



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

OHIO E.P.A.

FEB 22 2016

ENTERED DIRECTOR'S JOURNAL

FEB 22 2016

Edward Kilbarger  
Kilbarger Construction, Inc.  
P.O. Box 946  
Logan, Ohio 43138

Re: Athens-Hocking Reclamation  
Director's Authorization  
Approval  
Municipal Solid Waste Landfills  
Athens County  
MSWL018746

**RE: Athens-Hocking Reclamation Center (AHRC) Landfill, Athens County  
Selection of Corrective Measures**

Dear Mr. Kilbarger:

On September 4, 2015, the Ohio Environmental Protection Agency (Ohio EPA), Southeast District Office received a revised Corrective Measures Plan (CMP) for the Athens Hocking Reclamation Center Landfill (Facility). This plan was submitted by the consulting firm of Burgess and Niple on behalf of Kilbarger Construction, Inc. (Kilbarger) and the Mark James Corporation. Submission of this plan is in accordance with Ohio Administrative Code (OAC) Rule 3745-27-10(F).

The Facility is an operating municipal solid waste landfill, which was permitted in March of 1983. The Facility consists of four contiguous waste disposal cells (Phases I-IV), three of which are capped and closed. Closed Phases I, II, and III were constructed with a five foot thick recompacted clay liner and no leachate collection system. Since 1994, Phase IV has been designed and constructed using Best Available Technology (BAT) standards, which includes geosynthetic membrane liner and leachate collection systems.

In November 1997, the Facility entered into ground water assessment for statistically significant increases of several inorganic constituents. Eight ground water monitoring wells were identified as having been impacted. The source of the ground water release is believed to be the early pre-BAT cells.

The revised CMP identified the following 13 constituents that were determined to have elevated concentrations in at least one ground water monitoring well: ammonia, arsenic, barium, calcium, chloride, iron, magnesium, manganese, nitrate/nitrite, sodium, sulfate, total alkalinity, and total dissolved solids. While not every constituent was determined to be elevated in every monitoring well, all of the constituents will be evaluated at each monitoring well as outlined in the CMP. The following eight impacted ground water monitoring wells are addressed by the CMP: MP-6, MP-8R2, MP-10, MP-11, MP-12B, MP-12C, MP13-B, and KW-11. The following six delineation ground water monitoring wells will

also be sampled as part of the CMP: TW-13, TW-14, TW-15, TW-17, TW-18, and TW-21. Table 4 of the CMP contains specific information regarding the impacted wells and the established contaminant concentration levels (CCLs) for each well. The CCLs as proposed by the Facility represent the ground water remediation standards as outlined in OAC Rule 3745-27-10(F).

The CMP includes provisions for semiannual sampling and evaluation of ground water quality at the above-noted impacted wells for the OAC Rule 3745-37-10 Appendix 1 parameter list. The plan also includes provisions for evaluating ground water quality and determining if any of the constituents of concern are increasing over time. Included in the CMP are provisions to evaluate the following potential scenarios:

1. Results below the CCL with no increasing data trend
2. Results below the CCL with an increasing data trend
3. Results above the CCL with no increasing data trend
4. Results above the CCL with an increasing data trend

As noted in the CMP, the effects of elevated concentrations of waste derived constituents on human health, safety, or the environment will be evaluated, and if recommended by Kilbarger or requested by Ohio EPA, alternate corrective measures options will be examined.

The CMP evaluated the following five corrective measures alternatives:

1. No Remediation with Routine Cap Maintenance
2. Aggressive Cap Maintenance
3. Extension of Existing Leachate Toe Drain
4. Removal and Disposal of Waste
5. Pumping of Ground Water

The Facility has recommended that Alternative 2 and Alternative 3 be selected as the corrective measures to address the release of waste-derived constituents at the Facility.

Ohio EPA has reviewed the revised CMP for the Facility and has found the plan to be in compliance with OAC Rule 3745-27-10(F). Therefore, I select Alternatives 2 and 3 as the corrective measures to be implemented at the Facility as described in the CMP. Kilbarger shall implement the selected corrective measures in accordance with the CMP, as submitted to Ohio EPA on September 4, 2015.

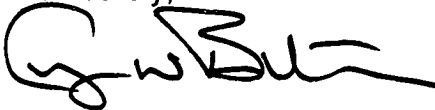
You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Ohio Revised Code Section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The 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., 17<sup>th</sup> Floor  
Columbus, Ohio 43215

If you have any questions concerning this letter, please contact Dan Bergert, Ohio EPA, Southeast District Office at (740) 380-5438.

Sincerely,



Craig W. Butler  
Director

CB/DB/mr

ec: Mike Cooper, Athens City-County Health Department  
Mark Ruof, The Mark James Corporation  
Dan Bergert, SEDO-DMWM  
Steve Lowry, SEDO-DDAGW