualification), four level indicating trip switches that provide the Reactor Water Level 2 containment isolation function were replaced with Class 1E qualified instruments. The instruments identification numbers are MS-LITS-26A through D. The new qualified level switch (static "0" ring differential pressure switch) does not have indication in the control room. However, the post-accident monitoring instrumentation sensors (Rosemount transmitters), which share the common reference leg with the level switches, have indicators in the control room. The post accident monitoring instruments are required to have a channel check performed once per shift in accordance with the Technical Specification Table 4.3.7.5-1. The level switches and the Rosemount transmitters are required to have a channel function test performed once a month. The licensee has established an acceptable correlation between the level switches and the transmitters.

The post-accident monitoring reactor level instruments have two ranges - wide range and fuel range. The wide range water level is sensed by two divisionally separated differential pressure (dp) transmitters. The signals are displayed in the control room on two recorders. The fuel range water level is sensed by two separate dp transmitters which overlap the wide range to provide water level in the actual core region. The fuel range water level is displayed in the control room on a recorder and an indicator. The primary containment isolation valves position indications are displayed by a transient data acquisition system, and are

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also displayed at valve controls in the control room. The primary containment and reactor vessel isolation system variable and trip logic status are annunciated when isolation occurs.

The reactor water level 3, which initiates the reactor scram and also actuates the primary containment isolation, is detected by two separate transmitters. The level 3 instruments are required by the Technical Specification to have a channel check performed once per shift and a channel functional test performed once per month.

Based on the information provided by the licensee and our ensuing review, the staff finds that there is sufficient information available to the operator with respect to the reactor vessel water level to actuate the containment isolation and the reactor water cleanup system isolation. The licensee's request to delete the channel check requirements for the reactor vessel level 2 actuation in the Technical Specification Table 4.3.2.1-1 is, therefore, acceptable.

### 3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change in the installation and use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that this amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Part 51.22(c)(9). Pursuant to 10 CFR Part 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

### 4.0 CONTACT WITH STATE OFFICIAL

The Commission made a proposed determination that the amendment involves no significant hazards consideration and has consulted with the State of Washington. No public comments were received, and the State of Washington did not have any comment.

### 5.0 CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and (3) the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Hulbert Li, NRR

Dated: April 13, 1988