



State of Ohio Environmental Protection Agency

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Ms. Connie Dall, Environmental Manager
Browning-Ferris Industries of Ohio, Inc.
5092 Aber Road
Williamsburg, Ohio 45176

**RE: Bigfoot Run Sanitary Landfill, Warren County
Ohio Administrative Code (OAC) Rule 3745-27-13 Authorization**

Dear Ms. Dall:

On August 13, 2008, the Ohio Environmental Protection Agency (Ohio EPA), Division of Solid and Infectious Waste Management (DSIWM), Southwest District Office (SWDO), received a request titled "Seep Collection Trench, Rule 13 Cap Disturbance Application, Bigfoot Run Sanitary Landfill". The document, dated August 12, 2008, was submitted pursuant to Ohio Administrative Code (OAC) Rule 3745-27-13(E). Browning-Ferris Industries of Ohio, Inc. (BFIO) requested authorization to engage in filling, grading, excavating, building, drilling, or mining activities in order to install an interceptor trench and sump to collect liquid currently seeping from the north end of the east slope of the Bigfoot Run Sanitary Landfill (Facility) located in Warren County. The Facility was a licensed solid waste landfill from 1969 until 1999 and is regulated under OAC Rule 3745-27-13(D)(1).

Based upon a review of the request submitted August 13, 2008, I have determined, pursuant to OAC Rule 3745-27-13, that the proposed activities, if conducted in accordance with the request and the following conditions, will not result in a violation of applicable laws or regulations, will not create a nuisance, and are unlikely to adversely affect the public safety or health or the environment. Therefore, BFIO and/or their appointed representative are hereby authorized to perform the activities outlined in this letter in accordance with the submitted plans, specifications, and information. This approval is subject to the following conditions:

CONDITIONS

1. This approval grants authorization to install an interceptor trench and sump at the Facility in accordance with the request titled "Seep Collection Trench, Rule 13 Cap Disturbance Application, Bigfoot Run Sanitary Landfill" dated August 12, 2008, only. All activities shall be conducted in strict accordance with the plans, specifications, and information submitted as part of this request. There may be no deviation from the approved plans without prior written authorization from Ohio EPA. Any future activities may require additional Ohio EPA approval.

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

2. Not later than seventy-two (72) hours prior to the start of activities associated with this authorization, BFIO shall submit written notification which specifies the anticipated date of work commencement to Ohio EPA, DSIWM, SWDO and the Warren County Combined Health District.
3. All on-site activities shall be performed in a manner that prevents migration of leachate, explosive gas, or toxic gas from the Facility.
4. All activities undertaken shall not create a nuisance and shall not adversely affect public safety or human health or the environment.
5. All solid and/or hazardous waste to be removed from the Facility shall be containerized and securely stored until these materials are properly characterized and disposed in accordance with Ohio Revised Code (ORC) Chapter 3734 and the regulations promulgated thereunder.
6. All liquids, semi-solids, industrial wastes, and other wastes regulated by ORC Chapter 6111 that are removed during intrusive activities shall be containerized and securely stored until these materials are properly characterized and disposed in accordance with ORC Chapter 6111 and the regulations promulgated thereunder.
7. Prior to any removal of waste or contaminated soil from the Facility, BFIO shall submit copies of sample analysis results, the treatment or disposal method selected, and a letter of acceptance from the treatment or disposal facility to Ohio EPA, DSIWM, SWDO pursuant to OAC Rule 3745-27-13(H)(4).
8. Not later than sixty (60) days after completing the activities authorized by this approval, BFIO shall submit to Ohio EPA, DSIWM, SWDO a certification report in accordance with OAC Rule 3745-27-13(H)(10).
9. All on-site activities shall be accomplished in compliance with all applicable state and federal laws and regulations pertaining to environmental protection, including, but not limited to, the control of air pollution, leachate, surface water runoff and runoff, and protection of ground water. Surface water control structures shall be constructed, as needed, to divert water around the construction site. For the purposes of erosion control during all phases of construction at the Facility, BFIO shall use Best Management Practices (BMP) standards as specified in the National Resource Conservation Service manual titled *Rainwater and Land Development*.
10. BFIO shall take measures to control fugitive dust and other air emissions that may result from activities authorized by this action.
11. Any portions of the landfill where the final cover system is removed or damaged by activities conducted pursuant to this approval, excluding penetrations backfilled in accordance with the authorization, shall have the final cover system re-established in accordance with the following specifications:

