

*ez*  
**From:** Anne Boland  
**To:** Raeann Shane  
**Date:** Thu, Dec 1, 2005 9:01 PM  
**Subject:** Fwd: NRC Notification Re: Braidwood

*OCA*

Just let us know what support that you need - we will be available. We will have a draft of our comm. plan available in the morning and will send it to you for info.

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

*Believe*

*OCA*  
>>> Raeann Shane 12/01/2005 5:12:28 PM >>>

Attached is the e-mail I sent to the hill. I will also be sending a similar one to our Oversight committees to invite them to participate in the phone call tomorrow. I had to leave messages for everyone, but Senator Obama's office did call me back and suggested a time of 11:30 Friday for the briefing.

I will keep you posted tomorrow morning on what I hear from the other offices.

Regards,  
Raeann

Raeann M. Shane  
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**CC:** James Lynch; Steven Orth

*L-10*

**From:** Raeann Shane <sup>UCP</sup>  
**To:** Braidwood  
**Date:** Thu, Dec 1, 2005 5:02 PM  
**Subject:** NRC Notification Re: Braidwood

Good evening:

To follow up on the voice mail that I left for you all I am attaching a copy of the NRC Preliminary Notification of Event or Unusual Occurrence on the tritium leak at the Braidwood nuclear site. I anticipate the issue will generate press interest. Excelon will be putting out a press release on this, possibly sometime Friday.

To recap, the licensee informed NRC of an elevated level of tritium (about 2 times the EPA drinking water limit) found in a monitoring well on site, near the site boundary. It appears that tritium from a previous leak may be migrating toward the site boundary and may have moved off-site. The licensee is taking well water samples from 3 nearby residents and expects to have the results back on 12/2/2005.

NRC is prepared to brief you tomorrow morning via teleconference if you would find that helpful. We are shooting for 11:30. **Please let me know if you would like to participate and if that time will work for you.** I will send out the number to call ASAP tomorrow morning.

Best regards,  
Raeann

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December 1, 2005

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-RIII-05-016

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region III staff on this date.

Facility

Braidwood 1 and 2  
Exelon Generation Co.  
Braceville, Illinois  
Docket: 50-456 and 50-457  
License: NPF-72; NPF-77

Licensee Emergency Classification

Notification of Unusual Event  
 Alert  
 Site Area Emergency  
 General Emergency  
 Not Applicable

SUBJECT: POTENTIAL OFF-SITE MIGRATION OF TRITIUM CONTAMINATION

DESCRIPTION:

On November 30, 2005, the licensee informed the resident inspectors and Region III (Chicago) that elevated levels of tritium (the radioactive isotope of hydrogen) had been measured in groundwater on the Braidwood site and that the tritium may have moved in groundwater off the site.

The licensee believes that the tritium in the groundwater is a result of past leakage from a pipe which normally carries non-radiation circulating water discharge to the Kankakee River, about five miles from the site. Significant leakage occurred from the pipe in November 1998 and December 2000, flooding a portion of the plant site with an estimated 3 million gallons of water in each occurrence. A small leak of a few gallons also occurred in May 2005.

The discharge pipe is also used for planned liquid radioactive effluent releases with the effluent mixing with the non-radiation circulating water being discharged. (Braidwood, like most nuclear plants, releases small concentrations of radioactive liquids under controlled and monitored conditions and within limits imposed by the NRC.) Planned releases were made at the time the leakage occurred in 1998 and 2000 which accounts for the presence of tritium in the groundwater. There have been no planned releases from the plant which exceeded NRC discharge limits.

The licensee has measured tritium levels in shallow onsite monitoring wells as high as 58,000 picocuries per liter. This level of tritium, if released from the site, would be a small fraction of NRC limits for radioactive effluent releases to the environment.

In the vicinity of the onsite monitoring wells where elevated tritium levels have been measured, there are three homes and a larger parcel of vacant land with undeveloped lots. The licensee believes the movement of the groundwater is away from the homes and toward the vacant

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property. The licensee has contacted the homeowners and collected well water samples to be analyzed by an independent laboratory. The licensee is also drilling monitoring wells on the vacant site. The initial sample results are expected to be available on December 2, 2005.

The licensee has notified local officials and the State of Illinois of the elevated tritium measurements. The licensee is also planning to issue a news release.

Region III has dispatched a radiation specialist to the site to assist the resident inspectors in their review of the circumstances surrounding the elevated measurements and the licensee's plans to address the elevated tritium levels.

Region III was notified of the elevated measurements on November 30, 2005. The information in this preliminary notification has been reviewed with licensee management and is current as of 3:30 p.m. on December 1, 2005.