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

JUN 25 1985

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. 13 TO FACILITY OPERATING LICENSE NPF-21, WPPSS NUCLEAR PROJECT NO. 2

The U. S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 13 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 February 27, 1985.

This action amends the WNP-2 Technical Specifications Emergency Core Cooling System Activation Instrumentation, Tables 3.3.3-1, 3.3.3-2 and 4.3.3.1-1 to permit replacement of the High Pressure Coolant System pump discharge pressure signal with a "pump running" signal taken directly from the pump breaker.

A copy of the related safety evaluation supporting Amendment No. 13 to Facility Operating License No. NPF-21 is enclosed.

Sincerely,

Walter R. Butler

Walter R. Butler, Chief
Licensing Branch No. 2
Division of Licensing

Enclosures:
1. Amendment No. 13 to Facility Operating License 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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Sincerely,

Original signed by

Walter R. Butler, Chief
Licensing Branch No. 2
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Enclosures:
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cc w/enclosures:
See next page

DL:LB#2	DL:LB#2	OELD	DL:LB#2	AD/L/DL
JBradfute	Elrod	WPaton	WButler	TMNovak
06/20/85	06/21/85	06/20/85	06/21/85	06/ /85

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

FOR THE NUCLEAR REGULATORY COMMISSION

Original signed by:
Walter R. Butler, Chief
Licensing Branch No. 2
Division of Licensing

Enclosure:
Changes to Technical Specifications

Date of Issuance: JUN 25 1985

DL:LB#2	DL:LB#2	OELD	DL:LB#2	AD/L/DL	DSI/RSB
EHylton	JBradfute	WPaton	Butler	TNovak	BSheron
06/21/85	06/20/85	06/20/85	06/21/85	06/25/85	06/21/85

Issuance of Amendment No. 13 to Facility Operating License No. NPF-21
WPPSS Nuclear Project No. 2

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

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

DOCKET NO. 50-397

WPPSS NUCLEAR PROJECT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

License No. NPF-21
Amendment No. 13

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 February 27, 1985, 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 as amended, 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 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, Facility Operating License No. NPF-21 is amended to revise the Technical Specifications as indicated in the attachments to this amendment and paragraph 2.C.(2) of Facility Operating License 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. 13, 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

Walter R. Butler

Walter R. Butler, Chief
Licensing Branch No. 2
Division of Licensing

Enclosure:
Changes to Technical Specifications

Date of Issuance: JUN 25 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 13
FACILITY OPERATING LICENSE NO. NPF-21
DOCKET NO. 50-397

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

REMOVE	INSERT
3/4 3-28	3/4 3-28
3/4 3-32	3/4 3-32
3/4 3-36	3/4 3-36

TABLE 3.3.3-1 (Continued)

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION

TRIP FUNCTION	MINIMUM OPERABLE CHANNELS PER TRIP SYSTEM(a)	APPLICABLE OPERATIONAL CONDITIONS	ACTION
C. DIVISION 3 TRIP SYSTEM			
1. HPCS SYSTEM			
a. Reactor Vessel Water Level - Low, Low, Level 2	2(b)	1, 2, 3, 4*, 5*	30
b. Drywell Pressure - High	2(b)	1, 2, 3	30
c. Reactor Vessel Water Level-High, Level 8	2(c)	1, 2, 3, 4*, 5*	32
d. Condensate Storage Tanks Level-Low	2(d)	1, 2, 3, 4*, 5*	36
e. Suppression Pool Water Level-High	2(d)	1, 2, 3, 4*, 5*	36
f. HPCS System Flow Rate-Low (Minimum Flow)	1	1, 2, 3, 4*, 5*	31
g. Manual Initiation	1/division	1, 2, 3, 4*, 5*	34

	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE OPERATIONAL CONDITIONS	ACTION
D. LOSS OF POWER					
1. 4.16 kV Emergency Bus Under-voltage (Loss of Voltage)	2/bus	1/bus	2/bus	1, 2, 3, 4**, 5**	37
2. 4.16 kV Emergency Bus Under-voltage (Degraded Voltage)	3/bus	2/bus	2/bus	1, 2, 3, 4**, 5**	38

TABLE NOTATIONS

(a) A channel may be placed in an inoperable status for up to 2 hours during periods of required surveillance without placing the trip system in the tripped condition provided at least one other OPERABLE channel in the same trip system is monitoring that parameter.

