

# CATEGORY 1

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 FACIL: 50-397 WPPSS Nuclear Project, Unit 2, Washington Public Power      05000397  
 AUTH. NAME      AUTHOR AFFILIATION  
 SCHILL, F.      Washington Public Power Supply System  
 BEMIS, P.R.      Washington Public Power Supply System  
 RECIP. NAME      RECIPIENT AFFILIATION

SUBJECT: LER 97-003-00: on 970320, notification of noncompliance w/TS  
 as TS SRs for response time testing were not being met for  
 specified instrumentation in RPS, PCIS & ECCS. Requested  
 enforcement discretion for one time exemption. W/970421 ltr.

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM

P.O. Box 968 • Richland, Washington 99352-0968

April 21, 1997  
GO2-97-076

Docket No. 50-397

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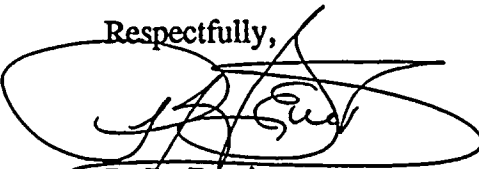
Gentlemen:

Subject: **NUCLEAR PLANT WNP-2, OPERATING LICENSE NPF-21,  
LICENSEE EVENT REPORT NO. 97-003-00**

Transmitted herewith is Licensee Event Report No. 97-003-00 for WNP-2. This report is submitted in response to the reporting requirements of 10 CFR 73(a)(2)(i)(B), and discusses the items of reportability, corrective action taken, and action taken to preclude recurrence.

Should you have any questions or desire additional information regarding this matter, please call me or Mr. DA Swank at (509) 377-4563.

Respectfully,

  
P. R. Bemis  
Vice President, Nuclear Operations  
Mail Drop PE23

Enclosure

cc: EW Merschoff, NRC RIV  
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# LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) <b>Washington Nuclear Plant - Unit 2</b>	DOCKET NUMBER (2) <b>0   5   0   0   0   3   9   7</b>	PAGE (3) <b>1</b> of <b>5</b>
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**TITLE (4) NOTIFICATION OF NONCOMPLIANCE WITH TECHNICAL SPECIFICATIONS**

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)					
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES			DOCKET NUMBER(S)		
<b>3</b>	<b>20</b>	<b>97</b>	<b>97</b>	<b>- 0   0   3</b>	<b>- 0   0</b>	<b>4</b>	<b>21</b>	<b>97</b>	<b>N/A</b>			<b>0   0   0   0   0</b>		

OPERATING MODE (9)	<b>1</b>	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR: (11)									
POWER LEVEL (10) <b>1   0   0</b>		<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.405c	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)						
		<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.38(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)						
		<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.38(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vi)	<input type="checkbox"/> OTHER (Specify in Abstract below and in Text, NRC Form 386A)						
		<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(vii)A							
		<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)B							
		<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)							

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
<b>Fred Schill, Licensing Engineer</b>		AREA CODE <b>509</b>	<b>377-2269</b>

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)											
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS		

SUPPLEMENTAL REPORT EXPECTED (14)	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
<input type="checkbox"/> YES (if yes, complete EXPECTED SUBMISSION DATE)	<input checked="" type="checkbox"/> NO			

**ABSTRACT (16)**

At 1645 on March 20, 1997, with the plant operating at 100% power, NRC staff notified the Supply System that WNP-2 Technical Specifications (TS) Surveillance Requirements (SRs) for Response Time Testing (RTT) were not being met for specified instrumentation in the Reactor Protection System, Primary Containment Isolation System, and Emergency Core Cooling System. WNP-2 declared the specified equipment inoperable and entered the applicable Technical Specification Action Statements (TSAS). This action required subsequent entry into LCO 3.0.3 necessitating initiation of a plant shutdown within 1 hour and placing the reactor mode switch in the startup position within 7 hours. At 1740 WNP-2 declared an unusual event based on entry into LCO 3.0.3 and initiated a power reduction required by the TS.

WNP-2 then requested enforcement discretion for a one-time exemption from the applicable Technical Specification SRs until April 18, 1997 or until the issuance of a license amendment changing the Technical Specifications.

