UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

April 30, 2001

Mr. J. V. Parrish
Chief Executive Officer
Energy Northwest
P.O. Box 968 (Mail Drop 1023)
Richland, WA 99352-0968

SUBJECT: COLUMBIA GENERATING STATION - ISSUANCE OF AMENDMENT RE: REVISION TO TECHNICAL SPECIFICATION TABLES 3.3.5.1-1, 3.3.6.1-1 AND 3.3.6.2-1 - EMERGENCY CORE COOLING SYSTEM, PRIMARY AND SECONDARY CONTAINMENT ISOLATION INSTRUMENTATION (TAC NO. MA9889)

Dear Mr. Parrish:

The Commission has issued the enclosed Amendment No. 172 to Facility Operating License No. NPF-21 for the Columbia Generating Station (formerly known as WNP-2). The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated September 5, 2000, as supplemented by letter dated December 14, 2000.

The amendment will add notes to TS Tables 3.3.5.1-1, 3.3.6.1-1 and 3.3.6.2-1. The purpose of the proposed change is to identify instrument channels of the primary and secondary containment isolation logic that are included in more than one limiting condition for operation so that operators can determine the most restrictive action and completion time when a channel becomes inoperable or is placed in the tripped position

A copy of the related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

Sincerely,

J Cushing

Jack Cushing, Project Manager, Section 2
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-397

Enclosures: 1. Amendment No. 172 to NPF-21
2. Safety Evaluation

cc w/encls: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

ENERGY NORTHWEST

DOCKET NO. 50-397

COLUMBIA GENERATING STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 172
License No. NPF-21

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by Energy Northwest dated September 5, 2000, as supplemented by letter dated December 14, 2000, 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 rules and 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;

   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 attachment to this license amendment and paragraph 2.C.(2) of 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. 172 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. The license amendment is effective as of its date of issuance and shall be implemented within 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

L Raghavan

for Stephen Dembek, Chief, Section 2
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical Specifications

Date of Issuance: April 30, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 172

FACILITY OPERATING LICENSE NO. NPF-21

DOCKET NO. 50-397

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain vertical lines indicating the areas of change. The overleaf pages are provided to maintain document completeness.

REMOVE	INSERT
3.3.5.1-8	3.3.5.1-8
3.3.5.1-9	3.3.5.1-9
3.3.6.1-5	3.3.6.1-5
3.3.6.1-6	3.3.6.1-6
3.3.6.1-7	3.3.6.1-7
3.3.6.2-4	3.3.6.2-4

SURVEILLANCE REQUIREMENTS

----------NOTES----------

1. Refer to Table 3.3.5.1-1 to determine which SRs apply for each ECCS Function.

2. When a channel is placed in an inoperable status solely for performance of required Surveillances, entry into associated Conditions and Required Actions may be delayed as follows: (a) for up to 6 hours for Functions 3.c, 3.f, and 3.g; and (b) for up to 6 hours for Functions other than 3.c, 3.f, and 3.g provided the associated Function or the redundant Function maintains ECCS initiation capability.

SURVEILLANCE		FREQUENCY
SR 3.3.5.1.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.5.1.2	Perform CHANNEL FUNCTIONAL TEST.	92 days
SR 3.3.5.1.3	Perform CHANNEL CALIBRATION.	92 days
SR 3.3.5.1.4	Perform CHANNEL CALIBRATION.	18 months
SR 3.3.5.1.5	Perform CHANNEL CALIBRATION.	24 months
SR 3.3.5.1.6	Perform LOGIC SYSTEM FUNCTIONAL TEST.	24 months

