App B. (6)

From: Robert Kuntz NRR
To: Mahesh Chawla NRR
Date: 1/3/06 11:06AM
Subject: Fwd: Braidwood Station Tritium Project Progresses

Mac,

Here is a press release about the Tritium issue that Exelon sent out last week. Thought you should see it.

B-19

From: <Alison.MacKellar@exeloncorp.com>
To: <gfd@nrc.gov>, <rfk@nrc.gov>, <jbh1@nrc.gov>
Date: 1/3/06 8:39AM
Subject: Braidwood Station Tritium Project Progresses

Braidwood Station Tritium Project Progresses
Drinking water well tests show no health or safety risk

FROM: Exelon Nuclear Communications

DATE: Thursday, Dec. 29, 2005

INSTRUCTIONS: Please share the following information with your employees as soon as possible.

The text below will be sent out 11 a.m. CT as a news release to local media, Illinois regional media and trade publications:

Environmental workers at the Braidwood Generating Station have made progress in understanding the extent of tritium in groundwater discovered by the plant's environmental monitoring program in November.

Among the more important findings: tests for other radioactive substances in the environment have been negative, and 13 of 14 private wells have shown no sign of tritium beyond background levels. The fourteenth private well showed tritium at a fraction of federal drinking water limits and poses no health or safety risk.

Tritium is an isotope of hydrogen that emits a very low level of radiation. It is produced naturally in the upper atmosphere when cosmic rays strike air molecules and is also produced in nuclear reactors. Tritium exists in water as an isotope of hydrogen - a basic component of water - and carries most of the characteristics of water.

The U.S. Environmental Protection Agency has established an upper limit for tritium concentration in drinking water of 20,000 picocuries per liter. By way of context, a person drinking 2 liters of water a day at that upper limit would receive an annual radiation exposure roughly equal to an airplane flight across the country, about 4 millirem. The average American receives 300 millirem of background exposure annually from natural and manmade sources.

The tritium is believed to come from an underground pipe that passes near the location of the highest tritium concentration. The pipe in the past has carried water containing diluted tritium from the plant to the Kankakee River, where it was periodically discharged under federal guidelines as part of normal plant operations. To ensure there are no current leaks, technicians are conducting a pipe integrity test. No tritiated water is currently in the pipe and no tritium is currently being introduced into the ground.

In the project to determine the extent of and mitigate tritium in groundwater at Braidwood:

* Technicians have analyzed 211 groundwater samples taken from 158 test wells both on and off the plant property and from a 25-acre pond just north of the station.

* The highest concentration of tritium discovered in both on- and off-site test wells was about 226,000 picocuries per liter, at the location where the tritium leak is believed to have occurred. This is in an area remote from private drinking water wells and does not represent a health or safety threat. To date, the next highest concentration found outside of the plant's boundaries was about 59,000 picocuries per liter, from a test well 75 feet north of the property line, the only other well off of the property to show tritium levels above federal drinking water limits. Water from the 25-acre pond measured 2,400 picocuries per liter.

* The Illinois Environmental Protection Agency notified Braidwood and Exelon Nuclear on Dec. 20 that tritium concentrations reported from two offsite wells, the 25-acre pond and five on-site test wells were in violation of the Illinois Environmental Protection Act. The station is required to provide the agency results of its ongoing investigation and plans to resolve the violations by early February.

* Thirteen of the 14 private drinking water wells near the plant showed no tritium above normal background levels. The remaining well showed a low level of tritium about 7 percent (1,524 picocuries per liter) of the federal drinking water limit.

* Tests of water samples from the private, monitoring and test wells showed no radionuclides present in the groundwater other than tritium. This was a standard isotopic test that looks for a range of possible station-produced and naturally occurring radioactive substances.

* Test wells have been drilled along the pipe at the locations of 11 "vacuum breakers" (three on the plant property, eight off), which are devices believed to have caused some past releases of tritiated water. Results from seven of the offsite locations showed no tritium concentrations beyond background. The remaining offsite location, in a remote area on company property 2½ miles from the plant, showed a low level of tritium near the pipe (about 2,000 picocuries per liter), indicating a release there in the past. Additional wells are being dug for confirmatory tests.

* More than 20 full-time technical experts, environmental consultants and others have been assigned to complete the groundwater studies and oversee mitigation of the tritium.

"While the news is generally good and there is no health or safety threat, our goal and obligation is to eliminate this tritium in groundwater and to make sure no tritium is ever again allowed to go where it is not supposed to go," said Exelon Nuclear Vice President Keith Polson, the station's senior executive. "We will continue to work full speed to this end, we will keep everyone informed as we progress and we will take whatever steps necessary in the meantime to ensure the full confidence of our immediate neighbors."

A tritium fact sheet is available at http://www.epa.gov/radiation/radionuclides/tritium.htm