

NRR IHPB Tritium Daily Update
Wednesday February 15, 2006

- On February 16, 2006, NRR staff and representatives of OCA met with Congressman Weller of Illinois to brief him on the status of the tritium groundwater plume at Braidwood plant and the pipe leak at Dresden. Region III Deputy Division Director, Anne Boland participated via telephone. Region III provided the details of the plume's location, radioactive levels, and licensee actions of the inspection at Braidwood, and some information on Dresden. NRR discussed its radiological effluent and environmental monitoring program requirements and the inspection program to highlight its role in ensuring compliance with regulatory requirements.

Congressman Weller expressed his concern about the tritium plume affecting the public's drinking water supply and stressed that the NRC must maintain a strong regulatory position in this matter. He specifically requested that the NRC conduct inspections at all the Illinois nuclear power plants. He also requested that the NRC take their own samples of the ground water independently of the licensee. We agreed to take independent groundwater samples and discuss his inspection of all Illinois plants with senior NRC management.

- On Tuesday Feb 14, experts from around the industry met at Indian Point to discuss their investigations into tritium contamination. The workshop, hosted by members of the Indian Point tritium investigation team, drew participants from Salem, Brookhaven National Lab, Seabrook and Yankee Rowe.
- Exelon Nuclear is launching an initiative across its 10-station nuclear fleet to systematically assess systems that handle tritium and take the necessary actions to minimize the risk of inadvertent discharge of tritium to the environment. The assessments will take place in 2006 and will cover pipes, pumps, valves, tanks and other pieces of equipment that carry tritiated water in and around the plants. The initiative is intended to significantly reduce the possibility of a tritium release of the type that occurred in the past involving the lake "blowdown" line at Braidwood Generating Station.
- On Feb 10 it was announced that The Will County State's Attorney's office has begun an investigation into why Exelon did not disclose until recently a series of radioactive wastewater spills over an eight-year span. The disclosure of the investigation into the leaks at Exelon Corp.'s Braidwood Generating Plant, which occurred between 1996 and 2003, came Thursday during a county board committee meeting discussing the spills. Chicago-based Exelon could face criminal charges if it intentionally discharged tainted water at the plant about 60 miles southwest of Chicago, assistant state's attorney Phil Mock told committee members.
- NRR HP Branch has scheduled a public meeting with the NEI radiation protection task group for March 23 in NRC HQ to discuss industry and NRC actions in response to Tritium and Ground-water contamination.

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NRR IHPB Tritium Daily Update

Tuesday February 21, 2006

- On Monday, February 20, 2006, at the request of Congressman Weller's office, Region III staff participated in a closed meeting in Joliet, Illinois that included the congressman, his staff, and State and local government officials. The meeting was facilitated by Weller as a Q&A session between the local officials and us. The general tone by the locals was one of frustration, concern and some mistrust. Their primary questions and concerns revolved around a lack of notification of local officials and the public regarding the earlier spills, why didn't NRC inspection effort identify this earlier, what can't NRC prescribe the method by which the licensee should fix the issues, and, to a lesser degree, why can't we prevent all releases from the plant. The big issue was the lack of NRC reporting requirements to the locals. Region III agreed to put them on distribution for the current inspection report and in the future if they so desire.
- Region III has commenced a split sampling protocol at the Dresden and Byron stations to verify measurements of tritium in groundwater. At Dresden, the licensee has identified the apparent source of leakage and is preparing a repair plan. Exelon found the leak at the elbow on the B-CST supply line under the tank. They are figuring out how to replace the line keeping CST supported. Currently the CST supply to HPCI is isolated, HPCI is lined up to the suppression pool. At Byron, preliminary sampling results (including nearby private residences) have not detected additional tritium.
- NRR HP Branch has re-scheduled the public meeting with the NEI radiation protection task group to March 22 from 9am to 1pm in NRC HQ. Purpose of the meeting is to discuss industry and NRC actions in response to Tritium and Ground-water contamination. UCS will be invited to attend and Commissioner Jazco has expressed interest in attending.
- NRR staff briefed the NRR Leadership Team (LT) on staff plans to issue a Regulatory Issue Summary (RIS) on Ground-Water Contamination Events at operating and decommissioned reactor sites. The NRR LT concurred on issuing the RIS.

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Wednesday February 22, 2006

- Investigation into the source and extent of a tritium plume on site at Indian Point continues. Samples are obtained regularly from both newly installed wells and existing wells on site. The latest sample results are summarized below from the phase 1 monitoring wells. These wells were installed to characterize the near field tritium plume adjacent to the IP2 spent fuel pool and the IP2 transformer yard.

