


From: Steven Orth **03**  
To: Braidwood Communications Team  
Date: 1/27/06 9:14AM  
Subject: Update on Braidwood Tritium Contamination

### General Information

The licensee has suspended radioactive liquid discharges since the groundwater contamination was identified on November 30, 2005. Currently, liquid radwaste is being stored onsite in temporary storage tanks. Radioactive liquid discharges will not resume until the blowdown line integrity is verified. Current sample results have identified levels of tritium as high as 285,000 picocuries per liter in deep wells (25') onsite and offsite. Offsite levels in shallow wells have been identified as high as about 59,000 picocuries per liter (non-drinking water well) and at about 1400 - 1600 picocuries per liter in one residential drinking water well. NRC split-sample analyses are ongoing, as are NRC inspection activities to assess the licensee's recovery efforts and plume characterization. Sample results (including independent NRC samples of residential wells) have detected levels of tritium consistent with the licensee's results. As part of that inspection, members of the Region III staff observed the licensee's non-destructive evaluation of sections of the blowdown line. Although the results of that testing are under evaluation, another offsite vacuum breaker failure occurred on January 15, 2006, releasing non-radioactive water onto the ground.

### Updated Information

On December 16, 2005, the State of Illinois Environmental Protection Agency issued the licensee a Violation Notice for contaminating the groundwater. On December 20, 2005 and January 23, 2005, members of the Region III staff participated in meetings between and Illinois Environmental Protection Agency and the licensee in Springfield, Illinois, which the licensee discussed the apparent origin of the contamination, its monitoring program and initial characterization, and the its future plans. Region III and Headquarters staffs (OGC, NRR, OEDO, STP) evaluated regulatory jurisdictional issues at an internal NRC meeting on January 18, 2006.



On Wednesday, January 25, 2006, Chicago media ran front-page reports of the events at the station, and the licensee conducted a media briefing that was also reported. On Thursday, January 26, 2006, Exelon conducted a second meeting with residents living near the Braidwood facility. This meeting was a continuation of the licensee's communication plan with local stakeholders (approximately 25-30 local residents and 2 local news reporters), which was also attended by State regulatory agencies. The topics were the current status of characterizing the tritium contamination, financial remedies, and remediation plans/progress. The residents expressed concerns related to potential health effects, to property values, and to the delay in identifying and communicating the 1998 and 2000 leaks. Region III attended the meeting, and limited questions of the NRC were raised.

Region III plans to complete radiation safety inspection activities in February 2006 and determine any enforcement actions, as appropriate.

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