

## Bellamy, Ronald

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**From:** Marc Ferdas  
**Sent:** Thursday, April 16, 2009 11:42 AM  
**To:** Marc Ferdas; Ronald Bellamy  
**Cc:** Neil Sheehan; Scott Barber; Nancy McNamara; Doug Tiff; John White; Ronald Nimitz; Diane Screnci; Jeffrey Kulp  
**Subject:** UPDATE: OC-Potential Tritium Release on 4/15  
**Attachments:** P1010292.JPG; P1010289.JPG

*As of 11 am on April 16, 2009.*

### UPDATES IN BOLD

*This will be the last update provided by Branch 6. DRS (J. White & R. Nimitz) has the lead going forward.*

### ISSUE SUMMARY

On April 15, 2009, Oyster Creek identified water containing tritium inside the Emergency Service Water (ESW) cable vault which is located in the vicinity of the intake structure. Chemistry samples of the water revealed tritium levels of 102,000 pCi/L. Exelon reported to the New Jersey Department of Environmental Protection (DEP) of a potential release of tritium to soil to; and completed a 4-hr ENS notification to the NRC for a notification to another government agency.

### BACKGROUND

On April 13, Oyster Creek began maintenance activities which involved replacement of 4160V electrical cable for the '1-2' ESW pump. In preparation for the work inside the ESW cable vault, water found inside the vault was pumped into drums and sampled per station procedures. The water was sampled for gamma emitters, tritium, and pH. Chemistry samples on April 15 did not identify gamma emitters, had a pH of 7.62, and a tritium concentration of 102,000 pCi/L. The amount of water in the vault and contained into drums is not known at this time. Exelon has stated to external stakeholders that no release is known to be occurring and no release is known to have occurred; and that source of the Tritium water is not currently known.

Exelon's reporting criteria to the New Jersey DEP for tritium is 2,000 pCi/L and where notified on April 15 of the sample results and a potential release of tritium to the soil. It was also iterated to the DEP that the water was contained in a concrete vault and is being pumped into drums. Exelon, also completed a 50.72 4-hr report to the NRC via the ENS due to notification to another government agency.

**The vault is approximately 8 ft x 8 ft with a depth of approximately 16 ft. On April 13, during preparations for the maintenance work Exelon personnel identified approximately 150 gallons of water in the vault. Between April 14 and April 15 the site experienced heavy rains and during that time the vault filled with approximately 12 inches of water (2,000-3,000 gallons was pumped out). Currently there is evidence of water "trickling" from one of the conduits that penetrate the vault. See attached pictures for general location of vault (manway into vault located under tent). Picture of one facing the plant and one facing the intake structure.**

Exelon has initiated a prompt investigation and are making preparations to get independent analysis of the samples performed. **In addition, the site has corporate support in leading an Issues Management Team into this issue. The investigation consists of 3 parts: Communication Plan, Environmental Sampling Plan, and Source Location Plan.**

Shortly after making notification to the DEP the control room received a call from local law enforcement (Lacey Township Police).

**Exelon plans to process the drums that have captured the water in the vault. They are quarantining one drum for future samples if needed.**

**The source of the leakage is not known at this time.**

**EXELON'S ACTIONS**

1. Notification to NJ DEP. -COMPLETE
2. Notification to NRC (50.72 Report)- COMPLETE
3. Perform a Prompt Investigation - INPROGRESS
4. Perform Confirmatory Sample Analysis - INPROGRESS
5. Issue Press Release - TBD
6. Implement Issues Management Team (Communication, Sampling, & Source Location Plans) - INPROGRESS

**NRC'S ACTIONS**

1. Informed Branch Chief of Issue - COMPLETE
2. Inform Public Affairs, SLO & DRS of Issue - COMPLETE (via this email)
3. Monitor Exelon's Activities - INPROGRESS (**DRS has the lead**)
4. Update BC on status - INPROGRESS

**OBSERVATIONS**

None at this time.

**REFERENCES**

Condition Report IR907846

NRC Event Number: 44993, "OFFSITE NOTIFICATION DUE TO POTENTIAL RELEASE OF TRITIUM"

NUREG 1022, Rev2, "Event Reporting Guidelines 10CFR50.72 and 50.73"

*Marc S. Ferdas*

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