

LICENSEE EVENT REPORT (LER)															Form Rev. 2.0													
Facility Name (1) Quad Cities Unit One										Docket Number (2) 0 5 0 0 0 2 5 4					Page (3) 1 of 0 4													
Title (4) Control Room Emergency Filtration System inoperable due to operator knowledge weakness.																												
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	9	0	7	9	6	9	6	--	0	2	0	--	0	0	1	0	0	7	9	6	0	5	0	0	0	2	6	5
OPERATING MODE (9)			THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)																									
POWER LEVEL (10) 0 2 3			20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)													
			20.405(a)(1)(i)				50.36(c)(1)				<input checked="" type="checkbox"/> 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)													
			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 Charles Peterson, Regulatory Affairs Manager, ext. 3602										TELEPHONE NUMBER AREA CODE 3 0 9 6 5 4 - 2 2 4 1																		
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) <input checked="" type="checkbox"/> NO																												
ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)																												

ABSTRACT:

On 9/7/96 at 0530 hours, Unit One was in Power Operation Mode at 23% power and Unit Two was in Power Operation Mode at 85% power. The Control Room ventilation system was in the isolated recirculation mode with the Toxic Gas Analyzer (TGA) de-energized. The operators were unable to start the Air Filtration Unit (AFU) booster fans during the performance of the monthly surveillance. When the operators were unable to determine the cause they declared the Control Room Emergency Filtration System inoperable, entered a 14 day Limiting Condition for Operation (LCO), and made an Emergency Notification System (ENS) call at 0556 hours.

The root cause of this event was operator knowledge weakness. When the AFU booster fans failed to start, the operators failed to recognize the relationship between the AFU booster fans and the toxic gas analyzer. Corrective actions include incorporating this event in the operator required reading, including this LER in Modifications and Lessons Learned training, and changing the surveillance procedure.

The safety significance of this event is minimal because in the event of a Loss of Coolant Accident (LOCA), the ventilation system would have remained in recirculation for a sufficient time to identify and correct the problem.

LER254/96/020.WPF

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TEXT Energy Industry Identification System (EIS) codes are identified in the text as [XX]

PLANT AND SYSTEM IDENTIFICATION:

General Electric - Boiling Water Reactor - 2511 MWt rated core thermal power.

EVENT IDENTIFICATION: Control Room Emergency Filtration Systems inoperable due to operator knowledge weakness.A. CONDITIONS PRIOR TO EVENT:

Unit: One	Event Date: September 7, 1996	Event Time: 0530
Reactor Mode: 1	Mode Name: Power Operation	Power Level: 23
Unit: Two		
Reactor Mode: 1	Mode Name: Power Operation	Power Level: 85

This report was initiated by Licensee Event Report LER254\96-020.

Power Operation (1) - Mode switch in the RUN position with average reactor coolant temperature at any temperature.

B. DESCRIPTION OF EVENT:

On 9/6/96 QOS 5750-04, "Control Room Ventilation Toxic Gas Analyzer Inoperable Outage Report" was initiated to perform preventive maintenance on the Control Room Toxic Gas Analyzer [45]. Step 7 of QOS 5750-04 states in part, "If desired, due to analyzer being in the tripped condition, place the toxic gas analyzer in the untripped condition by lifting wire...". This step allows the Air Filtration Unit (AFU) [VI] to be run with the Toxic Gas Analyzer deenergized. The Operations entered "NA" for this step as the operators did not need to operate the AFU. At 0400 hours the Toxic Gas Analyzer was de-energized to perform the preventive maintenance.

On 9/7/96 at approximately 0500 hours operators were preparing to perform QCOS 5750-02, "Control Room Emergency Filtration System Monthly Test". Step H.2 of this procedure states to verify the toxic gas analyzer system is in service or initiate the QOS 5750-04 Outage Report. The Unit Supervisor verified that QOS 5750-04 had already been initiated but did not review the existing outage report as this was not considered necessary to complete step H.2. Outage Reports do not normally contain conditional steps required for a surveillance procedure.

At 0530 hours the operator attempted to perform step H.8 of QCOS 5750-02 to start the AFU. At this time the "A" and "B" Booster fans could not be started. The Toxic Gas Analyzer was still deenergized under Outage Report QOS 5750-04 which prevented the Booster fans from starting.

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The Operators could not determine the reason why the booster fans would not start and declared the AFU inoperable and entered the 14 day Limiting Condition for Operation (LCO) in accordance with Technical Specification 3.8.H.1.a. A 4 hour Emergency Notification System (ENS) phone call was made at 0556 hours.

C. APPARENT CAUSE OF EVENT:

The root cause of this event was operator knowledge weakness. When the AFU booster fans failed to start, the operators failed to recognize the relationship between the AFU booster fans and the toxic gas analyzer.

The contributing cause of this event is inadequate procedures. The procedural direction necessary to operate the AFU with an inoperable toxic gas analyzer was contained in QOS 5750-04, step 7. However, QOS 5750-02 did not contain a specific reference to the applicable step of QOS 5750-04 nor did it provide any specific information as to the intent of the outage report. As a result, the operators did not identify the need to lift the appropriate lead to bypass the AFU interlock.

D. SAFETY ANALYSIS OF EVENT:

The safety significance of this event is considered minimal. The AFU is a manually initiated system and the steps to initiate the AFU with the toxic gas analyzer inoperable were included in QOS 5750-04. In a non-accident condition, or in a Loss Of Offsite Power (LOOP), the inability to start the AFU booster fans is insignificant, as no radioactive particles or vapors requiring filtration would be present. In the condition of a concurrent LOCA and LOOP, the toxic gas analyzer would be bypassed allowing the booster fans to start. Therefore, the only condition of concern for the inability to start the AFU booster fans is a LOCA condition.

In accordance with Updated Final Safety Analysis Report (UFSAR) Table 15.6-7, Section III, the Control Room intake will immediately isolate on a Loss of Coolant Accident (LOCA). This will act to minimize the intake of outside air and potential contamination into the Control Room. The AFU start (manual start) is assumed to be 110 minutes following the LOCA. It is reasonable to assume in the event of a LOCA continuous troubleshooting would have commenced and that the system would have been able to be started within the 110 minutes.

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E. CORRECTIVE ACTIONS:

Corrective Actions Completed

1. The Operators declared the Control Room Emergency Filtration System inoperable and entered the 14-day LCO.
2. This event has been incorporated in operator required reading.

Corrective Actions to be Completed

1. A description of this event will be presented to Licensed Operations personnel in retraining by 01/31/97. (Training - NTS#2541809602001)
2. QCOS 5750-02, "Control Room Emergency Filtration System Monthly Test" will be revised by 10/27/96. (Operations - NTS#2541809602002)

F. PREVIOUS OCCURRENCES:

A search conducted for LER's over the last two years, which involved operator knowledge weakness, identified the following previous events:

- 254\96-006 Technical Specification 3.0.A was incorrectly invoked, due to procedural and operator knowledge deficiencies on technical specification requirements, when primary to secondary containment flowpaths were established during Local Leak Rate testing.
- 254\96-017 Manual scram taken during reactor startup when reactor water level increased following unplanned opening of all main turbine bypass valves due to an inadequate procedure.

G. COMPONENT FAILURE DATA:

Not applicable.