Table 3.3.5.1-1 (page 1 of 4)
Emergency Core Cooling System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Low Pressure Coolant Injection-A (LPCI) and Low Pressure Core Spray (LPCS) Subsystems					
a. Reactor Vessel Water Level – Low Low Low, Level 1	1,2,3, $4^{(a)}$,$5^{(a)}$	$2^{(b)}$	B	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≥ -142.3 inches
b. Drywell Pressure – High	1,2,3	$2^{(b)}$	B	SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≤ 1.88 psig.
c. LPCS Pump Start – LOCA Time Delay Relay	1,2,3, $4^{(a)}$,$5^{(a)}$	$1^{(e)}$	C	SR 3.3.5.1.5 SR 3.3.5.1.6	≥ 8.53 seconds and ≤ 10.64 seconds
d. LPCI Pump A Start – LOCA Time Delay Relay	1,2,3, $4^{(a)}$,$5^{(a)}$	$1^{(e)}$	C	SR 3.3.5.1.5 SR 3.3.5.1.6	≥ 17.24 seconds and ≤ 21.53 seconds
e. LPCI Pump A Start – LOCA/LOOP Time Delay Relay	1,2,3, $4^{(a)}$,$5^{(a)}$	1	C	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.6	≥ 3.04 seconds and ≤ 6.00 seconds
f. Reactor Vessel Pressure – Low (Injection Permissive)	1,2,3	1 per valve	C	SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≥ 448 psig and ≤ 492 psig
	$4^{(a)}$,$5^{(a)}$	1 per valve	B	SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≥ 448 psig and ≤ 492 psig
g. LPCS Pump Discharge Flow – Low (Minimum Flow)	1,2,3, $4^{(a)}$,$5^{(a)}$	1	E	SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≥ 668 gpm and ≤ 1067 gpm
h. LPCI Pump A Discharge Flow – Low (Minimum Flow)	1,2,3, $4^{(a)}$,$5^{(a)}$	1	E	SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≥ 605 gpm and ≤ 984 gpm
Manual Initiation	1,2,3, $4^{(a)}$,$5^{(a)}$	2	C	SR 3.3.5.1.6	NA

(continued)

(a) When associated subsystem(s) are required to be OPERABLE.

(b) Also required to initiate the associated diesel generator (DG).

(e) Also supports OPERABILITY of 230 kV offsite power circuit pursuant to LCO 3.8.1 and LCO 3.8.2

Table 3.3.5.1-1 (page 2 of 4)
Emergency Core Cooling System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
2. LPCI B and LPCI C Subsystems					
a. Reactor Vessel Water Level – Low Low Low, Level 1	1,2,3, 4(a),5(a)	2(b)	B	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≥ -142.3 inches
b. Drywell Pressure – High	1,2,3	2(b)	B	SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≤ 1.88 psig
c. LPCI Pump B Start – LOCA Time Delay Relay	1,2,3, 4(a),5(a)	1(e)	C	SR 3.3.5.1.5 SR 3.3.5.1.6	≥ 17.24 seconds and ≤ 21.53 seconds
d. LPCI Pump C Start – LOCA Time Delay Relay	1,2,3, 4(a),5(a)	1(e)	C	SR 3.3.5.1.5 SR 3.3.5.1.6	≥ 8.53 seconds and ≤ 10.64 seconds
e. LPCI Pump B Start – LOCA/LOOP Time Delay Relay	1,2,3, 4(a),5(a)	1	C	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.6	≥ 3.04 seconds and ≤ 6.00 seconds
f. Reactor Vessel Pressure – Low (Injection Permissive)	1,2,3	1 per valve	C	SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≥ 448 psig and ≤ 492 psig
	4(a),5(a)	1 per valve	B	SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≥ 448 psig and ≤ 492 psig
g. LPCI Pumps B & C Discharge Flow – Low (Minimum Flow)	1,2,3, 4(a),5(a)	1 per pump	E	SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≥ 605 gpm and ≤ 984 gpm
h. Manual Initiation	1,2,3, 4(a),5(a)	2	C	SR 3.3.5.1.6	NA
3. High Pressure Core Spray (HPCS) System					
a. Reactor Vessel Water Level – Low Low, Level 2	1,2,3, 4(a),5(a)	4(b)	B	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≥ -58 inches

(continued)

(a) When associated subsystem(s) are required to be OPERABLE.

(b) Also required to initiate the associated DG.

