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ENTERED DIRECTOR'S JOURNAL

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

CERTIFIED

April 12, 2013

Mr. Tim Haaf
Closed Sites Manager
Waste Management
851 Robinson Rd., East
Erie, Pennsylvania 16509-5339

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: DM Cassler Date: 4-12-13

**RE: East Liverpool Landfill, Columbiana County
Corrective Measures Plan – Selection of Corrective Measures**

Dear Mr. Haaf,

East Liverpool Landfill, Inc. (Facility) is a closed municipal solid waste landfill that triggered mandatory closure on January 1, 1999. The Facility is subject to the requirements of Ohio Administrative Code (OAC) Rule 3745-27-10(F). On May 8, 2012, the Ohio Environmental Protection Agency, Northeast District Office (NEDO) received a Corrective Measures Plan titled *Corrective Measures Plan, Revision 1, East Liverpool Landfill, Columbiana County, Ohio* dated May 4, 2012. This document was prepared by Eagon & Associates, Inc. on behalf of Waste Management of Ohio, Closed Sites Group and was submitted pursuant to OAC Rule 3745-27-10(F).

Waste Management of Ohio, Closed Sites Group (Owner) initially submitted a Corrective Measures Plan (CMP) to Ohio EPA NEDO on June 26, 2006. In a letter dated December 22, 2008, Ohio EPA notified Waste Management that it had failed to make an adequate determination of the rate, extent, and concentration of waste derived constituents impacting ground water at the Facility and that revisions to the document were required prior to conducting further review.

Ohio EPA received and reviewed a document titled "2011 Second Semiannual Ground Water Assessment Results and Determination of Rate and Extent, East Liverpool Landfill", dated December 2011, and concluded in a letter dated March 1, 2012, that the Facility adequately determined the rate, extent, and concentration of all waste derived constituents in the ground water at the Facility. On May 8, 2012, DMWM, NEDO received the document titled "Corrective Measures Plan, Revision 1, East Liverpool

Landfill, Columbiana County, Ohio”, dated May 4, 2012. The document was prepared by Eagon & Associates, Inc. on behalf of the Owner.

Ohio EPA has reviewed the May 4, 2012, CMP and has determined that it fulfills the requirements of OAC Rule 3745-27-10(F). Therefore, pursuant to OAC Rule 3745-27-10(F)(10), I hereby select the following corrective measures for the Facility: Natural Attenuation with Continued Ground Water Monitoring. The Owner shall implement the May 4, 2012, CMP at the Facility and shall comply with the following conditions:

CONDITIONS

1. The Owner shall modify the CMP to establish re-evaluation levels in accordance with the following table:

Waste Derived Constituents	Units	Re-evaluation Level
Upper Freeport Coal / Mine Spoil Equivalent (UAS)		
Ammonia	mg/L	5
Barium	mg/L	1
Chloride	mg/L	80
Copper	mg/L	0.5
Zinc	mg/L	1.5
Mahoning Coal / Mine Spoil Equivalent (SZS)		
Ammonia	mg/L	2.5
Barium	mg/L	1.5
Chloride	mg/L	40

2. The Owner shall amend the site-specific CMP to incorporate a methodology to be used to evaluate whether the concentration of any waste derived constituent (WDC) listed in Condition 1 is greater than the corresponding re-evaluation levels listed in Condition 1 at any monitoring well sampled as part of the corrective measure. If statistics are utilized as part of this methodology, then the statistical method used shall comply with OAC Rules 3745-27-10(C)(6) and (7).
3. Using the methodology incorporated pursuant to Condition 2, if the concentration of a WDC listed in Condition 1 is greater than the re-evaluation level listed in Condition 1 at any monitoring well sampled as part of the corrective measure, the Owner shall:
 - a. Resample to confirm that the concentration of the WDC in the well is greater than the re-evaluation level specified in Condition 1.

