

September 15, 2000

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

SUBJECT: WNP-2 - ISSUANCE OF AMENDMENT RE: TECHNICAL SPECIFICATIONS  
3.3.1.1.10 AND 3.3.4.1.2.a (TAC NO. MA8940)

Dear Mr. Parrish:

The Commission has issued the enclosed Amendment No. 168 to Facility Operating License No. NPF-21 for WNP-2. The amendment consists of changes to the Technical Specifications (TS) in response to your application dated April 13, 2000, as supplemented by letter dated May 15, 2000.

The amendment revised Surveillance Requirement (SR) 3.3.1.1.10 for Function 8 of Table 3.3.1.1-1 and SR 3.3.4.1.2.a for the reactor protection system and end of cycle recirculation pump trip instrumentation. The amendment extends the frequency of these surveillance requirements from 18 months to 24 months.

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.168 to NPF-21  
2. Safety Evaluation

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WNP-2

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

ENERGY NORTHWEST

DOCKET NO. 50-397

WNP-2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 168  
License No. NPF-21

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Energy Northwest dated April 13, 2000, as supplemented by letter dated May 15, 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. 168 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



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: September 15, 2000

ATTACHMENT TO LICENSE AMENDMENT NO. 168

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.

REMOVE

3.3.4.1-3

3.3.4.1-4

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INSERT

3.3.4.1-3

3.3.4.1-4

3.3.4.1-5

SURVEILLANCE REQUIREMENTS

-----NOTE-----  
 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 for up to 6 hours provided the associated Function maintains EOC-RPT trip capability.  
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SURVEILLANCE	FREQUENCY
SR 3.3.4.1.1 Perform CHANNEL FUNCTIONAL TEST.	92 days
SR 3.3.4.1.2.a Perform CHANNEL CALIBRATION. The Allowable Value shall be:  TTV - Closure: $\leq$ 7% closed.	24 months
SR 3.3.4.1.2.b Perform CHANNEL CALIBRATION. The Allowable Value shall be:  TGV Fast Closure, Trip Oil Pressure - Low: $\geq$ 1000 psig.	18 months
SR 3.3.4.1.3 Verify TTV - Closure and TGV Fast Closure, Trip Oil Pressure - Low Functions are not bypassed when THERMAL POWER is $\geq$ 30% RTP.	18 months
SR 3.3.4.1.4 Perform LOGIC SYSTEM FUNCTIONAL TEST, including breaker actuation.	24 months

(continued)

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.3.4.1.5	<p>-----NOTE-----                      Breaker arc suppression time may be assumed from the most recent performance of SR 3.3.4.1.6.                      -----</p> <p>Verify the EOC-RPT SYSTEM RESPONSE TIME is within limits.</p>	24 months on a STAGGERED TEST BASIS
SR 3.3.4.1.6	Determine RPT breaker arc suppression time.	60 months

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
<p>SR 3.3.1.1.10 -----NOTES-----            1. Neutron detectors are excluded.            2. For Function 1, not required to be performed when entering MODE 2 from MODE 1 until 12 hours after entering MODE 2.            -----            Perform CHANNEL CALIBRATION.</p>	<p>18 months for Functions 1 through 7 and 9 through 11   <u>AND</u>            24 months for Function 8</p>
<p>SR 3.3.1.1.11 Verify the APRM Flow Biased Simulated Thermal Power-High Function time constant is <math>\leq 7</math> seconds.</p>	<p>18 months</p>
<p>SR 3.3.1.1.12 Verify Turbine Throttle Valve-Closure, and Turbine Governor Valve Fast Closure Trip Oil Pressure-Low Functions are not bypassed when THERMAL POWER is <math>\geq 30\%</math> RTP.</p>	<p>18 months</p>
<p>SR 3.3.1.1.13 Perform CHANNEL FUNCTIONAL TEST.</p>	<p>24 months</p>
<p>SR 3.3.1.1.14 Perform LOGIC SYSTEM FUNCTIONAL TEST.</p>	<p>24 months</p>

(continued)



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 168 TO FACILITY OPERATING LICENSE NO. NPF-21

ENERGY NORTHWEST

WNP-2

DOCKET NO. 50-397

1.0 INTRODUCTION

By letter dated April 13, 2000, as supplemented by letter dated May 15, 2000, Energy Northwest proposed changes to the WNP-2 Technical Specifications Surveillance Requirement (SR) 3.3.1.1.10 for Function 8 of Table 3.3.1.1-1 and SR 3.3.4.1.2.a for reactor protection system (RPS) and end of cycle recirculation pump trip (EOC RPT) instrumentation. The proposed amendment would extend the frequency of these surveillance requirements from 18 months to 24 months.

