

*RTI*

**From:** Anne Boland  
**To:** Peter Habighorst; Raeann Shane; Undine Shoop  
**Date:** 2/15/06 2:35PM  
**Subject:** Fwd: Exelon news release on tritium review program

fyi

Anne T. Boland, Deputy Director  
Division of Reactor Safety  
NRC Region III  
630-829-9701

*C-39*

**From:** Jan Strasma  
**To:** Anne Boland; Cdp1; David McIntyre; Elizabeth Hayden; Geoffrey Grant; Holly Harrington; James Caldwell; jll2; John House; Mark Satorius; Richard Skokowski; Rml2; Scott Burnell; Steven Orth; Steven West  
**Date:** 2/15/06 1:34PM  
**Subject:** Exelon news release on tritium review program

The attached news release was issued this afternoon by Exelon, announcing a program to review potential tritium issues at all 10 of its sites and providing updated information on tritium contamination at Dresden and Byron.

Jan

Jan Strasma  
NRC Office of Public Affairs  
Region III, Lisle IL  
PH630/829-9663  
FX630/515-1096  
rjs2@nrc.gov

**CC:** opafield; Viktoria Mitlyng

## News Release

From: Exelon Nuclear  
4300 Winfield Road  
Warrenville, Ill. 60555

**FOR IMMEDIATE RELEASE**

Contact: Craig Nesbit           630-657-4208  
          Bob Kartheiser         815-406-3554  
          Bob Osgood            815-416-3743

## **Exelon Nuclear To Launch Tritium Inspection Program At Its 10 Nuclear Energy Plants** *Byron blowdown line inspections begin*

WARRENVILLE, Ill. (Feb. 15, 2006) – Exelon Nuclear is launching an initiative across its 10-station nuclear fleet to systematically assess systems that handle tritium and take the necessary actions to minimize the risk of inadvertent discharge of tritium to the environment.

The assessments will take place in 2006 and will cover pipes, pumps, valves, tanks and other pieces of equipment that carry tritiated water in and around the plants.

The initiative is intended to significantly reduce the possibility of a tritium release of the type that occurred in the past involving the lake “blowdown” line at Braidwood Generating Station near Braceville, Ill. While the Braidwood leak poses no health or safety threat to the environment or the public, “we recognize that inadvertent releases are unacceptable and we are committed to eliminating them,” said Exelon Nuclear Chief Operating Officer Charles Pardee.

The initiative also will establish new standards for inspections, responses to, and remediation of tritium releases that have the potential to affect the environment or the public.

Standards for responses to tritium releases would be modeled, in part, after a recent response at the Dresden Generating Station, where intensified monitoring and inspection detected a small underground tritium leak shortly after it occurred. The small leak, which was confirmed by test data over this past weekend, dripped at a rate of about a half-cup per minute and was discovered within a few weeks after it began.

In this case, the suspect pipe was scheduled for replacement as part of a repair and monitoring program undertaken at Dresden. The leak was confined to shallow ground in a small area near the center of the plant property alongside the plant structure and inside the protected security area. It is not expected to approach the edges of the plant property and poses no health or safety threat.

“Our purpose is to ensure that we have a full understanding of the health of our systems that handle tritium, and that we have satisfied ourselves, our stakeholders and the communities in which we are members, that our equipment has a high degree of integrity,” Pardee said. “Just as important, we want to ensure that we are fully prepared to properly respond to a leak should one occur.”

Tritium is a radioactive isotope of hydrogen that is found naturally in small concentrations in most surface water. It is produced in higher concentrations in water used in nuclear reactors and is a normal byproduct of commercial nuclear power production. Tritium is typically discharged into the environment under strict federal guidelines.

The U.S. Environmental Protection Agency has established a safe drinking water limit of 20,000 picocuries of tritium per liter of water.

At Dresden, tritium found in one test well near the center of the plant property measured 500,000 picocuries per liter. Surrounding test wells 10 to 20 feet away showed tritium concentrations of 20,000 picocuries per liter or less, indicating a small area of tritium that dissipates rapidly at the edges. The affected area is believed to be about 30 feet across near the center of the plant's 1,782 acres, adjacent to the plant structure and inside the protected security area. Testing along the site boundary confirmed that no tritium has approached the property edge.

The equipment inspection program announced today has already been initiated at the Byron Nuclear Generating Station in Ogle County, Ill., which is similar to Braidwood in its design. As does Braidwood, Byron uses a blowdown line to release tritium to a nearby river – the Rock River – as part of normal permitted plant operations.

Recent inspections at Byron initiated in response to the Braidwood issue found standing water inside concrete vaults in the ground that are part of the Byron blowdown line, which runs along a strip of company property to the river. The vaults house valves known as "vacuum breakers" that can malfunction and leak. Water in the vaults was tested last week and found to contain a tritium concentration of 86,000 picocuries per liter. Additional engineering work and environmental sampling is being undertaken this week to determine if tritium has migrated into the ground outside the vaults. The Byron tritium concentrations pose no health or safety threat to employees or the public.

In addition to the inspection program, a project team comprised of Exelon Nuclear engineers, chemists and environmental scientists, as well as expert consultants, is looking for technological ways to reduce the amount of tritium produced and released at all nuclear plants. The effort is separate from the inspection program.

"We owe it to our neighbors and our employees to ensure the environmental integrity of our plants," Pardee said. "We take great pride in the positive environmental attributes of nuclear energy, and we must preserve and enhance the notion that there is no cleaner, safer or more reliable way to produce electricity."

###

*Exelon Corporation is one of the nation's largest electric utilities with approximately 5.2 million customers and more than \$15 billion in annual revenues. The company has one of the industry's largest portfolios of electricity generation capacity, with a nationwide reach and strong positions in the Midwest and Mid-Atlantic. Exelon distributes electricity to approximately 5.2 million customers in northern Illinois and Pennsylvania and gas to more than 460,000 customers in the Philadelphia area. Exelon is headquartered in Chicago and trades on the NYSE under the ticker EXC.*