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LETTER FROM AND COMMENTS FROM ILLINOIS ENVIRONMENTAL PROTECTION
AGENCY REGARDING VINYL CHLORIDE DETECT IN LEACHATE SAMPLE LANDFILLS 6
AND 7 FORT SHERIDAN IL
12/2/2010
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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December 2, 2010

Bill Brawner
Headquarters, Department of the Army
Base Realignment and Closure Division (DAIM-BD)
2530 Crystal Drive
Arlington, VA 22202

Re: Fort Sheridan, Landfills 6 and 7
Vinyl Chloride Detect in Leachate Sample
Fort Sheridan, Illinois

0970555001/Lake
Fort Sheridan (BRAC)
Superfund/Technical

Dear Mr. Brawner:

The Illinois Environmental Protection Agency (Illinois EPA or Agency) is in receipt of the Army's December 1, 2010 letter regarding the recent detection of vinyl chloride in the leachate sample from the Leachate Interception Trench (LIT). It was received via electronic mail that same day.

In that letter, the Army discusses the vinyl chloride (VC) detection which was identified during the annual groundwater sampling effort for Landfills 6 and 7, which was conducted on October 6, 2010. It was determined by the Army that the VC detection (0.639 $\mu\text{g/L}$) was a legitimate detect, although it was at a level below the current reporting limit of 1.0 $\mu\text{g/L}$.

According to the Army, "no LIT leachate has been applied to the land since notification and the land application system has been shut down for the winter." The Agency notes that this is in accordance with the approved Land Application System Plan dated March 19, 2008, which requires the shutdown of the system should VC be detected in the leachate.

The Army proposes to collect three additional leachate samples from the LIT for analysis of VC only. These will be collected one per month for three consecutive months beginning in December 2010. Those samples will be collected according to the procedures outlined in the Land Application System Plan. It is then proposed that the results of those three samples will be averaged with the resultant value compared to the 0.32 $\mu\text{g/L}$ value identified as the inhalation carcinogenic risk target at the 10^{-6} risk level (USEPA Regional Screening Level to Soil and Groundwater Table, May 2010). The Army goes on to suggest that if that average value is below the referenced risk value, then the pumping of the LIT leachate and subsequent application on the land application area may be continued in the spring of 2011. If it appears the VC is consistently present in the leachate, the Army proposes the establishment of a site-specific action level for VC.

Illinois EPA is in agreement with collecting those additional samples for VC analysis and with shutting the

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Fort Sheridan Landfills 6 and 7
Vinyl Chloride Detect Letter
Fort Sheridan, Illinois
December 2, 2010
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system down. Land application of the leachate cannot be re-started in the spring until this issue has been properly addressed. However, the State does not concur with the proposed handling of the generated data. Illinois EPA requires the following:

If all 3 samples yield non-detects for VC, the Agency will consider the VC detect an outlier and the Army may continue with the pumping of the LIT leachate and the land application in the spring of 2011.

If even one sample yields another VC detect, the Agency would then consider the VC detects to be evidence that VC is present and, as required in the Land Application System Plan, air modeling to determine the inhalation risk to potential receptors must be conducted to ensure there will be no unacceptable risks to human health or the environment due to volatilization of VC to the atmosphere. If modeling determines there will be no unacceptable risk, then, as above, the Army may continue with the pumping of the LIT leachate and the land application in the spring of 2011. If the risk is determined to be at an unacceptable level, then land application of the leachate must be discontinued until such time as further testing determines that VC is no longer being detected within the leachate or subsequent modeling determines there will be no unacceptable risk to human health or the environment.

If you have any questions regarding anything in this correspondence, you may contact me by telephone at 217/557-8155 or via electronic mail at Brian.Conrath@illinois.gov.

In accordance with Public Act 96-0603, which went into effect on August 24, 2009, any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Respectfully,

Brian A. Conrath

Brian A. Conrath
Remedial Project Manager
Federal Facilities Unit
Federal Site Remediation Section
Bureau of Land

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cc: Bill O'Donnell, Army BRAC
Howard Hickey, US Navy - EFA Midwest
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