

From: Steven Orth *RTII*  
To: Jan Strasma  
Date: Friday, January 27, 2006 1:44:18 PM  
Subject: Re: Braidwood meeting with residents

No problem. Thanks for your support last evening. I greatly appreciate.

Have a good weekend,

Steve

>>> Jan Strasma 01/27/06 1:22 PM >>>  
Thanks. I got my place in the slides mixed up....

Jan

Jan Strasma  
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>>> Steven Orth 1/27/06 12:31:34 PM >>>  
Jan,

One clarifying note: The one residential well had about 1550 picocuries per liter of tritium, which would equate to a dose of about **0.3 millirem**. This is based on average consumption of water from that well all year.

The EPA groundwater standard is 20,000 picocuries per liter, which equates to a dose of 4 millirem.

Consequently, the residential well is below 10 percent of the EPA groundwater standard.

Steve

>>> Jan Strasma 01/27/06 12:04 PM >>>  
Exelon held a meeting at the Braidwood station Thursday evening with nearby residents to discuss the status of its ongoing response to the offsite tritium contamination of groundwater. About 40 residents attended the meeting along with representatives of the Illinois Environmental Protection Agency and Illinois Division of Nuclear Safety. Attending for Region III were Steven Orth, plant support team leader; Nick Shah, the senior resident inspector; and Jan Strasma, public affairs officer.

Two reporters attended the meeting, one a stringer for AP radio and WBBM, the all-news CBS-affiliate in Chicago, and a reporter from the Kankakee Daily Journal, who is writing a Sunday piece on the issue. (I have talked by telephone several times with the Daily Journal reporter, and she had not questions for the NRC at the meeting; I did a taped interview with the AP stringer.)

The residents' concerns focused on property values, potential health effects, and why Exelon did not inform residents sooner of the major leaks of water containing tritium which occurred in 1998 and 2000. (Exelon also made passing reference to a leak which occurred in 1996, which had not been previously discussed, but none of the residents noted the additional leak.) They also questioned Exelon's plans to remediate the contamination and prevent recurrences.

The utility also had Eli Port, a professorial health physics consultant, make a brief presentation on tritium, radiation, and health effects. He compared the potential radiation exposure from tritium in well water with

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other sources of natural radiation. The one resident well with measureable tritium (1550 picocuries per liter) would result in a dose of 4 millirem per year, compared to naturally-occurring radiation in other food and drinks of 35 millirem per year and an average annual exposure of 357 millirems per year from natural and man-made sources (principally medical).

Tom O'Neil of Exelon acknowledged that the company had done a "lousy job" in 1998 and 2000. The root cause report is still in preparation, but he said he expects it to say that the plant's procedures were not effective and that the staff was not sensitive to the fact that radioactive effluents, principally tritium, were in the circulating water discharge line that leaked. In 1998 the plant staff treated it as a water leak, confined to the site, and allowed it to evaporate and soak into the ground. In 2000, it was also viewed as an leak confined to the site, but the tritium contamination was recognized and the water was collected and pumped into the discharge line to the Kankakee River. The vacuum breaker problems began in 1996 when the company changed its procedures for the discharge line functions.

"We were wrong," O'Neil said, "and we're taking steps to make it right. We will clean it up so that it won't get into your drinking water." He added, "We don't think this represents a health threat to you."

Exelon reported it had installed 165 test wells on and off the site and collected 312 samples. Three of the offsite sample wells were greater than the EPA drinking water standard of 20,000 picocuries per liter with the highest being about 220,000 picocuries per liter.

The plant has completed accoustical testing of the 5-mile long pipe with no significant leakage identified. Exelon acknowledged, however, that a vacuum breaker had caused a leak that was discovered on Jan. 15 (The vacuum breakers are the components that were the cause of the earlier leaks.) No tritium has been discharged through the 42-inch line since November 23; therefore there was no tritium present in the leakage.

The company's ongoing activities include preparation of an investigation report to submit to Illinois EPA along with development of remediation plans; consideration of measures to prevent future releases including reduction of tritium releases through recycling and evaporation and, possibly, installed a dedicated discharge line, which Exelon would cost "millions of dollars." The company expects cleanup activities to begin in late spring or summer after review by Illinois EPA.

Exelon representatives displayed maps showing the location of monitoring wells and the extent of movement of the tritium contamination offsite. The groundwater moves at a rate of 50 to 100 feet, the company said. The contamination is in groundwater in a sand formation, roughly 30 feet deep, that is underlain by a 20 foot clay layer.

One principal focus of the residents' concerns was their property values, and Exelon said it would compensate the residents for any loss of property values. The company has already agreed to purchase property adjacent to the plant site which was slated for residential development; the sale of the property to a developer had been halted by the discovery of the contamination.

The residents questioned how long Exelon's offer of compensation would be in effect, and several said they would not have purchased their homes had they known that radioactive leaks had occurred that would affect the groundwater.

Exelon has established an information hotline for residents, will set up a web site (<http://www.braidwoodtritium.info>), and will schedule a community-wide meeting in the next few weeks.