



State of Ohio Environmental Protection Agency

Northeast District Office

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Ted Strickland, Governor  
Lee Fisher, Lieutenant Governor  
Chris Korleski, Director

June 23, 2008

RE: **BROOKLYN LANDFILL  
GROUND WATER MONITORING  
NOTICE OF VIOLATION**

**CERTIFIED MAIL**

Mr. Kenneth E. Patton  
City of Brooklyn  
7619 Memphis Avenue  
Brooklyn, OH 44144

Dear Mr. Patton:

The Ohio Environmental Protection Agency (Ohio EPA) Division of Solid and Infectious Waste Management (DSIWM) reviewed the following documents:

Groundwater Monitoring Report for the City of Brooklyn Sanitary Landfill, October 2006 Semi-Annual Groundwater Sampling Event, received on December 22, 2006

Groundwater Monitoring, October 2007, Semi-annual Groundwater Sampling Event, City of Brooklyn Sanitary Landfill, received on December 24, 2007

The reports were submitted by Civil & Environmental Consultants, Inc. on behalf of the City of Brooklyn (City) which is the owner of the landfill. The documents were reviewed for compliance with OAC 3745-27-10(C)(10) of the revised 2003 solid and infectious waste regulation and the facility's site specific ground water detection monitoring plan (GWDMP).

Upon review, Ohio EPA did not identify any issues with the Groundwater Monitoring Report for the City of Brooklyn Sanitary Landfill, October 2006 Semi-Annual Groundwater Sampling Event, received on December 22, 2006. Ohio EPA identified the following violations with the Groundwater Monitoring, October 2007, Semi-annual Groundwater Sampling Event, City of Brooklyn Sanitary Landfill, received on December 24, 2007:

1. **OAC 3745-27-10 (D)(5)(a)(i)(a)** states, in part, that *"for monitoring wells screened within the uppermost aquifer system beneath the sanitary landfill facility, the owner or operator shall, during the active life of the facility, monitor the wells for parameters 1 through 66 in appendix I of this rule."*

Ground water monitoring well W-13 was not monitored for parameter 64 in appendix I of this rule during the 2007 second semi-annual ground water detection monitoring event. The City must monitor all ground water monitoring wells in the ground water detection monitoring system, including ground water monitoring well W-13, for parameters 1 through 66 in appendix I of this rule during future semi-annual ground water detection monitoring events.

2. **OAC 3745-27-10 (D)(5)(a)(ii)(b)** states *"during subsequent semiannual sampling events, at least one sample from each monitoring well screened in the uppermost aquifer system (background and downgradient) must be collected and analyzed for the parameters specified in paragraph (D)(5)(a)(i) of this rule."*

The October 2007 second semi-annual ground water detection monitoring reports indicates that *"W-13 was purged dry the morning of October 9, 2007 and upon return to the well, W-13 only had limited groundwater recharge. The sampling crew was able to fill all sample bottles, except the 500ml unpreserved bottle (chloride), before the well went dry again,"* and *"W-13 was analyzed for OAC 3745-27-10 (Appendix I parameters (1-78) with the exception of chloride, TDS, alkalinity, nitrate-nitrite, and sulfate."*

A review of the field data sheet for ground water monitoring well W-13 contained in the 2007 second semi-annual ground water detection monitoring report indicates that the time between the collection of the ground water sample and the initial well purging event, was only approximately 3½ hours. In the event of very slow recharge, the City needs to wait a sufficient amount of time or attempt to continue sampling collection (with sample collection attempted at least 24 hours) until an adequate water volume can be collected and analyzed for the parameters specified in paragraph (D)(5)(a)(i).

For future semi-annual ground water detection monitoring, the City can reference Chapter 10 GROUND WATER SAMPLING of the OHIO EPA TECHNICAL GUIDANCE FOR GROUND WATER INVESTIGATIONS indicates under on page 10-34 under the sub-section entitled: Purge to Dryness & Sampling, that *"If purging to dryness is unavoidable or inadvertent, then samples should be taken as soon as there is a sufficient amount of water,"* and *"In the case of a well with very slow recharge, sample collection may continue for several days. However, sample collection should be attempted at least every 24 hours. Herzog et al. (1988) concluded that the common practice of next day sampling for low yield, slow recovery wells is adequate. The intervening time should be consistent from event to event."*

3. **OAC 3745-27-10 (D)(5)(a)(iii)** states *"beginning with receiving the results from the first monitoring event collected pursuant to paragraph (D)(5)(a)(ii)(b) of this rule and semiannually thereafter, by statistically analyzing the results from wells screened in the uppermost aquifer system for the parameters specified in paragraph (d)(5)(a)(i) of this rule."*

The October 2007 second semi-annual ground water detection monitoring report indicates that *"As described in Section 21, W-13 did not yield sufficient volume to collect a sample for chloride, TDS, alkalinity, nitrate-nitrite, and sulfate; however, statistical analysis was performed on constituents 1-66 except for chloride (#64)."*

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The City should statistically analyze each ground water monitoring well for all of the parameters specified in paragraph (d)(5)(a)(i).

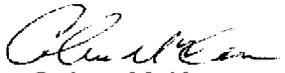
Ohio EPA recommends the City revise the site specific ground water detection monitoring plan to clearly indicate that *"If purging a well to dryness is unavoidable or inadvertent, a ground water sample will be collected within 24 hours, as soon as there is a sufficient amount of water. And in the case of a well with very slow recharge, sample collection may continue for several days until a sufficient amount of water is obtained, with sample collection being attempted at least every 24 hours."* to ensure future conformance with OAC 3745-27-10 (D)(5)(a) of the revised 2003 Solid and Infectious Waste regulations.

Ohio EPA requests that you respond in writing to this notice of violation within thirty (30) days of receipt outlining your steps to return to compliance.

Nothing in this letter shall be construed to authorize any waiver from the requirements of any applicable state or federal laws or regulations. This letter shall not be interpreted to release Lakeside Industrial Park and any other owners of the Property from responsibility under Chapters 3704, 3714, 3734, or 6111 of the Ohio Revised Code or under the Federal Clean Water or Comprehensive Environmental Response, Compensation, and Liability Acts for remedying conditions resulting from any release of contaminants to the environment.

Please contact Doug Dobransky at (330) 963-1147 if you have any technical questions regarding this review. Otherwise, please submit all correspondence to Colum McKenna, Division of Solid and Infectious Waste Management, Northeast District Office, Ohio EPA, 2110 East Aurora Road, Twinsburg, Ohio 44087.

Sincerely,



Colum McKenna  
Environmental Specialist  
Division of Solid and Infectious Waste Management

CM:cl

cc: Doug Dobransky, DDAGW, NEDO  
Laura Travers, CCBH  
Robert Kappler, City of Brooklyn  
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