At 2136 WNP-2 received verbal notification of enforcement discretion. The TSAS and LCO 3.0.3 were exited at this time. The unusual event was terminated at 2200 based on exit from LCO 3.0.3. The elapsed time the equipment was declared inoperable was 4 hrs 50 min.

The March 20 letter indicated the failure to meet the SRs was caused by an inconsistency between WNP-2's method of implementing Licensing Topical Report NEDO-32291 "System Analyses for Elimination of Response Time Testing Requirements" and WNP-2 Technical Specification SRs and RTT definitions. The Supply System's failure to clarify the staff's expectations before proceeding with implementation was also a cause.

# LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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## Event Description

At 1645 on March 20, 1997 with the plant operating at 100% power WNP-2 received correspondence from the NRC staff regarding their review of WNP-2 implementation of Boiling Water Reactor Owners Group (BWROG) Licensing Topical Report NEDO-32291. The letter concluded that WNP-2 Technical Specifications SRs for RTT were not being met because implementation of NEDO-32291 was not in accordance with WNP-2 TS. Actuation instrumentation and sensors within the Reactor Protection System, Primary Containment Isolation System, and Emergency Core Cooling System were identified in the letter as not having their response times demonstrated to be within specified limits.

Because SR 3.3.1.1.15, SR 3.3.5.1.7, and SR 3.3.6.1.7 were considered not to have been met WNP-2 declared the specified equipment inoperable and entered TSAS 3.3.1.1.A, 3.3.1.1.G, 3.3.5.1.B, 3.3.5.1.H, 3.5.1.H, 3.3.6.1.D.2.1 & 2, and 3.3.6.1.E. TSAS 3.5.1.H required subsequent entry into LCO 3.0.3 which necessitated initiation of a plant shutdown within 1 hour and placing the reactor mode switch in the startup position within 6 hours.

At 1740, WNP-2 declared an unusual event in accordance with Plant Procedure Manual (PPM) 13.1.1 based on entry into LCO 3.0.3 then initiated a TS required power reduction.

## Immediate Corrective Action

WNP-2 requested enforcement discretion for a one time exemption from TS SRs 3.3.1.1.15, 3.3.6.1.7, and 3.3.5.1.7 until April 18, 1997 or until approval of a license amendment request changing the TS, whichever occurred first.

At 2136 WNP-2 received verbal notification of enforcement discretion from the NRC based on the NRC determination that operating the plant while using qualitative methods to meet the SRs for response time verification involved minimal or no safety impact and had no adverse radiological impact on public health and safety. The above TSAS and LCO 3.0.3 were exited and the unusual event was terminated at 2200 based on exit from LCO 3.0.3.

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## Further Evaluation

In the March 20, 1997 NRC letter it was stated that the response time of certain functions had been assessed in a qualitative manner and instrument operability verification was performed in a manner which the NRC staff found acceptable. However, the equipment was categorized as having response times which had not been demonstrated to be within specified limits as required by the TS.

The methodology for performing certain RTT at WNP-2 is in accordance with the provisions of Licensing Topical Report NEDO-32291 and conditions delineated in the NRC's Safety Evaluation Report NEDO-32291-A which approved the adoption of NEDO-32291 for all boiling water reactor licensees. These documents prescribe a qualitative method for assessment of instrument loop response time. In this method, the response times of instrument loops are measured empirically while performing testing which actuates logic functions (e.g. channel functional testing or channel calibration). The test performer assesses the time from application of a test signal until a resultant actuation occurs. Then, based on training and experience, the individual makes a judgement about the acceptability of the observed response. Previous RTT methods consisted of connecting recording devices to sensors and actuation logic trains and quantitatively measuring total response time in a series of overlapping steps.

The NEDO document also contains the suggested process for licensees to amend their TS to accommodate changing from a quantitative to qualitative testing methodology. This process consists of modifying the tables which specify acceptance criteria for RTT SRs by replacing the appropriate time quantities with "N/A" and adding notations and footnotes.

The NRC letter of March 20, 1997 which prompted WNP-2 to enter LCO 3.0.3, was issued after many months of discussion between the NRC and WNP-2 regarding the implementation of NEDO-32291. The following sequence of events describe implementation of NEDO-32291 at WNP-2.