The May 15, 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 June 14, 2000 (65 FR 37423).

2.0 BACKGROUND

Energy Northwest requested a change to the WNP-2 technical specifications (TSs) in accordance with 10 CFR Parts 50.59, 50.90, and 2.101. This TS change request was submitted to support Energy Northwest's intention to implement a 24-month refueling cycle at WNP-2. The proposed extension of TS SR 3.3.1.1.10 for Function 8 of Table 3.3.1.1-1 and SR 3.3.4.1.2.a for RPS and EOC RPT instrumentation from 18 months to 24 months is discussed below.

Improved reactor fuels allow licensees to consider an increase in the duration of the fuel cycle for their facilities. The NRC staff has reviewed requests for individual plants to modify TS surveillance intervals to be compatible with a 24-month fuel cycle. Generic Letter (GL) 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle," was issued on April 2, 1991, providing generic guidance to the licensees for preparing such license amendment requests. By following the GL 91-04 guidance, surveillance interval TS would be revised to require performance of instrument surveillance testing on a refueling interval. Additionally, the TS provision to extend surveillances by 25 percent of the specified interval would extend the time limit for completing these surveillances from the proposed 24 months to a maximum of 30 months. GL 91-04 includes guidance to evaluate the effect on safety for an increase in surveillance intervals to accommodate a 24-month fuel cycle. This

evaluation should support a conclusion that the effect on safety is small, and the historical maintenance and surveillance data do not invalidate this conclusion.

### 3.0 EVALUATION

SR 3.3.1.1.10 Function 8 and SR 3.3.4.1.2.a require channel calibration of the turbine throttle valve (TTV) position sensing switches that actuate the reactor protection system and the end of cycle recirculation pump trip logic. The TTVs act as turbine stop valves when the main turbine is at rated speed. Closure of the TTVs results in the loss of the main turbine as a heat sink producing reactor pressure, neutron flux, and heat transients. The RPS is actuated and the EOC RPT is initiated upon TTV closure to mitigate these transients and terminate forced jet pump flow.

The licensee is proposing to extend the surveillance interval for SR 3.3.1.1.10 Function 8 and SR 3.3.4.1.2.a from 18 months to 24 months. The NRC staff reviewed the licensee's April 13, 2000, submittal to evaluate the licensee's justification for the proposed changes. The limit switches that sense turbine throttle valve (TTV) closures are passive bi-state devices and are not subject to instrument drift. The limit switches' physical positions are fixed in relation to the TTV stem. Movement of the TTV stem actuates the limit switches. The limit switches are common to the logic for both the RPS and EOC RPT functions.

In GL 91-04, the staff provided three criteria to licensees to evaluate instrumentation that is not susceptible to instrument drift. The criteria are:

1. The evaluation for the surveillance interval extension to 24 months should conclude that the effect on safety is small.
2. Licensees should confirm that historical plant maintenance and surveillance data support the conclusion that the effect of the surveillance interval extension is small.
3. Licensees should confirm that performance of the extended surveillance at the bounding 30 month interval allowed by SR 3.0.2 does not invalidate any assumptions in the plant licensing basis.

The licensee stated that the impact on plant safety of the surveillance interval extension is small. The basis for this determination is that both the RPS and EOC RPT actuate on closure of the turbine trip throttle valves and employ redundant components so that no single component failure can prevent the trip function from occurring. In addition, the licensee performs a technical specification required quarterly functional test that will detect component failure and ensure that this component can fulfill its safety function.

The licensee analyzed the maintenance records and the 18-month channel calibration test results for the TTV position switches. The surveillance data for the last eight years indicates that no setpoint adjustments have been required. The maintenance records indicate that there was only one switch failure during the surveillance interval. The failure was not related to the surveillance interval.

The licensee reviewed WNP-2's licensing basis for each proposed surveillance interval extension. The review considered the bounding surveillance interval allowed by SR 3.0.2. No assumptions were found pertaining to the surveillance interval for the TTV closure function for RPS and EOC RPT logic. The licensee confirmed that no licensing basis changes other than those requested, are necessary to implement the requested SR interval changes and the WNP-2 licensing basis is not invalidated by the proposed changes.

The staff concludes the licensee has demonstrated that extending the SR interval for the TTV limit switches meets the three criteria established in GL 91-04. Therefore it is acceptable to extend the surveillance interval for SR 3.3.1.1.10, Function 8 of Table 3.3.1.1-1 and SR 3.3.4.1.2.a for reactor protection system and end of cycle recirculation pump trip instrumentation.

#### 4.0 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.

#### 5.0 ENVIRONMENTAL CONSIDERATION

The amendment 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 37423). 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.

#### 6.0 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: Jack Cushing

Date: September 15, 2000