



RECEIVED
OHIO EPA
2016 DEC 13 PM 2:40
John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

LEGAL OFFICE

DECEMBER 13, 2016

Mr. Allen Bradburn
Republic Services
5092 Aber Road
Williamsburg, OH 45176

Re: BFI CLD Landfill LFG Power Station
Director's Authorization
Approval
Municipal Solid Waste Landfills
Mahoning County
MSWL019386

**Subject: BFI CLD Landfill, Mahoning County
Selection of Corrective Measures**

Dear Mr. Bradburn:

On January 20, 2016, the Ohio Environmental Protection Agency (Ohio EPA), Northeast District Office (NEDO) received a revised Corrective Measures Plan (CMP) for the BFI CLD Landfill (Facility). The plan was submitted by Eagon & Associates, Inc. (Eagon) on behalf of Browning-Ferris Industries of Ohio, Inc. (BFIO, Inc.). The CMP consists of three documents:

- *Corrective Measures Plan, Revision 2, dated January 2016;*
- *Corrective Measures Monitoring Plan, Revision 2, dated January 2016; and*
- *Statistical Analysis and Data Evaluation Program, Revision 2, dated January 2016.*

The Facility is a closed municipal solid waste landfill. BFIO, Inc. currently conducts ground water quality assessment monitoring for twenty-five contaminants of concern in seven distinct assessment areas.

Ohio Administrative Code (OAC) Rule 3745-27-10(F) requires the owner or operator of a municipal solid waste landfill to submit a CMP upon determining, through assessment activities performed in accordance with OAC Rule 3745-27-10(E), that waste-derived contaminants have been detected in the ground water. In accordance with OAC Rule 3745-27-10(F)(10), the director shall select from the CMP the corrective measure which best meets the criteria listed in paragraphs (F)(2), (F)(3), and (F)(7) of the rule.

OAC Rule 3745-27-10(F)(2) requires the CMP to evaluate all practicable remediation procedures which are available for remediating any contamination discovered during assessment monitoring. OAC Rule 3745-27-10(F)(3) requires the CMP to include an evaluation of each proposed remediation procedure.

In accordance with OAC Rule 3745-27-10(F)(7), the CMP shall propose a concentration level for each waste-derived constituent detected in the ground water at a statistically

significant level. In accordance with OAC Rule 3745-27-10(F)(7)(a), the proposed concentration levels are required to be protective of human health and safety and the environment. In accordance with OAC Rule 3745-27-10(F)(7)(b)(i), if there is a maximum contaminant level (MCL) promulgated for the constituent, that shall be used as the concentration level. If an MCL has not been established, the background concentration shall be used unless the director establishes an alternate ground water remediation standard in accordance with OAC Rule 3745-27-10(F)(7)(d).

The CMP was reviewed to determine if it meets the requirements listed in OAC Rules 3745-27-10(F)(2), (F)(3), and (F)(7). Upon review, it has been determined that the CMP includes provisions for semiannual sampling in accordance with OAC Rule 3745-27-10(F)(2); all practicable remediation procedures were evaluated for each assessment area in accordance with OAC Rule 3745-27-10(F)(3); and the ground water remediation standards meet the requirements of OAC Rule 3745-27-10(F)(7).

Ground water remediation standards specified in Table 1 were derived from the following:

- MCL/Secondary MCL (SMCL) where available or Action Level;
- If no MCL/SMCL or Action Level has been established, then generic risk-based values from *Closure Plan Review Guidance for RCRA Facilities* (October 2009) were used;
- If values have not been established in *Closure Plan Review Guidance for RCRA Facilities* (October 2009), then health advisory concentrations from the U.S. EPA's *2012 Edition of the Drinking Water Standards and Health Advisories* were used; or
- If nothing was established by any of the above resources, then dietary levels were used.

After each ground water sampling event, BFIO, Inc. will evaluate the data and determine if the results trigger the evaluation of additional source controls.

