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 WASHINGTON,S.L. Washington Public Power Supply System
 POWERS,C.M. Washington Public Power Supply System
 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 89-003-00:on 890209,missed CR emergency filtration sys
 charcoal sampling due to misinterpretation.W/890310 ltr.
 W/8 ltr.

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 TITLE: 50.73 Licensee Event Report (LER), Incident Rpt, etc.

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Washington Nuclear Plant - Unit 2										DOCKET NUMBER (2) 0 5 0 0 0 3 9 7 1 OF 0 5										PAGE (3)								
TITLE (4) Missed Control Room Emergency Filtration System Charcoal Sampling Technical Specification Surveillance Due to Misinterpretation of the Surveillance Requirement																												
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	2	0	9	8	9	8	9	-	0	0	3	-	0	0	0	3	1	0	8	9								
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																									
1			20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)													
POWER LEVEL (10)			20.406(a)(1)(i)				50.36(e)(1)				50.73(a)(2)(v)				73.71(c)													
0 7 8			20.406(a)(1)(ii)				50.36(e)(2)				50.73(a)(2)(vi)				OTHER (Specify & Abstract below and in Text NRC Form 366A)													
			20.406(a)(1)(iii)				X 50.73(a)(2)(i)				50.73(a)(2)(viii)(A)																	
			20.406(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)																	
			20.406(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(ix)																	
LICENSEE CONTACT FOR THIS LER (12)																												
NAME												TELEPHONE NUMBER																
S.L. Washington, Compliance Engineer												AREA CODE		5 0 1 9 3 1 7 1 7 - 1 2 1 0 8 1 0														
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																												
CAUSE	SYSTEM	COMPONENT	MANUFAC- TURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFAC- TURER	REPORTABLE TO NPRDS																		
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SUPPLEMENTAL REPORT EXPECTED (14)												EXPECTED SUBMISSION DATE (15)																
YES // If yes, complete EXPECTED SUBMISSION DATE:												X NO		MONTH		DAY		YEAR										
ABSTRACT (Limit to 1400 spaces, i.e. approximately fifteen single-space typewritten lines) (16)																												
<p>On February 9, 1989, during review of an NRC Notice of Violation the Plant Operating Committee (POC) determined that a violation of a WNP-2 Plant Technical Specification had occurred. Technical Specification 4.7.2.d requires a Control Room Emergency Filtration System adsorber charcoal sample to be taken after every 720 hours of operation. On November 7, 1988 the adsorber charcoal in Control Room Emergency Filtration System "Train B" had operated for 933 hours, which is a violation of Technical Specification 4.0.2 which states that the maximum time a surveillance interval can be extended is 25% of the surveillance interval.</p> <p>The cause of this event is the misinterpretation of Technical Specification 4.7.2.d by the Supply System. Section 4.7.2 of the WNP-2 Technical Specifications states, in part, "Each Control Room Emergency Filtration System shall be demonstrated operable" and Subsection 4.7.2.d states, "After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample . . . meets the laboratory testing criteria of . . . Regulatory Guide 1.52." The Supply System implemented this Technical Specification by requiring a sample to be taken and analyzed within 31 days of exceeding 720 hours of operation.</p> <p>The following corrective actions were taken: The charcoal sample was analyzed and the tested efficiency was 99.815% which exceeds the 99% acceptance criteria; the Plant Technical Manager issued a letter redefining how Technical Specification 4.7.2.d would be implemented; and Plant procedure PPM 7.0.0 "Routine Surveillance" was revised to require charcoal adsorber sampling between 720 and 900 hours of operation.</p>																												

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Washington Nuclear Plant - Unit 2	01501010131917	819	-01013	-010	012	OF 015

TEXT (If more space is required, use additional NRC Form 360A's) (17)

Abstract (Cont'd)

Since the charcoal sample analyzed efficiency was greater than the Technical Specification acceptance criteria, there is no safety significance associated with this event.