- a. Material specifications:
 - i. 100% of the material particles shall pass a 10 inch screen, with no more than two particles from a 50 cubic foot sample retained on a six inch screen;
 - ii. At least 95% of the material particles shall pass a three inch screen;
 - iii. At least 70% of the material particles shall pass the Number 10 sieve;
 - iv. The material that passes the Number 10 sieve (sand, silt, and clay fractions) shall be classified using the USDA textural classification chart as loam, sandy loam, silty loam, clay loam, silty clay, or sandy clay, or an acceptable alternative soil type with concurrence from Ohio EPA.
- b. Construction Specifications:
 - i. Compaction criteria:
 - (a). The material shall be compacted to at least 95% of the maximum Standard Proctor Density (ASTM D-698) or 90% of the maximum Modified Proctor Density (ASTM D-1557).
 - (b). The material shall be compacted using loose lifts, no greater than eight inches thick prior to compaction.
 - ii. The cap shall have a permeability determined by field permeability methods of no greater than 1×10^{-5} cm/sec or a permeability determined by laboratory permeability methods of no greater than 1×10^{-6} cm/sec as determined by the acceptable testing methods outlined in Condition 6. c. iv.
- c. Testing Specifications:
 - i. The suitability of the soils shall be determined prior to their intended use in cap construction. The following tests shall be performed on representative soil samples at least once for every 3,000 cubic yards of material intended for use.
 - (a). Sieve and hydrometer testing (ASTM D-422) for particle size gradation; and
 - (b). Moisture/density relationship using either Standard Proctor (ASTM D-698) or Modified Proctor (ASTM D-1557) method.

- ii. Prior to testing, the samples shall be screened to remove any particles larger than three inches. Written results of testing shall be submitted to Ohio EPA, NWDO in the form of a soils prequalification report not later than seven days prior to its intended use in cap construction.
- iii. During construction of the cap, compaction shall be monitored to ensure that the proper specifications are met. This can be accomplished by a number of methods, including nuclear densimeter (ASTM D-2922), sand cone (ASTM D-1556), and rubber balloon (ASTM D-2167). The nuclear densimeter test, if used, shall be performed at least five times per acre per lift. The sand cone or rubber balloon methods shall be performed at least three times per acre per lift.
- iv. Upon completion of construction, the permeability of the cap shall be determined through either field permeability testing (ASTM D-6391: Boutwell two-stage permeameter, ASTM D-5093: SDRI) or through laboratory testing of cap samples brought to the lab for analysis (ASTM D-5084: Shelby tubes, soil blocks). The permeability requirements for each type of permeability determination are as follows:
 - (a). For field permeability tests (ASTM D-6391, ASTM D-5093), the required permeability of the cap is 1×10^{-5} cm/sec.
 - (b). For laboratory permeability tests (ASTM D-5084: Shelby tubes, soil blocks), the required permeability of the cap is 1×10^{-6} cm/sec.
- v. Any penetrations into the cap layer resulting from either compaction or permeability testing shall be repaired using bentonite or a bentonite/soil mixture.

12. In accordance with OAC Rule 3745-27-13(M), this authorization shall terminate three (3) years after its effective date if BFIO has not begun the activities authorized herein.

13. The Director may revoke this authorization if BFIO violates, or is likely to violate, any applicable law or if continued implementation of the approved plans may cause a threat to public safety or health or the environment.

14. Nothing in this letter shall be construed to authorize any waiver from any requirements of applicable state solid waste laws or regulations. This authorization shall not be interpreted to release BFIO or others from responsibility under ORC Chapters 3704, 3714, 3734, or 6111; under the Federal Clean Water Act, the Resource Conservation and Recovery Act, the Toxic Substances Control Act, or the Comprehensive Environmental Response, Compensation, and Liability Act; or from other applicable requirements for remedying conditions resulting from any release of contaminants to the environment.

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You are hereby notified that this action of the Director of Ohio EPA (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 which the Commission, in its discretion, may reduce if by affidavit you demonstrate 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
309 South Fourth Street, Room 222
Columbus, Ohio 43215

If you have any questions concerning this authorization, please contact Holly Hillyer of Ohio EPA, SWDO at (937) 285-6072.

Sincerely,

Chris Korleski
Director

cc: Scott Hester, DSIWM-CO
Tracy Buchanan, DSIWM-SWDO
Larry Wisner, Warren County Combined Health District