

Braidwood Groundwater Contamination

The licensee has suspended liquid radwaste discharges since the groundwater contamination was identified on November 30, 2005. Liquid radwaste is being stored onsite in temporary storage tanks. Radwaste discharges will not resume until the blowdown line integrity is verified. A licensee meeting with nearby residents took place on December 12, 2005, which Region III staff and State officials attended. Tentative, future licensee meetings with the residents are planned for later in January 2006. A January 26 meeting date has been planned by the licensee.

Current sample results onsite have identified levels of tritium as high as 250,000 picocuries per liter in a deep well (25'). Offsite levels 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. Initial 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. The results of that testing are under evaluation. A sample from the vacuum breaker 4 area, which is located north of Smiley Road, showed 900 picocuries per liter. The licensee indicated that an additional 26-28 residential wells will be sampled. These wells are located north and south of the discharge line that runs to the Kankakee river. RIII has arranged with Braidwood to obtain a portion of each sample for analysis.

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, members of the Region III staff participated in a meeting 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. Following that meeting, the Region, NRR, EDO, and OGC staffs conducted an internal meeting to discuss regulatory authority and preemption. A subsequent NRC internal meeting is scheduled for January 18, 2006, to further discuss the Illinois violations and regulatory jurisdiction issues.

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Background

On November 30, the licensee reported tritium was identified in off-site monitoring wells. 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. Initial sample results (including independent NRC samples of residential wells) have detected levels of tritium consistent with the licensee's results.

On December 16, 2005, the State of Illinois Environmental Protection Agency issued the licensee a Violation Notice for contaminating the groundwater.

Status

Liquid radwaste is being stored onsite in temporary storage tanks. Radwaste discharges will not resume until the blowdown line integrity is verified. As part of that inspection, members of the Region III staff observed the licensee's non-destructive evaluation of sections of the blowdown line. The results of that testing are under evaluation.

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.

The licensee has extended its communications of the incidents to additional members of the public. On January 26, 2006, the licensee issued a letter that has been sent out to the three local zip codes surrounding the site (approximately 2700 addressees). The letter provides the message that has been communicated through the licensee's press briefings – accepting responsibility for the contamination, stating that the contamination poses no health or safety hazard, and describing the licensee's current course of action. The licensee has also developed a WEB site (www.BraidwoodTritium.info) to provide updated information to the public

The licensee is continuing its evaluation of the tritium contamination and its proposals for remediation. Recently, the licensee identified additional contamination in groundwater at an offsite location which is owned by the Forest Preserve District. In one of three groundwater well locations, the licensee measured tritium at about 24,500 picoCuries per liter (shallow well).

NRC split-sample analyses are ongoing, as are NRC inspection activities to assess the licensee's recovery efforts and plume characterization. Region III plans to complete radiation safety inspection activities in February 2006 and determine any enforcement actions, as appropriate.

Meetings

A licensee meeting with nearby residents took place on December 12, 2005, which Region III staff and State officials attended.

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.

E/S

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.

The City of Godley, which is a town immediately SouthWest of the site, conducted a town meeting on February 7, 2006, to discuss the potential impacts from the tritium contamination. The town was previously impacted by diesel fuel oil spills from Braidwood that occurred in the late 1990s. The NRC was invited to attend and did participate as a panel member.

The licensee is planning a "Community Information Night" at some time in February 2006, which Region III plans to attend.