

From: "NXS@NRC.GOV" <nxs@nrc.gov>
To: "SKO@NRC.GOV" <sko@nrc.gov>
Date: Thu, Feb 2, 2006 1:01 PM
Subject: vacuum brker 4 tritium lk

E-140

AR 00448107 Report

Aff Fac:	Braidwood	AR Type:	CR	Status:	APPROVED
Aff Unit:	00	Owed To:	A8930CAP	Due Date:	03/02/2006
Aff System:	CW			Event Date:	01/30/2006
CR Level/Class:	/			Disc Date:	01/30/2006
How Discovered:	H02			Orig Date:	01/31/2006
WR/PIMS AR:		Equip Tag:			

Action Request Details

Subject: TRITIUM FOUND IN GROUNDWATER NORTHEAST OF VACUUM BREAKER 4

Description: Originator: JAMES S GOSNELL Supv Contacted: Al Haeger

Condition Description:

As a result of finding ~900 pCi/L just north of the 4th vacuum breaker valve from the plant on the blowdown line on January 3, 2006, we secured permission to drill additional wells at 2 locations on Will County Forrest Preserve property. The Forrest Preserve property is located north of the vacuum breaker and is known as the Braidwood Dunes and Savanna. We also drilled additional wells at a location directly east of the vacuum breaker valve, on transmission right-of-way. At each of these 3 locations, 2 wells were drilled; 1 shallow and 1 deep. Shallow wells are typically 15 feet deep while deep wells are typically 25 feet deep. These 3 locations are each approximately 150 feet from the vacuum breaker; to the north, northeast, and east. The water from shallow well at the northeast location was sampled on 1/25/06 and analyzed by our contract lab. The lab reported tritium concentration of 24,846 pCi/L on 1/27 which is above the drinking water standard of 20,000 pCi/L. We directed the lab re-count the sample and they reported 24,531 pCi/L for the re-count. In addition, confirmatory samples have been drawn and are being analyzed.

Immediate actions taken:

Ordered a re-count of the original sample. Informed the regulatory team of Tritium II. Ordered confirmatory samples. Informed Will County officials of the potential for a tritium plume to exist on their property. Arranged meeting with Will County officials to secure additional permission for drilling wells at three more well locations to characterize the plume. Please put IR on follow-up so that I can document the results of the confirmatory samples. Results should be available by 2/2/06.

Recommended Actions:

None, the Characterization Team of Tritium II is taking all the actions needed to drill and sample wells to fully characterize the plume. The final results will be included in the final characterization report which is being prepared under the guidance of our contract hydrogeologist, Conestoga-Rovers and legal department.

What activities, processes, or procedures were involved?

Tritium investigation.

Why did the condition happen?

The cause can be attributed to historical spills at this valve. Since the plume has a low concentration near the vacuum breaker (source), it indicates that this plume is not due to an active leak.

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What are the consequences?
 Potential Impact on an Illinois Nature Preserve.

Were any procedural requirements impacted?
 no

Were there any adverse physical conditions?
 none at this time.

List of knowledgeable individuals:
 Ken Ainger
 Al Haeger
 Jim Meister

Repeat or similar condition?
 We are currently investigating 5 plumes.
 1. West side of Turbine Building
 2. Vacuum breaker 1/ditch
 3. Vacuum Breaker 2 & 3 (large plume)
 4. Vacuum Breaker 4
 5. Vacuum Breaker 7

Operable Basis:

Reportable Basis:

Assignments				
Assign #:	01	Assigned To:		Status: AWAIT/C
Aff Fac:	Braldwood	Prim Grp:	ACAPALL	Due Date: 02/05/2006
Assign Type:	TRKG	Sec Grp:		Orig Due Date: mm/mm/yyyy
Priority:				
Schedule Ref:				
Unit Condition:				
Subject/Description:	TRITIUM FOUND IN GROUNDWATER NORTHEAST OF VACUUM BREAKER 4			

From: Steven Orth
To: John Cassidy; John House
Date: Thu, Feb 2, 2006 1:04 PM
Subject: Fwd: vacuum brker 4 tritium lk

FYI.

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