(e) Also supports OPERABILITY of 230 kV offsite power circuit pursuant to LCO 3.8.1 and LCO 3.8.2

Table 3.3.5.1-1 (page 3 of 4)
Emergency Core Cooling System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER FUNCTION	CONDITIONS REFERENCED FROM REQUIRED ACTION A.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
3. HPCS System (continued)					
b. Drywell Pressure – High	1,2,3	4[b]	B	SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≤ 1.88 psig
c. Reactor Vessel Water Level – High, Level 8	1,2,3, 4[a],5[a]	2	C	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≤ 56.0 inches
d. Condensate Storage Tank Level – Low	1,2,3, 4[c],5[c]	2	D	SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≥ 448 ft 1 inch elevation
e. Suppression Pool Water Level – High	1,2,3	2	D	SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≤ 466 ft 11 inches elevation
f. HPCS System Flow Rate – Low (Minimum Flow)	1,2,3, 4[a],5[a]	1	E	SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≥ 1200 gpm and ≤ 1512 gpm
g. Manual Initiation	1,2,3, 4[a],5[a]	2	C	SR 3.3.5.1.6	NA
4. Automatic Depressurization System (ADS) Trip System A					
a. Reactor Vessel Water Level – Low Low Low, Level 1	1,2[d],3[d]	2	F	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≥ -142.3 inches
b. ADS Initiation Timer	1,2[d],3[d]	1	G	SR 3.3.5.1.2 SR 3.3.5.1.3 SR 3.3.5.1.6	≤ 115.0 seconds
c. Reactor Vessel Water Level – Low, Level 3 (Permissive)	1,2[d],3[d]	1	F	SR 3.3.5.1.1 SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≥ 9.5 inches
d. LPCS Pump Discharge Pressure – High	1,2[d],3[d]	2	G	SR 3.3.5.1.2 SR 3.3.5.1.4 SR 3.3.5.1.6	≥ 119 psig and ≤ 171 psig

(continued)

(a) When associated subsystem(s) are required to be OPERABLE.

(b) Also required to initiate the associated DG.

(c) When HPCS is OPERABLE for compliance with LCO 3.5.2, "ECCS – Shutdown," and aligned to the condensate storage tank while tank water level is not within the limit of SR 3.5.2.2.

(d) With reactor steam dome pressure > 150 psig.

Table 3.3.6.1-1 (page 1 of 4)
Primary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION C.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Main Steam Line Isolation					
a. Reactor Vessel Water Level – Low Low, Level 2	1,2,3	2	D	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6 SR 3.3.6.1.7	≥ -58 inches
b. Main Steam Line Pressure – Low	1	2	E	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6 SR 3.3.6.1.7	≥ 804 psig
c. Main Steam Line Flow – High	1,2,3	2 per MSL	D	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6 SR 3.3.6.1.7	≤ 124.4 psid
d. Condenser Vacuum – Low	1,2[a], 3[a]	2	D	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≥ 7.2 inches Hg vacuum
e. Main Steam Tunnel Temperature – High	1,2,3	2	D	SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 170°F
f. Main Steam Tunnel Differential Temperature – High	1,2,3	2	D	SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 90°F
g. Manual Initiation	1,2,3	4	G	SR 3.3.6.1.6	NA
2. Primary Containment Isolation					
a. Reactor Vessel Water Level – Low, Level 3	1,2,3	2	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≥ 9.5 inches
b. Reactor Vessel Water Level – Low Low, Level 2	1,2,3	2[e]	H	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≥ -58 inches
c. Drywell Pressure – High	1,2,3	2[e]	H	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 1.88 psig

(continued)

(a) With any turbine throttle valve not closed.

(e) Also required to initiate the associated LOCA Time Delay Relay Function pursuant to LCO 3.3.5.1.

