

Release

**From:** Nirodh Shah *RJT*  
**To:** Steven Orth  
**Date:** 12/21/05 1:14PM  
**Subject:** Licensee identified past blowline leak near river--Tritium update

Steve, on December 20, a non-licensed operator identified a pool of water (about 1-2 ft in diameter) near the the river screen house. The pool was located above a buried sample line running from the circulating water blowdown line to the river screen house. The licensee suspects that the water may originate from this line. The sample line is a 2 inch diameter carbon steel pipe. The pool of water was located on property owned by Exelon.

The licensee determined that this sample line has had past problems with leakage. Although the work history was limited, the licensee identified that the line was likely plugged and repaired several times between 1986-1993. It was believed that this line was repaired and/or abandoned in place, but no clear evidence of this has yet been found.

The licensee was taking steps to isolate the sample line (if possible) and planned to drill 3 wells in the vicinity of the line to determine if past tritium leakage had occurred. I am not sure if this past leak will be included in the ongoing root cause, as I believe that the root cause is only focusing on the 1998 and 2000 vacuum breaker events. I am pursuing this question with the licensee.

I will fax you the CRs documenting this issue and ask that you forward them to the other members of the tritium team (including Mac Chawla if he is not already part of the team).

thanks...N

**CC:** John House; John Robbins; Mahesh Chawla; Richard Skokowski

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## AR 00431913 Report

<b>Aff Fac:</b>	Braidwood	<b>AR Type:</b>	CR	<b>Status:</b>	APPROVED
<b>Aff Unit:</b>	00	<b>Owed To:</b>	ACAPALL	<b>Due Date:</b>	05/19/2006
<b>Aff System:</b>	CW			<b>Event Date:</b>	12/08/2005
<b>CR Level/Class:</b>	4/D			<b>Disc Date:</b>	12/08/2005
<b>How Discovered:</b>	H02			<b>Orig Date:</b>	12/08/2005
<b>WR/PIMS AR:</b>		<b>Equip Tag:</b>	0PS01A		

## Action Request Details

**Subject:** POSSIBLE HISTORIC CW BLOWDOWN LEAKAGE FROM LINE 0PS01A

**Description:** Originator: DAVID M JOHNSON Supv Contacted: John Kijowski, Jerry Panfil

**Condition Description:**

Possible Historic CW BD Leakage from line 0PS01A.

A 2" Carbon steel line extends from the CW BD line near the river to an analyzer at the river screen house. This line has had past problems. The passport record is very limited, The line was plugged and repaired (1986-1993) WO 86006462. Possible pipe failure due to corrosion? Additionally WO 98001083 was written for pipe leakage. The passport record does not directly show that the pipe failed or leaked however, considering the current Tritium concerns. Further investigation by the Tritium Task Force is suggested.

**Immediate actions taken:**

Talked with Tritium Task Force and initiate IR to document.

**Recommended Actions:**

Further investigation by the Tritium Task Force

**Operable Basis:****Reportable Basis:**

SOC Reviewed by: SHIRLEY J HAYNES 12/19/2005 10:45:11 CST

**SOC Comments:**

(12/9/05 SOC) TRITIUM CHARACTERIZATION TEAM (GOSNELL) TO ADDRESS ACTIONS BEING TAKEN TO ADDRESS THIS CONCERN.

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(12/15/05 JLG) J. Gosnell provided the following additional information:

"The sample results provided on the 12/14/05 update are inconsistent with the Station's monthly sample results, where they have been sampling for tritium and having an LLD of about 800 pCi/L and not findings results above this LLD. The latest samples are being expedited and the results are hopefully expected back by 14:00 on 12/15/05."

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(12/16/05 SB) Reference IR 434367.

(12/19/05 SOC) CLOSE TO IR 434367.

Reviewed by: JAMES S GOSNELL 12/13/2005 14:08:23 CST

Reviewer Comments:

Since there is a potential historical leak at the blowdown spray house, there is a potential that tritiated water has entered the ground water at the RSH. Since the groundwater flow, according to our contract hydrogeologist, is toward the river, there is a possibility that tritiated water is migrating to the river where it could be introduced into the make-up pump forebays. This has the potential to be introduced into the station drinking water since potable water is drawn from river make-up in the fresh water holding pond. Therefore, I have sampled the potable water system today and expect results back from the lab by Thursday, December 14, 2005. I will update this IR with sample results then. In addition, an ATI is needed for the System Engineer to determine whether this line has been formally abandoned.