Plant Conditions

- a) Power Level - 78%
- b) Plant Mode - 1 (Power Operation)

Event Description

During a Plant Operating Committee (POC) meeting on February 9, 1989, it was determined that a violation of a WNP-2 Technical Specification had occurred. At the time the POC was reviewing the proposed Supply System response to NRC Notice of Violation (NOV) "A" in Inspection Report 88-40. The NOV stated that Technical Specification 4.0.2 was violated in that a charcoal sample was not removed from the charcoal adsorber of Control Room Emergency Filtration System "Train B" within the allowable surveillance interval. Section 4.7.2 of the WNP-2 Plant Technical Specifications states, in part, "Each Control Room Emergency Filtration System shall be demonstrated operable" and Subsection 4.7.2.d states, "After every 720 hours of charcoal adsorber operation by verifying within 31 days after removal that a laboratory analysis of a representative sample . . . meets the laboratory testing criteria of . . . Regulatory Guide 1.52." A charcoal adsorber sample was removed from "Train B" after 933 hours of operation, which exceeded the 900 hour surveillance limit (720 hours plus 25%) for operation.

The following two paragraphs are included for background information.

The Supply System reported, on October 3, 1988, in Licensee Event Report 88-031-00 that a single failure could cause the Control Room HVAC System to operate in an unanalyzed mode. One of the corrective actions associated with this event was to start the Control Room Emergency Filtration System and operate the Control Room HVAC in the pressurization mode. Operation in the pressurization mode requires continuous operation of the Control Room Emergency Filtration System. As a result, the Emergency Filtration System operated continuously during this event.

On October 7, 1988 the Supply System reported in LER 88-033-00 that Plant Technical Specification Surveillance 4.7.2.e.2 had not been performed since Plant Startup. In order to perform surveillance 4.7.2.e.2 a temporary procedure was written. Also, at the time of this event, a Plant Engineer revised Plant procedure PPM 7.4.7.2.3 "Control Room Filtration System-Carbon Adsorber Sample Test" to initiate the Control Room Emergency Filtration System on actuation test signals (Drywell pressure - high, Reactor vessel water level - low, and Reactor Building Exhaust Plenum - high radiation). Previously the system was initiated manually to perform the surveillance. Subsequently, it was determined that actuation by test signal was not appropriate.

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TEXT (If more space is required, use additional NRC Form 368A's) (17)

The following is a chronology of the event:

On October 24, 1988 Control Room Emergency Filtration System "Train B" exceeded 720 hours of charcoal adsorber operation. In preparing to sample the "Train B" adsorber charcoal, it was determined that surveillance procedure PPM 7.4.7.2.3 needed to be revised to delete the Control Room Emergency Filtration System initiation on actuation test signals. The operation of "Train B" beyond the 720 hour sample period was reviewed by the Plant Technical Staff which determined that operation of "Train B" could continue as long as a charcoal adsorber sample was obtained and analyzed within the following 31 day period.

On November 3, 1988 the revised surveillance procedure PPM 7.4.7.2.3 was approved. At that time, Train B had been operated for 862 hours.

On November 4, 1988 performance of surveillance procedure PPM 7.4.7.2.3 was postponed because a differential pressure indicating switch (WMA-DPIS-54A2) in Control Room Emergency Filtration System "Train A" was broken, causing "Train A" to be inoperable. The Technical Specification requirements pertaining to "Train B" operation were again reviewed and the same conclusion was reached that if a charcoal sample was obtained and analyzed within the 31 day period, the requirements of Technical Specification 4.7.2.d were met.

On November 8, 1988 the surveillance, which removed a charcoal adsorber sample from "Train B", was performed. Train B had operated for 933 hours.

Immediate Corrective Action

There was no immediate corrective action associated with this event.

Further Evaluation and Corrective Action

A. Further Evaluation

This event is reportable per 10CFR50.73(a)(2)(i)(B), a condition prohibited by Plant Technical Specifications. Technical Specification 4.0.2 requires all surveillances to be completed within the specified time interval plus 25%. Contrary to this requirement a charcoal adsorber sample for Control Room Emergency Filtration System "Train B" was not obtained within the surveillance time interval plus 25% of Technical Specification 4.7.2.d.

