



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

CERTIFIED

May 20, 2014

Mr. Alan Bradburn
BFI of Ohio
5092 Aber Road
Williamsburg, Ohio 45176

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

By: Dmytra Cassler Date: 5-20-14

Re: BFI Muskingum Sanitary Landfill
Director's Authorization
Approval
Municipal Solid Waste Landfills
Muskingum County
MSWL019999

**Subject: BFI Sanitary Landfill, Muskingum County
Selection of Corrective Measures**

Dear Mr. Bradburn:

On September 24, 2013, the Ohio Environmental Protection Agency (Ohio EPA), Southeast District Office (SEDO) received a revised request from Civil & Environmental Consultants, Inc., on behalf of Browning-Ferris Industries of Ohio, Inc. (BFI), to implement an updated Corrective Measures Plan (CMP) at the BFI Muskingum County Sanitary Landfill (Facility) in accordance with Ohio Administrative Code (OAC) Rule 3745-27-10(F).

The Facility is a closed municipal solid waste landfill and is currently in assessment monitoring for statistically significant increases in volatile organic compounds (VOCs) and several inorganic parameters in 13 downgradient wells. Ground water impacts appear to be associated with leachate releases and possible strip mining activities.

The CMP addresses the constituents of concern:

Middle Kittanning (SZS) - ammonia, barium, chloride, nickel, potassium, sodium, zinc.

Lower Kittanning (UAS) - 1,1-dichloroethane (1,1-DCA), cis-1,2-dichloroethylene (cis-1,2-DCE), vinyl chloride, ammonia, antimony, arsenic, chloride, nickel, potassium, sodium.

The CMP proposes the following corrective measures to achieve remedial action objectives:

1. Continued operation of the gas extraction system with operation and maintenance enhancements outlined in the CMP;
2. Continued maintenance of the existing landfill cap;
3. Continued operation and maintenance of the leachate collection system; and
4. Continued semiannual monitoring of ground water as outlined in the CMP.

The following table lists the ground water remediation standards (GWRS) for constituents of concern proposed in the CMP:

Constituent of Concern	Units	GWRS MKC	GWRS LKC	Basis for Standard
1,1 DCA	µg/l	NA	252	Risk Based
cis-1,2-DCE	µg/l	NA	70	MCL
Vinyl Chloride	µg/l	NA	2	MCL
Ammonia	mg/l	30	30	Health Advisory
Antimony	mg/l	NA	0.006	MCL
Arsenic	mg/l	NA	0.01	MCL
Barium	mg/l	2	NA	MCL
Chloride	mg/l	250	250	SDWS
Nickel	mg/l	0.1	0.8	Health Advisory (MKC) Background Value (LKC)
Potassium	mg/l	30	30	Background Value
Sodium	mg/l	400	400	Risk Based
Zinc	mg/l	2	NA	Health Advisory

The Corrective Measures Monitoring Plan that is attached to the CMP is in compliance with OAC Rule 3745-27-10 (F)(2)(e), and provides the procedures for evaluating the ground water monitoring data collected during the corrective measures, and describes the process of determining when the CMP needs to be reevaluated. It is anticipated that over time constituents of concern will decrease or remain similar to current concentrations. Should the concentrations of constituents of concern being addressed by the CMP begin to show an increasing trend, Ohio EPA and BFI will begin discussions on additional and/or modified measures that could be implemented to abate continued releases of waste derived constituents to ground water.

Ohio EPA has reviewed the CMP received September 24, 2013, and subsequent revisions and determined that the proposed corrective measures meet the requirements of OAC Rule 3745-27-10(F). Therefore, I approve the corrective measures to be implemented at the Facility as described in the CMP:

BFI shall implement the selected corrective measures in accordance with the CMP as received September 24, 2013 and as subsequently revised.

You are hereby notified that this action of the Director of Environmental Protection (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 action, please contact Erika Jackson, of Ohio EPA, SEDO at (740) 380-5228.

Sincerely,



Craig W. Butler
Director

CWB/EMJ/mr

cc: Muskingum County Health Commissioner
Dave Hunt, DDAGW-SEDO