



**NRC-00-018**

**Wisconsin Public Service Corporation**  
(a subsidiary of WPS Resources Corporation)  
Kewaunee Nuclear Power Plant  
North 490, Highway 42  
Kewaunee, WI 54216-9511  
920-388-2560

March 1, 2000

**10 CFR 50.46**

**U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555**

Ladies/Gentlemen:

Docket 50-305  
Operating License DPR-43  
Kewaunee Nuclear Power Plant  
1999 Annual Operating Report

Enclosed is the 1999 Kewaunee Nuclear Power Plant (KNPP) Annual Operating Report. This report is being submitted in accordance with Section 6.9.a.2 of the KNPP Technical Specifications.

This submittal of the 1999 KNPP Annual Operating Report also satisfies the reporting requirements of 10 CFR 50.46(a)(3)(ii) (Emergency Core Cooling System evaluation model changes), and KNPP Technical Specification 4.2.b.7.b (steam generator inspection). Also, in accordance with the commitment made by WPSC upon NRC issuance of the turbine valve test frequency Technical Specification amendment, any turbine stop and control valve failures are described.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark L. Marchi".

for,  
Mark L. Marchi  
Vice President-Nuclear

DAK

Enc.

cc - US NRC - Region III  
US NRC Senior Resident Inspector  
INPO Records Center  
REIRS Project Manager, US NRC

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## TABLE OF CONTENTS

INTRODUCTION.....	ii
1.0 CHALLENGES TO AND FAILURES OF PRESSURIZER SAFETY AND RELIEF VALVES.....	1-1
2.0 SUMMARY OF THE STEAM GENERATOR EDDY CURRENT EXAMINATION.....	2-1
3.0 PERSONNEL EXPOSURE AND MONITORING REPORT.....	3-1
TABLE 3.1.....	3-2
TABLE 3.2.....	3-3
4.0 CHANGES IN THE EMERGENCY CORE COOLING SYSTEM MODEL.	4-1
5.0 FAILURES OF TURBINE STOP AND CONTROL VALVES.....	5-1
6.0 MAXIMUM COOLANT ACTIVITY.....	6-1

## **INTRODUCTION**

This annual operating report is being submitted to fulfill several reporting requirements contained either in the Kewaunee Nuclear Power Plant (KNPP) Technical Specifications (TS) or in other commitments made by Wisconsin Public Service Corporation (WPSC) to the Nuclear Regulatory Commission (NRC).

In response to NUREG-0737, Item II.K.3.3, and in accordance with KNPP Technical Specification (TS) 6.9.a.2.C, Section 1.0 reports challenges to and failures of pressurizer safety and relief valves, if applicable.

Section 2.0 provides a summary of the steam generator eddy current examination in accordance with KNPP TS 4.2.b.7.b.

Personnel exposure and monitoring data is provided in Section 3.0 per Regulatory Guide 1.16, Section C.1.b.(3), and KNPP TS 6.9.a.2.B.

The provisions of 10 CFR 50.46 require the reporting of corrections or changes to the Emergency Core Cooling System (ECCS) evaluation models that are approved for use in performing the loss-of-coolant accident (LOCA) safety analysis. This information, if applicable, is provided in Section 4.0.

Section 5.0 reports failures of turbine stop and control valves, if applicable, in accordance with a commitment made to the NRC upon approval of KNPP TS Amendment 84.

Section 6.0, in accordance with KNPP TS 6.9.a.2.D, contains documentation of the results of specific analysis in which the reactor coolant exceeded the limits of KNPP TS 3.1.c.1.A, if applicable.

## **1.0 CHALLENGES TO AND FAILURES OF PRESSURIZER SAFETY AND RELIEF VALVES**

In response to NUREG-0737, item II.K.3.3, and in accordance with KNPP Technical Specification 6.9.a.2.C, WPSC is committed to reporting challenges to and failures of pressurizer safety and pressurizer power-operated relief valves. There were no challenges to or failures of pressurizer safety or pressurizer power-operated relief valves during 1999.

## **2.0 SUMMARY OF THE 1999 STEAM GENERATOR EDDY CURRENT EXAMINATIONS**

1999 was a non-outage year for the Kewaunee Nuclear Power Plant (KNPP). Therefore, no steam generator examinations were performed. The next KNPP steam generator examination is scheduled for April 2000.

### **3.0 PERSONNEL EXPOSURE AND MONITORING REPORT**

Table 3.1 presents a tabulation of the total number of individuals for whom monitoring was provided, along with information on total station dose for the year.