(b) Also activates the associated division diesel generator.

(c) Provides signal to close HPCS pump discharge valve only on 2-out-of-2 logic.

(d) Provides signal to HPCS pump suction valves only.

* When the system is required to be OPERABLE per Specification 3.5.2 or 3.5.3.

** Required when ESF equipment is required to be OPERABLE.

Not required to be OPERABLE when reactor steam dome pressure is less than or equal to 128 psig.

TABLE 3.3.3-2 (Continued)

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION SETPOINTS

TRIP FUNCTION	TRIP SETPOINT	ALLOWABLE VALUE
C. DIVISION 3 TRIP SYSTEM		
1. HPCS SYSTEM		
a. Reactor Vessel Water Level - Low Low, Level 2	$\geq$ -50 inches*	$\geq$ -57 inches
b. Drywell Pressure - High	$\leq$ 1.65 psig	$\leq$ 1.85 psig
c. Reactor Vessel Water Level - High, Level 8	$\leq$ 54.5 inches*	$\leq$ 56.0 inches
d. Condensate Storage Tank Level - Low	$\geq$ 448 ft 3 in. elevation	$\geq$ 448 ft 0 in. elevation
e. Suppression Pool Water Level - High	$\leq$ 466 ft 8 in. elevation	$\leq$ 466 ft 10 in. elevation
f. HPCS System Flow Rate - Low (Minimum Flow)	$\geq$ 1250 gpm	$\geq$ 1200 gpm
g. Manual Intiation	N.A.	N.A.
D. LOSS OF POWER		
1. 4.16 kV Emergency Bus Undervoltage Loss of Voltage ##	a. 4.16 kV Basis - 2870 ± 86 volts b. 120 V Basis - 82 ± 2.5 volts	2870 ± 172 volts 82 ± 5 volts
a. Divisions 1 and 2	a. 4.16 kV Basis - 3016 ± 90 volts	3016 ± 180 volts
b. Division 3	b. 120 V Basis - 87 ± 2.5 volts	87 ± 5 volts
2. 4.16 kV Emergency Bus Undervoltage Degraded Voltage (Divisions 1, 2, and 3	a. 4.16 kV Basis - 3632 ± 108 volts b. 120 V Basis - 104.0 ± 3.0 volts c. 8 ± 0.04 sec time delay	3632 ± 216 volts 103.8 ± 6.0 volts 8 ± 0.8 sec time delay

TABLE NOTATIONS

*See Bases Figure B 3/4 3-1.

##These are inverse time delay voltage relays or instantaneous voltage relays with a time delay. The voltages shown are the maximum that will not result in a trip. Lower voltage conditions will result in decreased trip times.

TABLE 4.3.3.1-1 (Continued)

EMERGENCY CORE COOLING SYSTEM ACTUATION INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TRIP FUNCTION	CHANNEL CHECK	CHANNEL FUNCTIONAL TEST	CHANNEL CALIBRATION	OPERATIONAL CONDITIONS FOR WHICH SURVEILLANCE REQUIRED
C. DIVISION 3 TRIP SYSTEM				
1. HPCS SYSTEM				
a. Reactor Vessel Water Level - Low Low, Level 2	S	M	R	1, 2, 3, 4*, 5*
b. Drywell Pressure-High	N.A.	M	R	1, 2, 3
c. Reactor Vessel Water Level-High, Level 8	S	M	R	1, 2, 3, 4*, 5*
d. Condensate Storage Tank Level - Low	N.A.	M	R	1, 2, 3, 4*, 5*
e. Suppression Pool Water Level - High	N.A.	M	R	1, 2, 3, 4*, 5*
f. HPCS System Flow Rate-Low (Minimum Flow)	N.A.	M	R	1, 2, 3, 4*, 5*
g. Manual Initiation	N.A.	R	N.A.	1, 2, 3, 4*, 5*
D. LOSS OF POWER				
1. 4.16 kV Emergency Bus Undervoltage (Loss of Voltage)	N.A.	N.A.	R	1, 2, 3, 4**, 5**
2. 4.16 kV Emergency Bus Undervoltage (Degraded Voltage)	N.A	M	R	1, 2, 3, 4**, 5**

TABLE NOTATIONS

#Not required to be OPERABLE when reactor steam dome pressure is less than or equal to 128 psig.