Table 1

Ground Water Remediation Standards (GWRS) BFI CLD Landfill								
COC	GWRS for Each Assessment Area, mg/L							Basis for GWRS
	MW-15A	MW-111A/ MW-112B	MW-115C	MW-4A	MW-119C	MW-122C	MW-142C	
Ammonia	30	30		30	30	30		Health Advisory
Potassium	750	750	750	750		750	750	Dietary Level

BFI CLD Landfill LFG Power Station

OAC Rule 3745-27-10(F)(10)

Page 3 of 5

Chloride		250	250			250	250	SMCL
Sodium		400	400			400		Dietary Level
1,1-dichloroethane		0.252				0.252		Ohio RCRA
1,2-dichloroethane		0.005						MCL
1,1-dichloroethylene		0.007						MCL
1,2-dichlorobenzene		0.018						Ohio RCRA
Benzene		0.005						MCL
Chlorobenzene		0.10						MCL
Chloroethane		0.217						Ohio RCRA
Cis-1,2-dichloroethene		0.07			0.07			MCL
Trans-1,2-dichloroethene		0.1						MCL
Tetrachloroethene		0.005						MCL
Trichloroethene		0.005			0.005			MCL
Vinyl chloride		0.002						MCL
Iron		4.54			4.54	4.54	4.54	Ohio RCRA
Cobalt					0.308			Ohio RCRA
Copper					1.3			Action Level
Arsenic						0.01	0.01	MCL
Barium					2.0	2.0		MCL
Beryllium						0.004	0.004	MCL
Nickel			0.1					Health Advisory
Vanadium						0.112		Ohio RCRA
Dichlorodifluoromethane						0.117		Ohio RCRA

Surface water is impacted at the Facility and constructed wetlands treat surface water at three assessment areas: MW-11A/MW-112C, MW-122C, and MW-142C. The wetlands are permitted by the Division of Surface Water and discharge under an NPDES Permit.

The CMP evaluated the five Corrective Measures Alternatives listed below for each of the seven assessment areas:

1. No Action;
2. Corrective Measures Monitoring;
3. Monitored Natural Attenuation;
4. Continued Operation and Maintenance of Implemented Source Control Measures; and
5. Treatment and Monitoring under NPDES Permit.

BFIO, Inc. has proposed a combination of Corrective Measures Alternatives 2, 4, and 5 to remediate the contamination. Alternative 2, "Corrective Measures Monitoring," is proposed by BFIO, Inc. as a corrective measure for all seven assessment areas. Alternative 4, "Continued Operation and Maintenance of Implemented Source Control Measures," is proposed by BFIO, Inc. as a corrective measure for all seven assessment areas. Alternative 5, "Treatment and Monitoring under NPDES Permit," is proposed by BFIO, Inc. as a corrective measure in three assessment areas: MW-111A/MW-112B, MW-122C, and MW-142C. This alternative requires no additional construction as the treatment wetlands have already been constructed and permitted by the Division of Surface Water.

Ohio EPA has reviewed the CMP as described above and determined that the CMP and Corrective Measures Alternatives 2, 4, and 5 meet the requirements listed in OAC Rules 3745-27-10(F)(2), (F)(3), and (F)(7), including the requirement to be protective of human health and safety and the environment. Therefore, I select Alternative 2: Corrective Measures Monitoring; Alternative 4: Continued Operation and Maintenance of Implemented Source Control Measures; and Alternative 5: Treatment and Monitoring under NPDES Permit as those to be implemented at the Facility. BFIO, Inc. shall implement the selected Corrective Measures Alternatives at the Facility in accordance with the CMP, as received January 20, 2016.

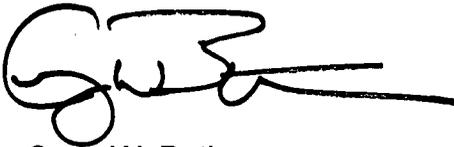
You are hereby notified that this action of the Director of Environmental Protection (director) is final and may be appealed to the Environmental Review Appeals Commission pursuant to Ohio Revised Code Section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds 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 letter, please contact Clarissa Gereby, Ohio EPA, Northeast District Office at (330) 963-1224.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. Butler', with a long horizontal flourish extending to the right.

Craig W. Butler
Director

CWB:CG:cla

cc: Mahoning County Health Department

ec: Mark Caetta, Ohio EPA, NEDO, DDAGW
Allen Bradburn, Republic Services
Joe Montello, Republic Services

Project IDs# 5730, 5731, 5732, 7006, 7004