

James A. FitzPatrick  
Nuclear Power Plant  
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Michael J. Colomb  
Site Executive Officer

November 10, 1999  
JAFP-99-0301

United States Nuclear Regulatory Commission  
Attn: Document Control Desk  
Mail Station P1-137  
Washington, D.C. 20555

Subject: **Docket No. 50-333**  
**LICENSEE EVENT REPORT: LER-99-009 (DER-99-02041)**

**Standby Gas Treatment System Train "B" Charcoal Efficiency Less than Required**

Dear Sir:

This report is submitted in accordance with 10 CFR 50.73(a)(2)(i), "Any operation or condition prohibited by the plant's Technical Specifications."

There are no commitments contained in this report.

Questions concerning this report may be addressed to Mr. James Costedio at (315) 349-6358 .

Very truly yours,

A handwritten signature in black ink, appearing to read 'Michael J. Colomb'.

MICHAEL J. COLOMB

MJC:jjc:las  
Enclosure

cc: USNRC, Region 1  
USNRC, Project Directorate  
USNRC Resident Inspector  
INPO Records Center

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**LICENSEE EVENT REPORT (LER)**

(See reverse for required number of digits/characters for each block)

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not

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**TITLE (4)**  
Standby Gas Treatment System Train "B" Charcoal Efficiency Less than Required

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 NAME	DOCKET NUMBER
10	14	99	99	009	00	11	10	99	N/A	05000
									N/A	05000

<b>OPERATING MODE (9)</b> N	<b>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)</b>									
	20.2201(b)		20.2203(a)(2)(v)	<input checked="" type="checkbox"/>	50.73(a)(2)(i)		50.73(a)(2)(viii)			
<b>POWER LEVEL (10)</b> 100	20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)			
	20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71			
	20.2203(a)(2)(ii)		20.2203(a)(4)		50.73(a)(2)(iv)		OTHER			
	20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A			
	20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)					

**LICENSEE CONTACT FOR THIS LER (12)**

<b>NAME</b> James J. Costedio, Sr. Licensing Engineer	<b>TELEPHONE NUMBER (Include Area Code)</b> 315-349-6358
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CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

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

**ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)**

On October 14, 1999 at 1130 hours during a review of Standby Gas Treatment System (SBGTS) Surveillance Test (ST) results, Engineering discovered that the charcoal cartridge adsorption capability of SBGTS Train "B" had been less than the ST acceptance criteria for approximately six months. The reported efficiency was 99.37 percent. The ST acceptance criteria stated that the charcoal efficiency shall be greater than or equal to 99.825 percent. The personnel assigned to review the ST results failed to recognize that the charcoal efficiency did not meet the ST acceptance criteria. Upon discovery, SBGTS Train "B" was declared inoperable and a seven day Limiting Condition for Operation (LCO) was entered in accordance with Technical Specification Section 3.7.B.2.a. The charcoal in SBGTS Train "B" was replaced during the LCO time frame, personnel were counseled, lessons learned were discussed with the personnel involved in the event, and a procedure will be revised. The extent of condition is limited to this event. This event did not result in a safety system functional failure in accordance with draft NEI 99-02, Revision C.

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		99	009	00	

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

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**EVENT DESCRIPTION**

On October 14, 1999 at 1130 hours during a review of Standby Gas Treatment System (SBGTS) [BH] Surveillance Test (ST) results, Engineering discovered that the charcoal cartridge adsorption capability of SBGTS Train "B" had been less than the ST acceptance criteria for approximately six months. The reported efficiency was 99.37 percent. The ST acceptance criteria stated that the charcoal efficiency shall be greater than or equal to 99.825 percent.

On March 30, 1999 a charcoal sample was obtained from Train "B" of the SBGTS. This sample was tested by the vendor (NCS Inc.) on April 13, 1999. Test results were documented by the vendor and were reviewed at FitzPatrick on May 17, 1999. Plant personnel did not recognize that unsatisfactory test results were documented in the test report. Subsequently, the Unsatisfactory test results were discovered by Engineering on October 14, 1999. This event was reported in a one hour non-emergency report under 10 CFR 50.72(b)(1)(ii), "Any event or condition that resulted in the nuclear power plant being in a condition that is outside the design basis of the plant." Upon discovery, SBGTS Train "B" was declared inoperable and a seven day Limiting Condition for Operation (LCO) was entered in accordance with Technical Specification Section 3.7.B.2.a. The charcoal in SBGTS Train "B" was replaced during the LCO time frame.