Table 3.2 presents a tabulation of the number of station, utility, and other personnel (including contractors) receiving exposures greater than 100 mrem/yr (1.0 mSv/yr) and their associated person-rem exposure according to work and job functions. This table is provided per Regulatory Guide 1.16, Section C.1.b.(3), and Kewaunee Technical Specification 6.9.a.2.B.

**TABLE 3.1**  
**January 1, 1999 – December 31, 1999**  
**TOTAL STATISTICS**

<u>RANGE (mR)</u>	<u>NUMBER OF INDIVIDUALS IN RANGE</u>
No Measure	336
Less Than 100	89
100 - 249	12
250 - 499	0
500 - 749	0
750 - 999	0
1000 - 1999	0
Greater Than 2000	0
<b>TOTAL BADGED</b>	<b>437</b>

The total actual dose at the Kewaunee Nuclear Power Plant for 1999 was 5.131 Person Rem (TEDE).

TABLE 3.2  
**U.S.N.R.C. REGULATORY GUIDE 1.16 REPORT**  
**KEWAUNEE NUCLEAR POWER PLANT**  
**FROM 1/1/99 TO 12/31/99**

		NUMBER > 100 mREM			TOTAL PERSON-REM		
		Station	Utility	Contract	Station	Utility	Contract
<b>Reactor Operations and Surveillance</b>	<b>1</b>						
Maintenance		0	0	0	0.000	0.000	0.000
Operations		1	0	0	0.598	0.000	0.000
Health Physics		0	0	0	0.000	0.000	0.000
Supervisor		0	0	0	0.000	0.000	0.000
Engineering		0	0	0	0.000	0.000	0.000
<b>Routine Maintenance</b>	<b>2</b>						
Maintenance		1	0	0	0.839	0.000	0.045
Operations		0	0	0	0.000	0.000	0.000
Health Physics		8	0	0	2.268	0.000	0.000
Supervisor		0	0	0	0.021	0.000	0.000
Engineering		1	0	0	0.335	0.000	0.026
<b>Inservice Inspection</b>	<b>3</b>						
Maintenance		0	0	0	0.000	0.000	0.000
Operations		0	0	0	0.000	0.000	0.000
Health Physics		0	0	0	0.000	0.000	0.000
Supervisor		0	0	0	0.000	0.000	0.000
Engineering		0	0	0	0.000	0.000	0.000
<b>Special Maintenance</b>	<b>4</b>						
Maintenance		0	0	0	0.000	0.000	0.000
Operations		0	0	0	0.000	0.000	0.000
Health Physics		0	0	0	0.000	0.000	0.000
Supervisor		0	0	0	0.000	0.000	0.000
Engineering		0	0	0	0.000	0.000	0.059
<b>Waste Processing</b>	<b>5</b>						
Maintenance		0	0	0	0.000	0.000	0.000
Operations		0	0	0	0.000	0.000	0.000
Health Physics		1	0	0	0.415	0.000	0.000
Supervisor		0	0	0	0.000	0.000	0.000
Engineering		0	0	0	0.000	0.000	0.000
<b>Refueling</b>	<b>6</b>						
Maintenance		0	0	0	0.000	0.000	0.000
Operations		0	0	0	0.000	0.000	0.000
Health Physics		1	0	0	0.000	0.000	0.000
Supervisor		0	0	0	0.000	0.000	0.000
Engineering		0	0	0	0.000	0.000	0.000
<b>TOTALS</b>							
Maintenance		1	0	0	0.839	0.000	0.045
Operations		1	0	0	0.598	0.000	0.000
Health Physics		9	0	0	2.683	0.000	0.000
Supervisor		0	0	0	0.021	0.000	0.000
Engineering		1	0	0	0.335	0.000	0.085
<b>GRAND TOTALS</b>		<b>12</b>	<b>0</b>	<b>0</b>	<b>4.476</b>	<b>0</b>	<b>0.130</b>

#### **4.0 CHANGES IN THE EMERGENCY CORE COOLING SYSTEM MODEL**

The provisions of 10 CFR 50.46 require the reporting of corrections or changes to the emergency core cooling system (ECCS) models that are approved for use in performing the loss of coolant accident (LOCA) safety analysis. There were no corrections or changes to the model during 1999.

## **5.0 FAILURES OF TURBINE STOP AND CONTROL VALVES**

There were no failures of the turbine stop and control valves during 1999.

## **6.0 MAXIMUM COOLANT ACTIVITY**

KNPP TS 6.9.a.2.D requires the documentation of the results of specific activity analysis in which the reactor coolant exceeded the limits of TS 3.1.c.1.A during the past year.

The reactor coolant did not exceed the limits of TS 3.1.c.1.A during 1999.