Table 3.3.6.1-1 (page 2 of 4)
Primary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION C.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
2. Primary Containment Isolation (continued)					
d. Reactor Building Vent Exhaust Plenum Radiation – High	1,2,3	2	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 16.0 mR/hr
e. Manual Initiation	1,2,3	4	G	SR 3.3.6.1.6	NA
3. Reactor Core Isolation Cooling (RCIC) System Isolation					
a. RCIC Steam Line Flow – High	1,2,3	1	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 250 inches wg
b. RCIC Steam Line Flow – Time Delay	1,2,3	1	F	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 3.00 seconds
c. RCIC Steam Supply Pressure – Low	1,2,3	2	F	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≥ 61 psig
d. RCIC Turbine Exhaust Diaphragm Pressure – High	1,2,3	2	F	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 20 psig
e. RCIC Equipment Room Area Temperature – High	1,2,3	1	F	SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 180°F
f. RCIC Equipment Room Area Differential Temperature – High	1,2,3	1	F	SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 60°F
g. RWCU/RCIC Steam Line Routing Area Temperature – High	1,2,3	1	F	SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 180°F
h. Manual Initiation	1,2,3	1[(b)]	G	SR 3.3.6.1.6	NA
4. RWCU System Isolation					
a. Differential Flow – High	1,2,3	1	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.5 SR 3.3.6.1.6	≤ 67.4 gpm

(continued)

(b) RCIC Manual Initiation only inputs into one of the two trip systems.

Table 3.3.6.1-1 (page 3 of 4)
Primary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION C.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
4. RWCU System Isolation (continued)					
b. Differential Flow – Time Delay	1,2,3	1	F	SR 3.3.6.1.2 SR 3.3.6.1.5 SR 3.3.6.1.6	≤ 46.5 seconds
c. Blowdown Flow – High	1,2,3	1	F	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.5 SR 3.3.6.1.6 SR 3.3.6.1.7	≤ 271.7 gpm
d. Heat Exchanger Room Area Temperature – High	1,2,3	1	F	SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 160°F
e. Heat Exchanger Room Area Ventilation Differential Temperature – High	1,2,3	1	F	SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 70°F
f. Pump Room Area Temperature – High	1,2,3	1 per room	F	SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 180°F
g. Pump Room Area Ventilation Differential Temperature – High	1,2,3	1 per room	F	SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 100°F
h. RWCU/RCIC Line Routing Area Temperature – High	1,2,3	1	F	SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 180°F
i. RWCU Line Routing Area Temperature – High	1,2,3	1 per room	F	SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6	
Room 409, 509 Areas					≤ 175°F
Room 408, 511 Areas					≤ 180°F
j. Reactor Vessel Water Level – Low Low, Level 2	1,2,3	2	F	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≥ -58 inches
k. SLC System Initiation	1,2	2[c]	I	SR 3.3.6.1.6	NA
l. Manual Initiation	1,2,3	2	G	SR 3.3.6.1.6	NA

(continued)

(c) SLC System Initiation only inputs into one of the two trip systems.

Table 3.3.6.1-1 (page 4 of 4)
Primary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	CONDITIONS REFERENCED FROM REQUIRED ACTION C.1	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
5. RHR SDC System Isolation					
a. Pump Room Area Temperature – High	3	1 per room	F	SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 150°F
b. Pump Room Area Ventilation Differential Temperature – High	3	1 per room	F	SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 70°F
c. Heat Exchanger Area Temperature – High	3	1 per room	F	SR 3.3.6.1.3 SR 3.3.6.1.4 SR 3.3.6.1.6	
Room 505 Area					≤ 140°F
Room 507 Area					≤ 160°F
Room 605 Area					≤ 150°F
Room 606 Area					≤ 140°F
d. Reactor Vessel Water Level – Low, Level 3	3,4,5	2[d]	J	SR 3.3.6.1.1 SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≥ 9.5 inches
e. Reactor Vessel Pressure – High	1,2,3	1	F	SR 3.3.6.1.2 SR 3.3.6.1.4 SR 3.3.6.1.6	≤ 135 psig
f. Manual Initiation	1,2,3	2	G	SR 3.3.6.1.6	NA

(d) Only one trip system required in MODES 4 and 5 with RHR Shutdown Cooling System integrity maintained.