There were no structures, components, or systems inoperable at the start of this event which contributed to the event.

Dwyer Instruments Inc. manufactured WMA-DPIS-54A2. The Model Number is 3004. The cause of the failure was mechanical binding in the switch.

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TEXT (If more space is required, use additional NRC Form 365A's) (17)

The root cause of this event was a misinterpretation of the Technical Specification requirement. The application of Technical Specification 4.0.2 to a performance-based interval was not understood since, in this case, it makes little difference when the sample is taken as long as the sample is obtained and the analysis is completed within 31 days. The Supply System believed that it was acting in a conservative manner in implementing Technical Specification 4.7.2.d by requiring the charcoal sampling and analysis to be completed within 31 days of exceeding 720 hours of operation. The current Technical Specification implementation method could allow up to 7 days to obtain the sample and an additional 31 days to analyze the sample. The Supply System interpretation and implementation of Technical Specification 4.7.2.d was consistent throughout the event period and, if the current interpretation had been understood, a sample would have been obtained prior to exceeding 900 hours of operation on the train and this event would not have occurred.

B. Further Corrective Action

- 1) The Train B charcoal adsorber sample obtained on November 8, 1988 tested with an efficiency of 99.815+/-0.07%. The Technical Specification acceptance criteria is 99% or greater efficiency.
- 2) Prior to receiving the Notice of Violation (Jan 13, 1989) the Plant Technical Manager on November 29, 1988 issued a letter to the Plant Operations Manager and Plant Maintenance Manager defining how Technical Specification 4.7.2.d is to be implemented. Briefly, the letter states that a charcoal adsorber sample should be taken when the service time reaches 720 hours, and that no more than 900 hours (720 hours plus 25%) should be accumulated prior to taking the sample.
- 3) Plant procedure PPM 7.0.0 "Routine Surveillances" was revised to require charcoal adsorber sampling between 720 and 900 hours of operation, and to declare the associated train inoperable if 900 hours of operation is exceeded prior to sampling.

Safety Significance

There is no safety significance associated with this event. Previous surveillances of the Control Room Emergency Filtration System charcoal adsorber have shown very little degradation of the charcoal. For this particular event, the charcoal adsorber sample tested to an efficiency of 99.815+/-0.07%, which exceeds both the Technical Specification surveillance acceptance criteria of 99% and the 95% efficiency assumed in the Control Room post-accident habitability analysis. Therefore, since the charcoal sample analysis shows that the charcoal adsorber effectiveness exceeded the Technical Specification acceptance criteria and the effectiveness assumed in Control Room post-accident habitability analysis, there is no safety significance associated with this event. Accordingly, this event posed no threat to the health and safety of the public or Plant personnel.

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Washington Nuclear Plant - Unit 2	050397	89	003	00	05	OF	05

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Similar Events

None

EIIS InformationText ReferenceEIIS ReferenceControl Room Emergency Filtration System "Train B"
(Train "A")

VH

Charcoal Adsorber

VH

Control Room HVAC

NH

Drywell

NH

Reactor Vessel

IL

Reactor Building Exhaust Plenum

Differential Pressure Indicating Switch (WMA-DPIS-54A2)

VH

POIS

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

P.O. Box 968 • 3000 George Washington Way • Richland, Washington 99352

Docket No. 50-397

March 10, 1989

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

Subject: NUCLEAR PLANT NO. 2
LICENSEE EVENT REPORT NO. 89-003

Dear Sir:

Transmitted herewith is Licensee Event Report No. 89-003 for the WNP-2 Plant. This report is submitted in response to the report requirements of 10CFR50.73 and discusses the items of reportability, corrective action taken, and action taken to preclude recurrence.

Very truly yours,



C.M. Powers (M/D 927M)
WNP-2 Plant Manager

CMP:lg

Enclosure:

Licensee Event Report No. 89-003

cc: Mr. John B. Martin, NRC - Region V
Mr. C.J. Bosted, NRC Site (M/D 901A)
INPO Records Center - Atlanta, GA
Ms. Dottie Sherman, ANI
Mr. D.L. Williams, BPA (M/D 399)

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