From: Sybil Kolon

To: Gelman Information
Date: 10/24/2005 12:20:31 PM
Subject: Transmission Pipeline Update

We would like to update you on the status of the north transmission line leak that you may have read about in last week's Ann Arbor News. While this is a very unfortunate circumstance, we do not believe it constitutes a release to previously unimpacted areas. Had there been a new release of 1,4-dioxane, the Department of Environmental Quality (DEQ) would have immediately informed local officials and the public. In the future the DEQ will provide more timely notification for such matters as the public has a right to know.

On July 19, 2005, the DEQ was notified that the north transmission line had been shut down due to a partial loss of flow from the pipeline. This is the pipeline that transports extracted groundwater from the Evergreen subdivision back to Pall Life Sciences' (PLS) treatment building on South Wagner Road. The extraction was shut down until August 1 while PLS hired contractors to investigate the leak. A camera was inserted 300 feet into the pipeline and no leaks were detected up to that point. Based on this information it was believed the leak was back into the contaminated aquifer, about 70 feet below the ground surface (the transmission pipeline and adjacent horizontal extraction wells were purposely installed into the contaminated aquifer). On August 2 PLS resumed extraction and use of the pipeline, with a loss of about 25 gallons per minute (gpm), of a total extraction rate of about 210 gpm. PLS informed the DEQ that they were attempting to locate contractors who could photograph the entire length of the pipeline, and to repair the pipeline, possibly by re-lining it.

On September 19, PLS informed us that they had shut down the extraction and pipeline because the leak had increased to about 100 gpm. PLS contractors have made several attempts over the last few weeks to determine where the leak is. They were able to get a camera farther into the pipeline, but still could not find the leak. It may not be possible for PLS to re-line the pipeline, and they are considering a near-surface (below frost line) pipeline to transport contaminated groundwater to the southern transmission line (which starts at Porter Street and South Wagner Road, where the two sections of the transmission line meet).

On October 20, PLS requested permission to resume operation of the Evergreen extraction wells and the north transmission line as a temporary measure to contain the Evergreen plume while they identify and implement a new method of dealing with the contaminated groundwater. The DEQ conditionally approved this request (conditions listed below), and PLS is re-starting the extraction this morning. This will allow PLS to continue remediation of the Evergreen plume, without which the plume would continue to migrate beyond the extraction wells, requiring additional remedial measures that would impact additional developed areas in Ann Arbor. Some of the water that leaks from the pipeline will be captured by the adjacent north horizontal wells and some of it will migrate back toward the extraction wells in the Evergreen subdivision, where it will be recaptured.

The DEQ is aware of only two residential wells in use for drinking water in the area downgradient of the extraction wells (LB-1, LB-2 and AE-3). One of these was in the process of being connected to city water last week. The other one will be sampled monthly to ensure that the residents are not exposed to concentrations of 1,4-dioxane above the risk-based generic residential cleanup criterion of 85 parts per billion.

CONDITIONS:

- 1. Every two weeks, collect and analyze samples from LB 1, LB-2 & AE-3 and from the north horizontal well for 1,4 dioxane and provide the data to the DEQ within one week of sampling (the purpose of this sampling is to determine the concentration of 1,4- dioxane leaking into the aquifer relative to the concentration present in the aquifer).
- 2. On November 8, 2005, and every two weeks thereafter, provide us with the daily extraction rates from LB 1, LB-2 & AE-3 and from the north horizontal well for the previous two weeks (the purpose of this data is to determine the net loss of water from the north transmission line).

- 3. As previously requested, collect and analyze a sample from the residential well at 545 Allison each month, as this well could be impacted due to the lack of extraction during the past month. This should continue until the DEQ is confident that this well is no longer threatened, or until the home is connected to the city water supply, which will be Pall Life Sciences' (PLS) responsibility if the DEQ determines this well is threatened with 1,4 dioxane contamination above 85 parts per billion.
- 4. Additional sampling and analysis may be requested as needed.
- 5. Provide us with a weekly update of your efforts to permanently resolve this problem.
- 6. Notify the DEQ when the Evergreen System extraction resumes and within 24 hours if the extraction wells are turned off.
- 7. The DEQ reserves the right to rescind this approval if we determine there is any threat to public health, safety, welfare or the environment.

Please contact me if you have any questions.

Sybil Kolon Jackson District Office Remediation and Redevelopment Division Department of Environmental Quality

phone: 517-780-7937 fax: 517-780-7855

e-mail: kolons@michigan.gov