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.6.2.2	Perform CHANNEL FUNCTIONAL TEST.	92 days
SR 3.3.6.2.3	Perform CHANNEL CALIBRATION.	18 months
SR 3.3.6.2.4	Perform LOGIC SYSTEM FUNCTIONAL TEST.	24 months

Table 3.3.6.2-1 (page 1 of 1)
Secondary Containment Isolation Instrumentation

FUNCTION	APPLICABLE MODES AND OTHER SPECIFIED CONDITIONS	REQUIRED CHANNELS PER TRIP SYSTEM	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Reactor Vessel Water Level – Low Low, Level 2	1,2,3,(a)	2[c]	SR 3.3.6.2.2 SR 3.3.6.2.3 SR 3.3.6.2.4	≥ -58 inches
2. Drywell Pressure – High	1,2,3	2[c]	SR 3.3.6.2.2 SR 3.3.6.2.3 SR 3.3.6.2.4	≤ 1.88 psig
3. Reactor Building Vent Exhaust Plenum Radiation – High	1,2,3, (a),(b)	2	SR 3.3.6.2.1 SR 3.3.6.2.2 SR 3.3.6.2.3 SR 3.3.6.2.4	≤ 16.0 mR/hr
4. Manual Initiation	1,2,3, (a),(b)	4	SR 3.3.6.2.4	NA

(a) During operations with a potential for draining the reactor vessel.

(b) During CORE ALTERATIONS, and during movement of irradiated fuel assemblies in the secondary containment.

(c) Also required to initiate the associated LOCA Time Delay Relay Funciton pursuant to LCO 3.3.5.1.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 172 TO FACILITY OPERATING LICENSE NO. NPF-21

ENERGY NORTHWEST

COLUMBIA GENERATING STATION

DOCKET NO. 50-397

1.0 INTRODUCTION

By application dated September 5, 2000, as supplemented by letter dated December 14, 2000, Energy Northwest (the licensee) requested changes to the Technical Specifications (Appendix A to Facility Operating License No. NPF-21) for the Columbia Generating Station (formerly known as WNP-2). The proposed amendment will add notes to Technical Specification (TS) Tables 3.3.5.1-1, Emergency Core Cooling System (ECCS) Instrumentation; 3.3.6.1-1, Primary Containment Isolation Instrumentation; and 3.3.6.2-1, Secondary Containment Isolation Instrumentation. The purpose of the notes is to identify instrument channels of the primary and secondary containment isolation logic that are included in more than one limiting condition of operation (LCO), so that operators will determine the most restrictive action and completion times when such a channel becomes inoperable or is placed in the tripped condition.

The staff requested additional information to support its review by letter dated October 31, 2000. The licensee responded to staff's request by letter dated December 14, 2000. The December 14, 2000, supplemental letter provided clarifying information, did not expand the scope of the application as originally noticed and did not change the staff's original proposed no significant hazards consideration determination published in the *Federal Register* on November 15, 2000 (65 FR 69059).

2.0 BACKGROUND

Time delay relays (TDRs) are installed in the emergency core cooling system (ECCS) pump starting circuits to sequence closure of the pump circuit breaker. This feature prevents simultaneous starting of the low pressure ECCS pumps and high pressure core spray (HPCS) pumps, which would result in undesirable voltage transients on 4.16 kV emergency supply buses and on 230 kV offsite power transformers when power is being supplied from the offsite source. Such a transient would present unnecessary challenges to the onsite AC electrical power supply systems and to the normal 230 kV transformer and connected circuitry. Thus, the TDRs installed in the ECCS pump circuits support operability of the normal 230 kV AC power circuit.

Since the TDRs affect multiple LCOs, the licensee believes that identifying such instrument channels would lead operators to the most restrictive action and completion times.

The proposed changes are requested in accordance with the Code of Federal Regulations (CFR) Title 10, Sections 2.101, 50.59, and 50.90 to assure continued compliance with 10 CFR Part 50, Appendix A, General Design Criteria 17, "Electric Power Systems."

