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RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 91-018-00:on 910712,control room emergency filtration & standby gas treatment sys carbon absorber surveillances not performed per TS 4.7.2 requirements.Caused by inadequate procedures.Carbon replaced.W/910812 ltr.

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WASHINGTON PUBLIC POWER SUPPLY SYSTEM

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

Docket No. 50-397

August 12, 1991

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

Subject: NUCLEAR PLANT NO. 2
LICENSEE EVENT REPORT NO. 91-018

Dear Sir:

Transmitted herewith is Licensee Event Report No. 91-018 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,

ST Harrold for
J.W. Baker (M/D 927M)
WNP-2 Plant Manager

JWB:ac

Enclosure:
Licensee Event Report No. 91-018

cc: Mr. John B. Martin, NRC - Region V
Mr. C. Sorensen, NRC Resident Inspector (M/D 901A)
INPO Records Center - Atlanta, GA
Ms. Dottie Sherman, ANI
Mr. D. L. Williams, BPA (M/D 399)
NRC Resident Inspector - walk over copy

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NRC FORM 366 (6-89) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92
ESTIMATED BURDEN PER RESPONSE TO COMPLY WTH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Washington Nuclear Plant - Unit 2	0 5 0 0 0 3 9 7	1 OF 0 5

TITLE (4) Control Room Emergency Filtration and Standby Gas Treatment System Carbon Absorber Surveillances Not In Compliance With Tech. Spec. Due to Less Than Adequate Procedures

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 5 0 0 0
0 7	1 2	9 1	9 1	— 0 1 8	— 0 0	0 8	1 2	9 1		0 5 0 0 0

OPERATING MODE (9)	4	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)		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)	X	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
	AREA CODE
J. D. Arbuckle, Compliance Engineer	5 0 9 3 7 7 - 2 1 1 5

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	

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 July 12, 1991 it was determined that the method for implementing the surveillance requirements pertaining to the Control Room Emergency Filtration System carbon absorber was not in compliance with the Technical Specifications. The removed carbon was not being sampled and tested upon replacement as required by Technical Specification 4.7.2. This discrepancy was discovered when a Plant Maintenance Engineer questioned the sampling requirement when the carbon was being replaced during a recent 18-month surveillance test for Division A of the system. On August 8, 1991, as a result of a further corrective action for this event, one additional reportable instance was identified with regard to the Standby Gas Treatment (SGT) System. From an evaluation of other potential areas of concern, it was determined that on April 18, 1990 the carbon was replaced in the SGT, Division B, absorber filter and a sample was not tested.

The cause of these events was less than adequate procedures due to misinterpretation of the Technical Specification requirements for ensuring that the efficiency of the carbon absorber met the provisions and intent of Regulatory Guide 1.52. The Control Room Emergency Filtration System procedures provided the option of removal of the carbon absorber in lieu of testing, but did not require followup testing. The Standby Gas Treatment System procedures did not specify that followup testing was required if the carbon was to be replaced.

Abstract (continued)

Immediate corrective action consisted of declaring the system inoperable, entering the applicable Limiting Condition for Operation (LCO) and testing the removed carbon absorber. Further corrective action consists of revising applicable Control Room Emergency Filtration System procedures, performing an evaluation to determine if similar discrepancies had occurred in systems other than Control Room Emergency Filtration, and revising applicable Standby Gas Treatment System procedures. This event posed no threat to the health and safety of either the public or Plant personnel.

Plant Conditions

Power Level - 0%
Plant Mode - 4 (Cold Shutdown)

Event Description

On July 12, 1991 it was determined that the method for implementing the surveillance requirements pertaining to the Control Room Emergency Filtration System carbon absorber was not in compliance with the Technical Specifications. The removed carbon was not being sampled and tested upon replacement as required by Technical Specification 4.7.2. This discrepancy was discovered when a Plant Maintenance Engineer questioned the sampling requirement when the carbon was being replaced during a recent 18-month surveillance test for Division A of the system.

Plant Technical Specification 4.7.2 requires in part that, "Each control room emergency filtration system train shall be demonstrated OPERABLE . . . At least every 18 months and after every 720 hours of charcoal absorber operation by verifying within 31 days after removal that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Guide 1.52 meets the laboratory testing criteria of Regulatory Guide 1.52 for a methyl iodide penetration of less than 1.0 percent."

However, Plant procedures for the Control Room Emergency Filtration System, Divisions A and B, carbon absorber surveillance testing provided direction that the absorber material was considered acceptable if the methyl iodide penetration is less than 1.0 percent, or if the absorber material was replaced. The purpose of these procedures is to ensure that the efficiency of the carbon absorber in the filter units meets the requirements of Regulatory Guide 1.52.