*When the system is required to be OPERABLE per Specification 3.5.2.

**Required when ESF equipment is required to be OPERABLE.

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

SAFETY EVALUATION

AMENDMENT NO. 13 TO NPF-21

WPPSS NUCLEAR PROJECT NO. 2

DOCKET NO. 50-397

INTRODUCTION

By letter dated February 27, 1985 (GO2-85-098), Washington Public Power Supply System (the licensee) requested an amendment to the Technical Specifications of Facility Operating License NO. NPF-21 for Nuclear Plant No. 2. Additional information and clarifications were provided by the licensee during a teleconference on March 26, 1985.

EVALUATION

The Technical Specifications as presently written (Tables 3.3.3-1, 3.3.3-2 and 4.3.3.1-1) contain the requirements to perform a monthly Channel Functional Test and an annual (during refueling outage) Channel Calibration on the Pump Discharge Pressure-High (pump running) instrumentation. The present HPCS design incorporates minimum flow valve logic based on concurrent conditions of high pump discharge pressure and low system flow. The pressure switch which provides the high discharge pressure (pump running) input takes its signal downstream of the pump discharge check valve. Consequently, upon securing the pump following closure of the test flow path, high pressure can be trapped downstream of the check valve and result in the minimum flow valve remaining open with the pump off. This necessitates depressurizing the system to close the valve.

The amendment seeks to replace the high discharge pressure signal with a pump running input taken from the pump breaker. Thus, the valve would open on low flow and breaker closed (pump running) and would close on high flow or with the breaker open. With this design enhancement, the pump discharge pressure-high signal would no longer be used or needed.

The amendment eliminates drift and calibration errors associated with instrumentation and their attendant failure modes. Actuation of the system itself is being made even more affirmative from the standpoint of signal reliability; that is, the proposed pump logic is a positive indication of the pump breaker position and will automatically reflect the status of the HPCS pump without any of the problems associated with instrument channels. Furthermore, the pump minimum flow logic will be functionally verified during the HPCS Pump Quarterly Operability Test as well as during the 18 month Logic System Functional Test.

We understand from the licensee that the original LPCS minimum flow valve logic is the same as now proposed for HPCS. According to the licensee only the pump discharge pressure switch is deleted. The pump discharge pressure indications are not changed or deleted. The deletion of the pump discharge pressure switch will not result in any decreased safety, hence the proposed amendment to Technical Specification Tables 3.3.3-1, 3.3.3-2 and 4.3.3.1-1 is acceptable to the staff.

FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION The Commission has provided standards for determining whether a significant hazards consideration exists (10 CFR 50.92(c)). A proposed amendment to operating license for a facility involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; (2) create the possibility of a new or different kind of accident from an accident previously evaluated; or (3) involve a significant reduction in a margin of safety. The licensee has determined and the NRC staff agrees that the requested amendment per 10 CFR 50.92 does not:

1) Involve a significant increase in the probability or consequences of an accident previously evaluated because replacing an instrument signal with a non-instrumented signal does not degrade the HPCS system's ability to perform following an accident nor does it degrade the system pressure boundary; or

2) Create the possibility of a new or different kind of accident than previously evaluated because the post accident ECCS function of the system will not be affected; or

3) Involve a significant reduction in a margin of safety because the proposed change will have no effect on the ability of the HPCS system to meet its associated ECCS injection functions.

Accordingly, the Commission has determined that this amendment involves no significant hazard consideration.

On June 18, 1985, the Commission published in local newspapers, notice of its proposal to amend the Supply System's license. No public comment was received relative to this amendment. In addition the State of Washington had been notified by the Supply System of the request for amendment and they indicated concurrence by telephone on June 17, 1985.

ENVIRONMENTAL CONSIDERATION

This amendment involves a change to the requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves no significant change in the types or significant increase in the amounts 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 determined that this amendment involves no significant hazards consideration. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

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 the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: JUN 25 1985

Principal Contributor: G. Thomas