**CAUSE OF THE EVENT**

The personnel assigned to review the ST (i.e., RP-RESP-03.02, SBGTS, CREVASS, and TSCVASS Testing) results failed to recognize that the charcoal efficiency did not meet the ST acceptance criteria [Cause Code A]. This is attributed to inattention to detail because personnel did not recognize that one out of several ST acceptance criteria were unsatisfactory. A contributing cause is that RP-RESP-03.02 does not require personnel to independently verify that the charcoal adsorption ST results meet the acceptance criteria. RP-RESP-03.02 does require that the following test results be independently verified to meet the ST acceptance criteria:

- DOP test for particulate filters on two trains of the SBGTS, two trains of the CREVASS, and one train of the TSCVASS.
- Freon test for charcoal filter leakage on two trains of the SBGTS, two trains of the CREVASS, and one train of the TSCVASS.
- Pressure drop test for charcoal filter leakage on two trains of the SBGTS, two trains of the CREVASS, and one train of the TSCVASS.

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**ANALYSIS OF EVENT**

Engineering discovered that the charcoal cartridge adsorption capability of SBGTS Train "B" had been less than the ST acceptance criteria for approximately six months. The test results showed an efficiency of 99.37 percent. The ST acceptance criteria stated that the charcoal efficiency shall be greater than or equal to 99.825 percent. The Loss of Coolant Accident (LOCA) dose evaluations assume a SBGTS charcoal efficiency of 99 percent. Based on the SBGTS Train "B" charcoal efficiency test results (i.e., 99.37 percent) and the efficiency assumed in the LOCA dose evaluations (i.e., 99 percent), the Authority believes that reasonable assurance exists to conclude that the SBGTS would have performed the intended safety function. Based on this, the plant did not operate outside the design basis. Therefore, the 10 CFR 50.72(b)(1)(ii) one hour non-emergency notification reported on October 14, 1999 is being retracted with this report. However, the plant did operate in a condition prohibited by the plant TS by exceeding the seven day LCO for the failed ST.

In addition, the Authority has submitted a proposed TS change (JPN-98-007, Changes to the Technical Specifications Regarding the Allowed Containment Leakage Rate ( $L_a$ )) to the NRC that would allow the containment [NH] allowable leakage rate ( $L_a$ ) to be increased from 0.5 percent per day to 1.5 percent per day. As part of this proposed change, revised LOCA dose evaluations were provided to the NRC. The SBGTS charcoal efficiency assumed in these revised LOCA dose evaluations is revised from 99 to 90 percent. Given the conservatism inherent in these revised LOCA dose evaluations, it can be concluded that even though the ST acceptance criteria was not satisfied, the consequence of the test failure would not have impacted the LOCA dose evaluation conclusions.

Based on the above, this event was not safety significant.

**EXTENT OF CONDITION**

Data regarding charcoal testing was reviewed from 1996 to date. No other out of specification results were identified. In addition, Engineering reviewed other Radiological Environmental Services (RES) STs that require vendor testing. The results of this review showed that each of the ST procedures reviewed require independent review by plant personnel of ST results against the acceptance criteria.

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**CORRECTIVE ACTIONS**

1. Lessons learned were discussed with the personnel involved in the event. **(Complete)**
2. Personnel involved in the event were counseled. **(Complete)**
3. Replace charcoal on Train "B" of the SGBT System. **(Complete)**
4. Revise RP-RESP-03.02 to require personnel to verify that the laboratory charcoal adsorption ST results meet the acceptance criteria. This is to be completed prior to the performance of the next scheduled charcoal adsorption test. **(Scheduled Completion Date: 12/31/99)**

**SAFETY SYSTEM FUNCTIONAL FAILURE REVIEW:**

This event did not result in a safety system functional failure in accordance with draft NEI 99-02, Revision C.

**FAILED COMPONENTS**

There were no failed Components.

**PREVIOUS SIMILAR EVENTS**

There are no previous similar events.