Reviewed by: JAMES S GOSNELL 12/14/2005 12:29:22 CST

Reviewer Comments:

Sample results from the lab indicate that there is 6,024 +/- 239 pCi/L of tritium in the Station potable water. The sample was drawn from the New Training Building on 12/13/05 at the lunch room sink. This number is much higher than expected but still well below the 20,000 pCi/L drinking water standard limit. A second round of samples for the purposes of troubleshooting and confirming this value is being drawn today, 12/14/05. For now, the Tritium team, specifically, the Plume Characterization team will investigate this issue. I will provide additional follow up when the 8 troubleshooting/confirmatory samples are analyzed (approximately 1-2 days).

Reviewed by: JAMES S GOSNELL 12/16/2005 10:19:38 CST

Reviewer Comments:

Confirmatory samples drawn on 12/14/05 have been counted by the lab and found to contain no tritium detectable tritium. In addition, the original sample that was reported to have 6024 pCi/L has been recounted and it also had no detectable tritium. A separate IR has been generated to address this and another apparent discrepancy in the Lab's analysis for tritium.

Finally, an ACIT has been made to determine whether the sample line has been formally abandoned and to initiate corrective actions if it has not.

### Assignments

Assign #:	01	Assigned To:		Status:	COMPLETE
Aff Fac:	Braidwood	Prim Grp:	ACAPALL	Due Date:	12/13/2005
Assign Type:	TRKG	Sec Grp:		Orig Due Date:	
Priority:					
Schedule Ref:					
Unit Condition:					
Subject/Description:	POSSIBLE HISTORIC CW BLOWDOWN LEAKAGE FROM LINE OPS01A				
Assign #:	02	Assigned To:		Status:	NTFY/PRI
Aff Fac:	Braidwood	Prim Grp:	A8930TT	Due Date:	05/19/2006

**Assign Type:**

ACIT

**Sec Grp:**

**Orig Due Date:**

**Priority:**

**Schedule Ref:**

**Unit Condition:**

**Subject/Description:**

Determine whether the 2" PS system composite sample line that is the subject of this IR has been formally abandoned. If it has not, then initiate additional action tracking item to either abandon it via the mod process or Interim Abandonment process.

### AR 00435788 Report

<b>Aff Fac:</b>	Braldwood	<b>AR Type:</b>	CR	<b>Status:</b>	APPROVED
<b>Aff Unit:</b>	00	<b>Owed To:</b>	ACAPALL	<b>Due Date:</b>	01/19/2006
<b>Aff System:</b>	PS			<b>Event Date:</b>	12/20/2005
<b>CR Level/Class:</b>	4/D			<b>Disc Date:</b>	12/20/2005
<b>How Discovered:</b>	H02			<b>Orig Date:</b>	12/20/2005
<b>WR/PIMS AR:</b>		<b>Equip Tag:</b>	OPS01A		

#### Action Request Details

**Subject:** CW BD PIPE LEAKING TO SURFACE THROUGH OPS01A

**Description:** Originator: DAVID M JOHNSON Supv Contacted: Jerry Panfil

Condition Description:  
CW BD Pipe leaking to surface through OPS01A, The potential problem was identified in IR 431913.

Immediate actions taken:  
inspected area, wrote IR, Informed OPS

Recommended Actions:  
Close isolation valve to line OPS01A, to isolate leak.

Operable Basis:

Reportable Basis:  
Reviewed reportability manual. Discussed SAF 1.9, ENV 3.1 / 3.2 / 3.4 / 3.5. Water is minimal and is draining to intended water destination. Reviewed with Tidmore and corp tritium team.

Reviewed by: LAWRENCE BROOKS 12/20/2005 20:44:15 CST  
Reviewer Comments:  
Not reportable after reviewing exelon reportability manual

SOC Reviewed by: SHIRLEY J HAYNES 12/21/2005 10:18:20 CST  
SOC Comments:  
(12/21/05 SOC) DOCUMENT CLOSING OF ISOLATION VALVE TO ISOLATE LEAK.

#### Assignments

<b>Assign #:</b>	01	<b>Assigned To:</b>		<b>Status:</b>	AWAIT/C
<b>Aff Fac:</b>	Braldwood	<b>Prim Grp:</b>	ACAPALL	<b>Due Date:</b>	12/25/2005
<b>Assign Type:</b>	TRKG	<b>Sec Grp:</b>		<b>Orig Due Date:</b>	μμ/μμ/μμμμ
<b>Priority:</b>					
<b>Schedule Flef:</b>					
<b>Unit Condition:</b>					