3.0 PROPOSED TS CHANGES

1. Add superscript "(e)" to Table 3.3.5.1-1, "Emergency Core Cooling System Instrumentation," Functions 1c and 1d in the column entitled "Required Channels Per Function," indicating the applicability of the new footnote which reads as follows:

   (e) Also supports OPERABILITY of 230 kV offsite power circuit pursuant to LCO 3.8.1 and LCO 3.8.2.

2. Add superscript "(e)" to Table 3.3.5.1-1, "Emergency Core Cooling System Instrumentation," Functions 2c and 2d in the column entitled "Required Channels Per Function," indicating the applicability of the new footnote which reads as follows:

   (e) Also supports OPERABILITY of 230 kV offsite power circuit pursuant to LCO 3.8.1 and LCO 3.8.2.

3. Add superscript "(e)" to Table 3.3.6.1-1, "Primary Containment Isolation Instrumentation," in Functions 2b and 2c, in the column entitled "Required Channels Per Trip System," indicating the applicability of the new footnote which reads as follows:

   (e) Also required to initiate the associated LOCA Time Delay Function pursuant to LCO 3.3.5.1.

4. Add superscript "(c)" to Table 3.3.6.2-1, "Secondary Containment Isolation Instrumentation," in Functions 1 and 2, in the column entitled "Required Channels Per Trip System," indicating the applicability of the new footnote which reads as follows:

   (c) Also required to initiate the associated LOCA Time Delay Function pursuant to LCO 3.3.5.1.

4.0 EVALUATION

Each of the Division 1 and 2 trains' low pressure ECCS pump-start designs contain a TDR relay channel initiated by a drywell pressure-high or a reactor vessel water-low, level 2 sensor contact in series, together with other logic associated with electrical system relay and circuit breaker position. The design is such that actuation of any one of the sensors results in providing an actuation signal to the TDR channels for both low-pressure ECCS pumps in the same electrical division.

In the event drywell pressure-high or a reactor vessel water-low low, level 2 sensor was spuriously actuated, or was placed in the trip condition as required by any of the affected TS (in the case of an inoperable instrument), both loss-of-coolant accident (LOCA) channels in the division would receive an actuation signal. When power is aligned to the 230 kV offsite power

source, the time delay will start and time-out, setting up the logic for simultaneous starts upon receipt of a LOCA signal. Since the actual start of the low pressure pumps is dependent on LOCA signals that originate in other branches of the instrumentation system, neither low pressure ECCS pumps would start immediately. However, if a drywell pressure high signal (from other instrumentation) was received after the sequenced TDRs had both timed-out, both low pressure ECCS pumps in that electrical division would start at approximately the same time as the HPCS pump. Likewise, if a LOCA caused a rapid decrease in reactor vessel water level, the level-1 LOCA signal could be initiated closely following the level-2 signal causing a similar multiple pump start condition. This would result in significant voltage transient on the 230 kV offsite power transformer. Since the TDRs support OPERABILITY of the normal 230 kV offsite power circuit, the licensee has proposed to add notes to Functions 1c, 1d, 2c and 2d of Table 3.3.5.1-1 to indicate that these TDRs also support OPERABILITY of 230 kV offsite power source pursuant to LCO 3.8.1 and LCO 3.8.2.

In a RAI dated October 31, 2000, the staff asked the licensee if there were other safety-related pumps (other than low pressure ECCS pumps) that were prevented from starting simultaneously by time delay relays in their start circuitry and which provide signal to pump breakers in a set sequence to prevent undesirable voltage transient on the 230 kV offsite power source, and if there were such safety-related pumps then why these timers were not included in the plant TSs.

