



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

OHIO E.P.A.

OCT 29 2015

REGISTERED DIRECTOR'S JOURNAL

Timothy Boland
City of Steubenville
115 South Third Street
Steubenville, Ohio 43952

Re: Steubenville City Ldf
Director's Authorization
Approval
Municipal Solid Waste Landfills
Jefferson County
MSWL019399

**Re: Steubenville City Landfill, Jefferson County
Selection of Corrective Measures**

Dear Mr. Boland:

On August 18, 2015, Ohio Environmental Protection Agency (Ohio EPA), Southeast District Office (SEDO) received a revised Corrective Measures Plan (CMP) for the Steubenville City Landfill (Facility). This plan was provided by Bennett and Williams Environmental Consultants on behalf of the City of Steubenville (City), who is the owner of the Facility. Submission of this plan is in accordance with Ohio Administrative Code (OAC) Rule 3745-27-10(F).

The Facility is a closed municipal solid waste landfill that is currently in ground water assessment for statistically significant increases in sodium, chloride, and ammonia in seven downgradient wells. Parameters that have exceeded their prediction limits include: potassium, chloride, sodium, ammonia-nitrogen, barium, arsenic, beryllium, cadmium, chromium, vanadium, and zinc. Three of the wells have also consistently had volatile organic compounds (VOCs) above the practical quantitation limit (PQL). In September of 2012, the City and Ohio EPA signed a consent order that required the City to perform two construction activities at the site. The first activity constructed treatment wetlands to treat two leachate outbreaks at the site. The second activity was to complete final closure and capping of the landfill as sufficient funds become available.

The CMP identifies 14 contaminants of concern and has provided concentration levels for them. U.S. EPA maximum contaminant levels (MCL) were used to set concentration levels for those parameters where an MCL was available. The CMP also establishes reevaluation criteria for each of the 14 contaminants of concern as illustrated in the table below:

Parameter	Concentration Levels	Reevaluation criteria
Chlorobenzene	100 ug/L	Statistically significant increasing trend
Cis-1,2-dichloroethene	70 ug/L	Statistically significant increasing trend
Vinyl chloride	2 ug/L	Statistically significant increasing trend
Arsenic	0.010 mg/L	Statistically significant increasing trend
Barium	2 mg/L	1 mg/L and statistically significant increasing trend
Beryllium	0.004 mg/L	Statistically significant increasing trend
Cadmium	0.005 mg/L	Statistically significant increasing trend
Chromium	0.1 mg/L	Statistically significant increasing trend
Lead	0.015 mg/L	Statistically significant increasing trend
Thallium	0.002 mg/L	Statistically significant increasing trend
Ammonia	30 mg/L	15 mg/L and statistically significant increasing trend
Chloride	250 mg/L	Statistically significant increasing trend
Sodium	100 mg/L	Statistically significant increasing trend
Potassium	82 mg/L	Statistically significant increasing trend

The CMP also includes specific reevaluation criteria for those wells that have VOC detections as illustrated in the table below:

Well	Parameter	Reevaluation criteria	Well specific reevaluation criteria
MW-2	Chlorobenzene	Statistically significant increasing trend	6.6 ug/L
MW-9	Cis-1,2-dichloroethene	Statistically significant increasing trend	35 ug/L
	Vinyl chloride	Statistically significant increasing trend	2 ug/L and statistically significant increasing trend
MW-10	Cis-1,2-dichloroethene	Statistically significant increasing trend	5.0 ug/L

The CMP evaluated three remediation alternatives:

1. No action with long-term monitoring of ground water quality.
2. Capture of leachate seeps and treatment in constructed wetlands.
3. Passive capture of ground water and treatment of captured ground water in constructed wetlands.

Alternative number 2, capturing of leachate seeps and treatment in constructed wetlands, is proposed by the City as the preferred corrective measure. This option requires no additional construction because the treatment wetlands have already been constructed and can be implemented immediately.

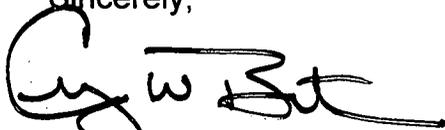
Ohio EPA has reviewed the CMP as described above and determined that it meets the requirements of OAC Rule 3745-27-10(F). Therefore, I select alternative number two, capture of leachate seeps and treatment in constructed wetlands. The City shall implement the selected corrective measure at the Facility as described in the CMP. The City shall implement the selected corrective measures in accordance with the CMP, as received on August 18, 2015.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Ohio Revised Code Section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 made payable to "Treasurer, State of Ohio." The Commission, in its discretion, may reduce the fee if by affidavit it is demonstrated that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High St., 17th Floor
Columbus, Ohio 43215

If you have any questions concerning this letter, please contact Sara Anderson, Ohio EPA, Southeast District Office at (740) 380-5219.

Sincerely,

A handwritten signature in black ink, appearing to read "Craig W. Butler". The signature is stylized with a large initial "C" and "B".

Craig W. Butler
Director

SA/mr

cc: Jefferson County Health Department
Michael Dolak, City Engineer, City of Steubenville
Kerry H. Zwierschke, Bennett & Williams
ec: Joe Laughery, Ohio EPA, DDAGW