- b. If the resample does not confirm that the concentration of the WDC in the well is greater than the re-evaluation level specified in Condition 1, resume routine corrective measures ground water monitoring in accordance with the approved CMP and OAC Rule 3745-27-10.
4. Using the methodology incorporated pursuant to Condition 2, if the resample confirms that the concentration of the WDC in the well is greater than the re-evaluation level specified in Condition 1, then:
 - a. The Owner shall notify Ohio EPA, NEDO of the confirmed exceedance not later than 75 days after withdrawing the initial sample for analysis from the well that demonstrates an exceedance.
 - b. The Owner shall sample the well with the exceedance for all constituents specified in Appendix II of OAC Rule 3745-27-10 not later than 30 days after notifying Ohio EPA, NEDO of the exceedance.
 - c. Not later than 60 days after sampling according to Condition 4.b., the Owner shall sample all remaining wells sampled as part of the approved corrective measures for all constituents determined to exceed background concentrations at the well sampled according to Condition 4.b.
5. The Rate and Extent of migration and the Concentration (REC) of the WDCs with any confirmed exceedances, and any constituents specified in Appendix II of OAC Rule 3745-27-10 detected above background levels, shall be determined and the results submitted to Ohio EPA not later than 180 days after receiving analytical results from sampling pursuant to Condition 4.b.
6. If the results of the REC determination indicate a significant change (e.g. large confirmed increases exceeding the re-evaluation levels of known WDC concentrations as specified in Condition 1, or detection of new WDCs detected from sampling constituents specified in Appendix II of OAC Rule 3745-27-10 not previously impacting ground water) to the previous determination of REC, the Owner shall evaluate all source controls that are reasonable and practicable. This evaluation shall be submitted to Ohio EPA within the same 180-day period as required for submittal of the REC determination pursuant to Condition 5 and shall include a proposal to modify the corrective measure in accordance with the requirements of Condition 8.
7. If the results of the REC determination do not indicate a significant change (e.g. small confirmed increases exceeding the trigger levels of known WDC concentrations as specified in Condition 1 with no exceedances of a ground water

remediation standard, and no detections of new WDCs not previously impacting ground water) to the previous determination of REC, the Owner shall submit to Ohio EPA a proposal to modify the CMP to incorporate new re-evaluation levels for the table in Condition 1 within the same 180-day period as required for submittal of the REC determination pursuant to Condition 5.

8. If the provisions of Condition 6 apply, then the Owner shall submit a request to modify the approved corrective measures for Director's approval. This request for modification shall be submitted to Ohio EPA within the same 180-day period as required for submittal of the REC determination pursuant to Condition 5. The modification request shall reflect the changed conditions of the site. The modification request shall propose one or more of following:
 - a. Additional source control measures to be implemented by the Owner to prevent further releases to waters of the state to the extent both reasonable and practicable.
 - b. If a ground water remediation standard established in accordance with OAC Rule 3745-27-10(F)(7) is exceeded, or if the results of the REC determination identify the presence of new WDCs detected from sampling constituents specified in Appendix II of OAC Rule 3745-27-10 not previously known to be impacting ground water, then the Owner shall complete an evaluation of all potential active remediation measures pursuant to OAC Rule 3745-27-10(F)(2) and (3) and select the most effective active remediation measure for implementation. The Owner shall provide the detailed procedures and timeframes to implement the selected remediation measure.
 - c. If the ground water remediation standard(s) are not exceeded, then new re-evaluation level(s) shall be established for the table in Condition 1.
9. The Owner shall submit Corrective Measures Ground Water Monitoring and Statistical Analysis Plans to Ohio EPA, NEDO not later than ninety (90) days after the effective date of this letter, or thirty (30) days before the next regularly-scheduled sampling event, whichever is sooner. The Corrective Measures Ground Water Monitoring and the Statistical Analysis Plans, and any subsequent revisions made thereto, shall comply with all applicable requirements of OAC Rule 3745-27-10 and the provisions specified in Condition 2. The Statistical Analysis Plan shall include all statistical methods used at the Facility to evaluate ground water analytical data generated under the CMP.

Mr. Tim Haaf
Closed Sites Manager
Waste Management
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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 Street, 17th Floor
Columbus, Ohio 43215

If you have any questions concerning this letter, please contact Mark Kroenke or Jerry Weber of Ohio EPA, Northeast District Office at (330) 963-1200.

Sincerely,



Scott J. Nally
Director, Ohio EPA

cc: Mr. Scott Hester, DMWM, CO
Mr. Jerry Weber, DMWM, NEDO
Mr. Mark Kroenke, DDAGW, NEDO