In a letter dated December 14, 2000, the licensee provided the requested information. The licensee states that there are no other safety-related pumps that are prevented from starting by TDR whose failure would result in overloading of the 230 kV power source. However, there are two other pumps that are provided with TDR in their circuitry which provide a closing signal to the pump breakers in a set sequence to prevent undesirable transient on the 230 kV offsite power source. These pumps are service water (SW) pumps for electrical divisions 1 and 2. The licensee pointed out that if TDR of one of the SW pumps was to become inoperable and tripped (i.e., the TDR fails in the breaker close permissive position) in conjunction with small break LOCA, as many as four pumps could start simultaneously on the 230 kV offsite power source. However, the licensee states that its analysis indicates that even with four pumps starting simultaneously on the 230 kV offsite power source, the resulting voltages at each pump motor's terminal would be greater than the specified minimum 80 percent of the motor rated voltage. Hence, even with four pumps starting simultaneously due to an inoperable TDR, the 230 kV power source will remain available to supply the ECCS and SW pumps during all design basis events. Therefore, it is not necessary to include these TDRs in the TS. The above satisfies the staff's concern and is acceptable.

In addition to the above, the primary and secondary containment isolation channels specified in Table 3.3.6.1-1 (Functions 2b and 2c) and in Table 3.3.6.2-1 (Functions 1 and 2) initiate the LOCA TDR specified in Table 3.3.5.1-1 (Functions 1c, 1d, 2c, and 2d). Since these drywell pressure and reactor level 2 signals are used in several functions governed by multiple TS, the licensee has proposed to add the notes to the above functions to indicate that these signals are also required to initiate the associated LOCA time delay relay function pursuant to LCO 3.3.5.1.

The licensee states that identifying instrument channels which affect multiple LCOs will help operators to be able to determine the most restrictive action and completion time out of all applicable LCOs, when a channel becomes inoperable or is placed in the tripped condition. In

addition, the licensee states that the proposed changes remove confusion and ensures that operators will implement the most restrictive action in the event a channel becomes inoperable and or place in a tripped state.

On the basis of its evaluation, the staff agrees with the licensee's conclusions that the addition of branching notes to Tables 3.3.5.1-1, 3.3.6.1-1 and 3.3.6.2-1 would help operators to be able to determine the most restrictive action and completion time out of all applicable LCOs when a channel becomes inoperable or is placed in the tripped condition. The staff concludes that the proposed changes will assure continued compliance with the requirements of General Design Criteria 17 and are acceptable.

5.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Washington State official was notified of the proposed issuance of the amendment. The State official had no comments.

6.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes surveillance requirements. The NRC staff has determined that the 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 the amendment involves no significant hazards consideration, and there has been no public comment on such finding (65 FR 69059). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 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 the amendment.

7.0 CONCLUSION

The Commission has 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, (2) such activities will be conducted in compliance with the Commission's regulations, and, (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: O. Chopra

Date: April 30, 2001

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April 30, 2001

Mr. J. V. Parrish
Chief Executive Officer
Energy Northwest
P.O. Box 968 (Mail Drop 1023)
Richland, WA 99352-0968

SUBJECT: COLUMBIA GENERATING STATION - ISSUANCE OF AMENDMENT RE: REVISION TO TECHNICAL SPECIFICATION TABLES 3.3.5.1-1, 3.3.6.1-1 AND 3.3.6.2-1 - EMERGENCY CORE COOLING SYSTEM, PRIMARY AND SECONDARY CONTAINMENT ISOLATION INSTRUMENTATION (TAC NO. MA9889)

Dear Mr. Parrish:

The Commission has issued the enclosed Amendment No. 172 to Facility Operating License No. NPF-21 for the Columbia Generating Station (formerly known as WNP-2). The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated September 5, 2000, as supplemented by letter dated December 14, 2000.

The amendment will add notes to TS Tables 3.3.5.1-1, 3.3.6.1-1 and 3.3.6.2-1. The purpose of the proposed change is to identify instrument channels of the primary and secondary containment isolation logic that are included in more than one limiting condition for operation so that operators can determine the most restrictive action and completion time when a channel becomes inoperable or is placed in the tripped position

A copy of the related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

Sincerely,
/RA/
Jack Cushing, Project Manager, Section 2
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-397

Enclosures: 1. Amendment No. 172 to NPF-21
2. Safety Evaluation

cc w/encls: See next page

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