<u>ID</u>	<u>Date</u>	<u>Location</u>	<u>Sample Results Tritium (pCi/L)</u>
<u>Monitoring Wells</u>			
MW 30	2/7/06	IP2 fuel storage building	511,000
MW- 31	2/7/06	MOB side walk	33,100
MW-32	2/7/06	Near IP2 spent fuel building	17,700
MW-33	2/7/06	Transformer yard	214,000
MW-34	2/7/06	Transformer yard	174,000
MW-35	2/7/06	Transformer yard	84,500
MW-36	2/10/06	IP2 TB adj to disch canal	20,000 @ 26' 47,500 @41' 22,400 @53'
MW-111	2/7/06	Transformer yard	238,000
<u>Off Site Locations</u>			
	2/4/06	Algonquin outfall	ND
	2/4/06	Gypsum plant	ND
	2/4/06	Trap rock Quarry	ND

The test results are generally consist with previous results for those wells that have a trend. The results for MW-36, which is the most recently sampled well from phase 1, are the first set of multi-level samples obtained from that well. Split samples from the phase one monitoring wells were taken on Feb.7. Results have not been received yet from the NRC or DEC. Construction continues on the phase 2 wells, which help characterize the site including IP1 and IP3. No tritium has been found in any off-site location including drinking water supplies.

- The results of samples from the REMP wells near Dresden for January 13, 2006 are as follows:

Thorsen well: 680 pCi/L tritium
Lock and dam well: 40.1 pCi/L tritium
- NRR HP Branch has tentatively scheduled a meeting for March 2 from 3-5pm with NRR Tech Branches, RES, NMSS, and the regions to discuss the SSC degradation that has resulted in tritium in groundwater onsite and offsite. Purpose of the meeting is to get additional insights on the regulatory requirements that apply to maintaining these SSCs in appropriate condition to prevent spills and leaks, and possible NRC actions to address these events.

NRR IHPB Tritium Daily Update

Thursday February 23, 2006

- Region III has the lead for a GT to respond to Congressman Weller's letter to the Chairman dated 2/15/06 which requests the NRC take several actions and provided background info on licensee and agency actions in response to the Braidwood and Dresden tritium issues. Response is due to OEDO by 3/15.
- Sen. Barack Obama (D-IL) is set to introduce legislation requiring nuclear power companies "to inform state and local officials if there is an accidental leak of a radioactive substance." Obama said in a statement, "If potentially hazardous materials are released into the environment, then those families living in the affected communities deserve to be notified immediately," and added, "This is about the public's right to know today, not eight years later." The AP notes that Obama said "relying on the federal government or an image-conscious corporation to disclose the information in a timely manner is insufficient. Obama said he decided to take action after hearing constituents in northern Illinois angry with Exelon."

NRR IHPB Tritium Daily Update

Friday February 24, 2006

- On Friday, February 24, the licensee will complete phase I of the hydrology effort at Indian Point by sampling the last phase I monitoring well, MW-37. MW-37 is on the river side of the discharge canal, and sampling this four-level well will allow the licensee to complete their characterization of ground water flow at the site. The discharge canal provides a barrier between MW-37 and the rest of the wells on the plant side of the canal, so the licensee will be able to evaluate the migration of tritium past the discharge canal and directly into the Hudson River. Sample results are expected on Monday February 28, and Region I staff expects that the licensee will use the results to characterize the tritium releases as uncontrolled, but **monitored**. Region I staff will be conducting the exit meeting for the SIT on Tuesday February 29. Prior to the SIT exit, Region I staff will meet with the licensee and their contractors to discuss the analysis. NRR and RES staff will participate via phone.
- Region III staff have been discussing two findings with the Braidwood licensee regarding the tritium offsite, one for the failure to assess the dose consequences of the spills from the circulating water blowdown line, and the second for the failure to assess the environmental impact. The licensee disagrees with both findings in that they feel that there is no time limit for conducting these evaluations per the SDP, and is expected to pursue this with NEI.
- Region I staff provided the following background on previous tritium indications at Three Mile Island. TMI does take periodic samples from a series of approximately 20 ground water wells onsite. There was one recent (mid 2005) issue where leakage from a corroded blowdown line from an auxiliary boiler (within the protected area) caused one groundwater well to sample at 33,000. The licensee took appropriate actions to identify & stop the leak; pumped the water well area and treated the water. Current samples there are at LLDA.