

## Sheehan, Neil

---

**From:** John White  
**Sent:** Thursday, April 16, 2009 12:46 PM  
**To:** Peter Wilson; Darrell Roberts; Ronald Bellamy; Marc Ferdas  
**Cc:** Diane Screnci; Neil Sheehan; Nancy McNamara; Doug Tiff  
**Subject:** FW: OC-Potential Tritium Release on 4/15

fyi

---

**From:** Ronald Nimitz  
**Sent:** Thursday, April 16, 2009 11:53 AM  
**To:** Ronald Bellamy; John White  
**Cc:** Neil Sheehan; Marc Ferdas; Scott Barber; Nancy McNamara; Doug Tiff; Diane Screnci; Jeffrey Kulp  
**Subject:** RE: OC-Potential Tritium Release on 4/15

A preliminary call was held with Exelon chemistry and environmental personnel today at 10:45. Marc Ferdas sat in on call. Current/observations/activities:

### 1. Immediate Risk assessment.

Preliminary reviews and discussion has not identified any public or occupational exposure risk. Early March 2009 sampling of 31 wells within the site has not identified any tritium greater than 200 pCi/l. In addition, grab sampling of discharge canal has not identified any tritium. The water contained in the cable vault, about 2000-3000 gallons (more accurate estimate underway) has been drummed and will be processed via radioactive waste processing system. There is no indication of an active leak. Groundwater flow in the upper aquifers is toward west (discharge canal). Onsite drinking water wells are in a deep aquifer and has shown no tritium. These are being monitored. The licensee will be collecting additional discharge canal samples.

### 2. Likely source:

The licensee has no immediate determination as to likely source. There are 31 conduits entering the cable vault which extends down about 6 feet below grade. The vault is located behind the turbine building. The licensee did see a small amount of dripping from one conduit and will look at this as a potential source. The licensee has brought in technical experts to support ongoing reviews including environmental monitoring personnel.

### 3. Licensee plans

The licensee has three plans in development:

#### a. Communication Plan.

This is being developed. There has been no decision to make a public notification at this time. As discussed earlier, the licensee did make a notification to the state of New Jersey and a follow-up to NRC. The State notification was based on a state regulation for reporting hazardous spills and was not made under the NEI Ground water guidance. The licensee believes at this time that excluding the required State notification, which is more restrictive than the NEI reporting criteria, it is not apparent that a separate report per the NEI guidelines would be required.

#### b. Environmental Sampling Plan:

The licensee is establishing a prioritized sampling plan to evaluate current environmental conditions. This will include additional sampling of the discharge canal. The licensee will provide for sample analysis by an offsite vendor laboratory.

#### c. Source Detection plan

The licensee is putting a team together to investigate the source of the tritium.

### 4. NRC Plans:

DRS PS1 is following as well as DRP onsite resident staff.  
An update call will be held tomorrow.

BH

A comm plan is in development.

---

**From:** Ronald Bellamy  
**Sent:** Thursday, April 16, 2009 10:30 AM  
**To:** Ronald Nimitz; John White  
**Cc:** Neil Sheehan; Marc Ferdas  
**Subject:** FW: OC-Potential Tritium Release on 4/15

I have forwarded this to Ron Nimitz who will respond with the answers.

---

**From:** Marc Ferdas  
**Sent:** Thursday, April 16, 2009 10:04 AM  
**To:** Ronald Bellamy  
**Subject:** FW: OC-Potential Tritium Release on 4/15

*Marc S. Ferdas*  
Senior Resident Inspector, Oyster Creek  
Marc.Ferdas@nrc.gov  
609-693-0702

---

**From:** Neil Sheehan  
**Sent:** Thursday, April 16, 2009 9:19 AM  
**To:** Marc Ferdas  
**Subject:** Re: OC-Potential Tritium Release on 4/15

Marc,

Ron called me about this last evening. I would want to know if this find meets the NEI reportability criteria and if so, how Exelon plans to make this information public. I also would want to know ASAP how the water may have gotten in the vault and what the company intends to do to check on extent of condition. Also, any word on whether N.J. plans to make an announcement or post something on its web site about this.

Thanks,  
Neil

Neil Sheehan  
Public Affairs Officer  
Sent From NRC Blackberry

---

**From:** Marc Ferdas  
**To:** Ronald Bellamy  
**Cc:** Neil Sheehan; Scott Barber; Nancy McNamara; Doug Tift; John White; Ronald Nimitz; Diane Screnci; Jeffrey Kulp; Marc Ferdas  
**Sent:** Thu Apr 16 06:46:50 2009  
**Subject:** OC-Potential Tritium Release on 4/15

*As of 8 pm on April 15, 2009.*

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.

Exelon has initiated a prompt investigation and are making preparations to get independent analysis of the samples performed.

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

#### 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

#### 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 (*Will Need DRS Support*)
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*

Senior Resident Inspector, Oyster Creek

Marc.Ferdas@nrc.gov

609-693-0702