On August 8, 1991, as a result of a further corrective action to evaluate other potential areas of concern pertaining to this event, one additional reportable instance was identified with regard to the Standby Gas Treatment (SGT) System. From the evaluation it was determined that on April 18, 1990 the carbon was replaced in the SGT, Division B, absorber filter and a sample was not tested. This is discussed in additional detail in the "Further Evaluation Section" of this LER.

Immediate Corrective Action

Control Room Emergency Filtration System Filter Units WMA-FU-54A and WMA-FU-54B were declared inoperable, the applicable Limiting Condition for Operation (LCO) was entered and a sample of the removed carbon was submitted to an off-site laboratory for testing.

Further Evaluation and Corrective Action

A. Further Evaluation

1. This event is reportable in accordance with the requirements of 10CFR50.73(a)(2)(i)(B) as a condition prohibited by the Plant's Technical Specifications.

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

3. The cause of this event is Less Than Adequate Procedures due to misinterpretation of the Technical Specification requirements for ensuring that the efficiency of the carbon absorber met the provisions and intent of Regulatory Guide 1.52. When the procedures were developed (and through subsequent revisions) it was believed that the sampling requirement of Technical Specification 4.7.2 applied only if the carbon absorber was not being replaced, and that replacement was a more conservative approach to meeting the Technical Specification requirement. However, the carbon should have been tested following replacement to validate the maximum run-time and the surveillance frequency.

B. Further Corrective Action

1. On July 25, 1991 satisfactory carbon absorber testing results of the removed sample from Division A of the system were received from the off-site laboratory. The results were 99.99 percent efficiency. Efforts are currently in progress to test a sample from Division B of the system.

2. Plant Procedures (PPM) 7.4.7.2.3A, "Control Room Division A Filtration System Carbon Absorber Test," and PPM 7.4.7.2.3B, "Control Room Division B Filtration System Carbon Absorber Test," were revised and approved to remove the option of carbon absorber removal, without followup testing. The procedure requires that the methyl iodide penetration test shall be verified to be less than 1.0 percent penetration and the results shall be known within 31 days from the date the sample was obtained.

3. An Engineering evaluation was performed to determine if similar problems had occurred in systems other than Control Room Emergency Filtration. As a result of the evaluation, one other reportable instance was noted where the carbon was replaced in Division B absorber filter of the Standby Gas Treatment (SGT) System, and a sample was not tested. The carbon absorber was replaced on April 18, 1990 and a sample was not obtained because no test canisters were available following replacement efforts (carbon sample testing was performed during a subsequent surveillance on March 29, 1991).

   The cause of this event is also Less Than Adequate Procedures due to misinterpretation of the Technical Specification requirements for ensuring that the efficiency of the carbon absorber met the provisions and intent of Regulatory Guide 1.52 as required by Technical Specification 4.6.5.3 (Standby Gas Treatment System Surveillance Requirements). The Standby Gas Treatment System procedures did not specify that followup testing was required if the carbon was to be replaced. However, as with the Control Room Emergency Filtration System event the carbon should have been tested following replacement to validate the maximum run-time and the surveillance frequency.

   Accordingly, applicable SGT System procedures are currently in the process of being revised to ensure that the required carbon material efficiency testing is performed.

   This event is also reportable in accordance with the requirements of 10CFR50.73(a)(2)(i)(B) as a condition prohibited by the Plant's Technical Specifications.

Safety Significance

There is no safety significance associated with this event. Previous surveillances of the Control Room Emergency Filtration System carbon absorber have shown minimal degradation of the charcoal. Furthermore, in this particular situation, the test results for carbon absorber efficiency were 99.99 percent efficiency, which exceeds the Technical Specification acceptance criteria of 99 percent. With regard to the Standby Gas Treatment System, previous test history has also shown that the carbon efficiency has not degraded during the surveillance periods. Accordingly, this event posed no threat to the health and safety of either the public or Plant personnel.

Similar Events

LER 89-003, "Missed Control Room Emergency Filtration System Charcoal Sampling Technical Specification Surveillance due to Misinterpretation of the Surveillance Requirement." This LER described an event where, if a sample was to be taken, the Supply System interpreted the Technical Specification as requiring that the sample be analyzed within 31 days of exceeding 720 hours of operation. However, in this particular case, Division B of the system had operated for 933 hours, which was a violation of Technical Specification 4.0.2 which states that the maximum time a surveillance interval can be extended is 25 percent of the surveillance interval. As a result, procedures were revised to require that a charcoal absorber sample be taken when service time reaches 720 hours, and that no more than 900 hours (720 hours plus 25 percent) be accumulated prior to taking the sample.

EIIS Information

Text Reference	EIIS Reference	
	System	Component
Control Room Emergency Filtration System	VH	---
Carbon Absorber	VH	ABS
Filter Units WMA-FU-54A and WMA-FU-54B	VH	FLT
Standby Gas Treatment (SGT) System	BH	---