March 1992 -BWROG issued Licensing Topical Report NEDC-32013P regarding elimination of quantitative RTT for selected components. This document is an analysis of the qualitative RTT and describes the test method, components and safety functions upon which it is acceptable to be employed. It also provides the technical justification for converting to the qualitative method. Additionally, it provides licensees with examples of how to modify their Response Time Acceptance Criteria tables when transitioning from quantitative to qualitative RTT. In these examples the times for the selected functions are replaced with N/A.

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- Dec. 1993 - NRC issued Generic Letter (GL) 93-08, "Relocation of Technical Specification Tables of Instrument Response Time Limits. "This letter provided guidance for requesting a license amendment to relocate response time limit tables from the TS to the Final Safety Analysis Report (FSAR). The staff developed this guidance for a line-item improvement. The GL states in the discussion section that "This TS change also allows the licensee to administratively control changes to the response time limits for the RTS and ESFAS instruments in accordance with the provisions of 10CFR50.59 without the need to process a license amendment request." In addition to relocation of the tables this letter also provided guidance for amending the appropriate LCO's to modify the words "shall be operable with response times as shown in table XXX" to "shall be operable."
- Jan. 1994 - BWORG submitted NEDO-32291 to the NRC for review and approval. This report included the NEDO 32013P analysis.
- July 1994 - WNP-2 submitted a TS amendment request for relocation of TS tables for instrument response time limits in accordance with the guidance provided in GL 93-08. In the request WNP-2 stated "The relocated tables will be controlled as part of the FSAR. Changes to the FSAR and plant procedures are evaluated and controlled in accordance with 10CFR50.59."
- Dec. 1994 - The staff issued Safety Evaluation Report (SER) on NEDO-32291. The SER stated "the staff concludes that RTT can be eliminated from technical specifications for the selected instrumentation identified in the topical report and accepts NEDO-32291 for reference in license applications for all boiling water reactors..." This SER also discussed submittal of plant-specific license amendment requests and seven other programmatic requirements. The license amendment the SER referred to appeared to be the modified TS RTT tables from NEDC-32013P of March 1992 described above.
- June 1995 - The staff issued Amendment 139 to WNP-2 TS to relocate response time limit tables from the TS to the FSAR. The NRC's SER for this TS Amendment states "Relocation of the specific values of the required response times does not change the licensee's responsibility to evaluate any changes to response time requirements in accordance with the requirements of 10CFR50.59. If the licensee wanted to change any of the response times in the relocated table, the licensee would have to determine whether the change involved an unreviewed safety question."
- March 1996 - WNP-2 management approved Safety Evaluation (SE) 96-17 in accordance with the provisions of 10CFR50.59 to modify FSAR tables containing response time limit values in accordance with the example tables in the NEDO-32291, and to relocate them to the Licensee Controlled Specifications (LCS). SE 96-17 also addressed the additional requirements for implementing NEDO-32291 as described in the NRC's SER of December 1994.

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## Root Cause

The staff's March 20, 1997 letter was issued because Supply System management did not adequately assess the risk and future effects of implementing the NEDO-32291 changes via the 10CFR50.59 process. Prior to submitting the July 1994 TS amendment, the Supply System failed to take the opportunity to request clarification regarding the staff's expectations for submittals regarding NEDO-32291. Conflicting guidance in correspondence from the staff regarding RTT tables was a contributing cause.

## Further Corrective Actions

In a letter dated March 22, 1997 WNP-2 submitted a Request for Amendment, under exigent circumstances, to the WNP-2 operating license regarding Technical Specification RTT.

Guidance for Regulatory Affairs personnel will be enhanced to ensure NRC expectations regarding licensing document change processes are understood and considered when alternative methods for accomplishing changes are evaluated.

## Assessment of Safety Consequences

As stated in the staff's Notice of Enforcement Discretion letter dated March 24, 1997, "the continued performance of qualitative verification of instrument response does not constitute any adverse safety consequences."

The cause of this event is related solely to regulatory issues. All equipment declared inoperable was capable of performing the intended safety functions at all times.

## Previous Similar Events

No other events have occurred at WNP-2 that resulted in entry into LCO 3.0.3 and declaration of an unusual event due to licensing process issues.

## Energy Industry Identification System (EIIS) Codes

JC - Reactor Protection System  
 JM - Containment Control System  
 BM - Low Pressure Core Spray System  
 BO - Residual Heat Removal/Low Pressure Coolant Injection System  
 BG - High Pressure Core Spray System