NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Trojan Nuclear Plant	0 5 0 0 0 3 4 4	1 OF 0 3

TITLE (4)
NIS Power Range Rate Trip Setpoints Exceeded Allowable Values

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)
0 6	2 8	8 5	8 5	— 0 0 7	— 0 0	0 7	2 5	8 5	N/A	0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
POWER LEVEL (10)	0 0 0		20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)		
			20.405(a)(1)(i)		50.36(c)(1)	X	50.73(a)(2)(v)		73.71(c)		
			20.405(a)(1)(ii)		50.36(c)(2)		50.73(a)(2)(vii)		OTHER (Specify in Abstract below and in Text, NRC Form 366A)		
			20.405(a)(1)(iii)		50.73(a)(2)(i)		50.73(a)(2)(viii)(A)				
			20.405(a)(1)(iv)		50.73(a)(2)(ii)		50.73(a)(2)(viii)(B)				
			20.405(a)(1)(v)		50.73(a)(2)(iii)		50.73(a)(2)(x)				

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Scott A. Bauer, Onsite Regulation Engineer	AREA CODE 5 0 3 5 5 6 - 3 7 1 3

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	
N/A											

SUPPLEMENTAL REPORT EXPECTED (14)		EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On June 28, 1985 it was discovered, by reviewing Westinghouse Technical Bulletin NSID-TB-85-13, that an incorrect method was being utilized for setting the Nuclear Instrumentation System (NIS) power range positive and negative rate trips. The use of the incorrect method resulted in the rate trips being set higher than the Technical Specification Table 2.2-1 allowable value. The cause of the occurrence was an error in the calibration procedure due to a misinterpretation of the vendor technical manual. The calibration procedure has been corrected and the rate trip setpoints have been properly adjusted.

IE22
1/1

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Trojan Nuclear Plant	0 5 0 0 0 3 4 4	8 5	— 0 0 7	— 0 0	0 2 OF 0 3

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Description of Event

On June 28, 1985 a review of Westinghouse Technical Bulletin NSID-TB-85-13 was conducted and it was identified that an incorrect method for setting the (NIS) power range positive and negative rate trips had been in use since the plant began operation (December 1975). The use of the incorrect method resulted in the rate trips being set higher than the Technical Specification Table 2.2-1 allowable values. The error affected both trains of the reactor trip system such that a high negative or positive rate trip would not have been received at or below the maximum allowable trip value.

The error involved the Power Range Detector A test signal. This signal is used to create a step signal which is input to the Power Range Rate Circuit. The positive and negative rate trip bistables are aligned to trip on the spike value created at the output of the Power Range Rate Circuit due to the step signal input. The Nuclear Instrumentation System Technical Manual did not clearly state how to set the Power Range Detector A test signal. The manual was misinterpreted resulting in the magnitude of the test signal being doubled. The technical manual specified 5 power units which was interpreted to mean 5% power when in actuality 5 power units corresponds to 2.5% power. The doubling of the test signal caused an increase in the spike value at the output of the Power Range Rate Circuit thereby, resulting in higher negative and positive rate trip setpoints.

Cause of Occurrence

The rate trips were set incorrectly because the vendor technical manual was misinterpreted resulting in an error in the calibration procedure. The vendor technical manual was not explicit enough to prevent this misinterpretation. The Westinghouse Technical Bulletin was initiated because several plants had similarly misinterpreted the technical manual.

Corrective Action

Corrective action was taken to revise the calibration and surveillance procedures to clarify the correct method for setting and verifying the positive and negative rate trips. The positive and negative rate trips were correctly set prior to entry into Mode 2 for plant recovery from the 1985 refueling outage. The vendor technical manual will be revised to incorporate the clarification contained in the technical bulletin.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Trojan Nuclear Plant	0 5 0 0 0 3 4 4	8 5	— 0 0 7	— 0 0	0 3 OF 0 3

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Significance of Occurrence

The NIS power range positive rate trip provides protection against rapid flux increases characteristic of rod ejection events from any power level. The power range negative rate trip provides protection in the case of multiple dropped control rods. The incorrect setting of the power range positive and negative rate trips has no safety significance since no multiple rod drop or rod ejection accidents occurred during the period in which the trip setpoints were incorrectly set.

Portland General Electric Company
Trojan Nuclear Plant
P.O. Box 439
Rainier, Oregon 97048
(503) 556-3713

July 25, 1985
WSO-470-85

US Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Gentlemen:

Licensee Event Report No. 85-07 is attached.

Sincerely,

W. S. Orser
General Manager

WSO/SAB:pat

Attachment

c: Distribution
File 93.24a

IE22
1/1