State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Scott McCallum, Governor
Darrell Bazzell, Secretary
Ron Kazmierczak, Regional Director

Oshkosh Service Center
625 East County Road Y, Suite 700
Oshkosh, WI. 54901-9731
Telephone 920-424-3050
FAX 920-424-4404

June 27, 2001

Ray Roder
Reinhart, Boerner, Van Dueren, Norris, and Rieselbach
22 E Mifflin Street, Suite 600
Madison, WI 53701

Subject: Five year Review at Ripon City Landfill, HWY FF/NN, Ripon, WI
BRRTS # 02-20-000915

Dear Mr. Roder:

I have reviewed the Five-year Report for the Ripon City landfill submitted by GeoTrans on January 10, 2001. This report summarized the maintenance/monitoring of the remedy implemented by the potentially responsible parties (PRP) group between 1996-2000.

The data submitted in the 5-Year Summary Report indicates that the remedial action taken at the landfill has reduced the threat to human health and the environment. The landfill cap is vegetated and maintained. The gas venting system is venting some of the landfill gases as they are generated within the waste mass, however more work is necessary to determine the degree and extent of gas migration beyond the waste boundary. The landfill cap appears to have reduced the generation of leachate and thus reducing the movement of VOCs from the waste mass to the groundwater. Groundwater quality data indicate that the VOCs in groundwater continue to degrade with VOC concentrations fluctuating over the 5-year period.

The EPA gave final approval of the 5 Year Summary Report on May 22, 2001 drafted by the WDNR. The PRP Group shall continue with site maintenance of the cap, the fence and all the monitoring wells, peizometers, gas vents, and leachate wells. Any repairs should be reported to the WDNR.

Although the five year review report was approved, there are some changes in the monitoring plan and a need for additional investigation of the methane migration. I have the following comments for the next five years of monitoring at the site:

1. Groundwater samples from the monitoring wells should continue on a semi-annual basis at the following monitoring wells: MW-101, MW-103, MW-104, MW-107, MW-112, P-106, P-107, P-107D. These monitoring wells should be sampled for Volatile Organic Compounds (VOC's) and chloride.
2. The 7 private wells (Gaastra, Altnau, Baneck, Hadel, Miller, Weiss, and Rohde) should be sampled every year for VOCs. Sampling of these wells could not be eliminated due to the fact that these wells are the only downgradient private wells of the landfill. The need for-future sampling will be determined at the next 5 year mark in early 2006.

3. Monitoring wells/piezometers P-104, MW-108, P-108, MW-111 and P-111 should be sampled this fall (2001) to aid in determining the downgradient extent of the plume. These monitoring wells should be sampled for VOCs. If these wells are free of contaminants then no further sampling will be needed. If contamination is found in these wells, further monitoring will be required.
4. Water levels should be collected from every well available (monitoring wells and piezometers) when sampling events occur. Please continue entering the data into one master table with all historic water level data.
5. Field data (pH, temperature, conductivity, color, odor, and turbidity) should continue to be measured at every sampling event in both monitoring wells, piezometers, and private wells.
6. Landfill gas measurements (oxygen, carbon dioxide, methane) should continue on a semi-annual basis from the gas vents and leachate wells. Again, continue entering the data into each appropriate historic data table.
7. Sampling of the leachate collection wells (LC-1, 2, and 3) can be eliminated.
8. Reports should be submitted to Jennie Pelczar at the above address in Oshkosh on a semi-annual basis until the 5 year review report is made in 2006. Please include the lab sheets with the chain of custody (COC) forms and the field data. Continue to enter the data into the master data table.
9. All groundwater and private well data and landfill gas data should be submitted electronically using a format acceptable to the Department to Kathy Thompson (608-267-0867) or Dennis Zuniga (608-267-0546) in Madison to be entered into the GEMS database with the waste program. Paper copies of the private well data should also be submitted to Diane Hammel (920-492-5866) in Green Bay.

On June 13, 2001, you submitted a letter with five questions and I have prepared the following responses. First, we are unable to eliminate the sampling at the 7 downgradient private residences due to the fact that they are currently the only private downgradient wells of the landfill being sampled. Up until the last round of groundwater samples in October 2000, two out of the three downgradient monitoring wells (MW's 107, P-107 and 107D), were still showing contamination above the enforcement standard. It may be possible that sometime in the future the monitoring wells and the private wells could be put on a reduced sampling schedule. Reducing the sampling of the monitoring wells is also not approvable at this time. Contaminant concentrations are still fluctuating and have actually increased in MW-104, which is upgradient of the private wells. Leachate sampling has been eliminated and the landfill gas monitoring will need further work. Extremely high levels of methane are currently detected in MW-103 and MW-104 located outside the waste mass. These monitoring wells are not adequately constructed to monitor for landfill gas. For instance, MW-103 is actually installed below the waste mass; methane travels upward thus if the monitoring well is installed below the waste mass it will not be reading the actual amount of methane escaping beyond the boundary of the waste. MW-104 is installed through the waste mass and screened approximately 150 feet below the waste, unable to accurately collect landfill gasses. Under the (ROD) Record of Decision, the passive gas venting system was installed to vent landfill gas. The passive venting is not effective and gas is migrating beyond the waste mass. Therefore, the landfill does appear to be in violation with NR 504.04(4)(e) and NR 506.07 (4). The PRP Group will need to submit a plan to the Department within 90 days to address the methane gas issue. The degree and extent of the methane gas should be determined and then the appropriate action taken.

Second, the only additional indicator parameter that will be requested is chloride. The VOC monitoring will adequately monitor the plumes migration and the chloride value will give us an indication of how much of the chlorinated compounds are degrading. Prior to the R&R programs involvement, the City of Ripon was monitoring for the indicator parameters (from 1983 to 1993). However, in May of 1993 the R&R Program modified the groundwater monitoring plan and eliminated the sampling for indicator parameters. However, field parameters should still be collected during each sampling event.

Third, the private well with the steel casing and the wires sticking up has been properly abandoned. I would suggest that the pipe be cut below the ground for safety and liability reasons.

Fourth, the abandonment of the septic system is under the jurisdiction of Fond du Lac County. . Please check with the County sanitarian for proper abandonment procedures.

Fifth, I am unable to change the 5 year report as it has already been accepted by the EPA. The property to the south was an old residence, and to this date, outbuildings still exist on the property, although you are correct in stating the house has been moved. We will make a note of this information in the file.

The Department commends the PRP Group for its efforts in maintaining this landfill. If you have any questions, feel free to call me at 920-303-5447. Thank you for your cooperation. Please use the BRRTS # on all correspondence to the WDNR.

Sincerely,

Jennie Pelczar
Remediation and Redevelopment Program

cc: NER Oshkosh File
Gerry DeMers - Geotrans Inc.
Bernard Schorle - EPA