



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

## DEPARTMENT OF NATURAL RESOURCES

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Mr. Brian Power  
Area Environmental manager  
Republic Services, Inc.  
Bridgeton Landfill, LLC  
13570 St. Charles Rock Road  
Bridgeton, MO 63044

RE: January 15, 2014, Landfill Gas Corrective Action Plan Update, Bridgeton Landfill, LLC,  
Permit Number 0118912, St. Louis County

Dear Mr. Power:

This letter is in response to Republic Services, Inc.'s submittal entitled "Landfill Gas Corrective Action Plan Update- Bridgeton Landfill" (LGCAP Update) dated January 15, 2014, and received by the Missouri Department of Natural Resources' Solid Waste Management Program (SWMP) on January 17, 2014. The document was submitted pursuant to Section 23 of the First Agreed Order Case No. 13SL-CC01088. The LGCAP Update was prepared by Feezor Engineering, Inc., submitted and sealed by Daniel Feezor, P.E.

The submittal provides the SWMP with Bridgeton Landfill's quarterly methane gas corrective action plan update including monitoring data from November 7, 2013, through December 27, 2013. The report also provides a review of the current status of gas migration control measures at the facility.

### **Comment:**

It appears some of the column titles and calculations in gas monitoring Data Tables 2, 3, 4 and 5 are incorrect. Check to ensure all titles and calculations are correct. Please make any needed corrections and include corrected tables for this quarter in the next quarterly report due April 15, 2014.

### **Updates included in the report since the November report:**

- Discussion of observations made regarding methane content at the probes.
- List of landfill gas monitoring probes, abbreviations, identifiers and frequency.
- Tables of gas monitoring data by probe type including weekly water level readings for the period November 7 to December 27, 2013.
- Graphs including methane data by probe for the period November 1, 2012, to December 27, 2013.

- List of recent gas migration control efforts completed.
  - October 2013 – 42 acres of ethylene vinyl alcohol (EVOH) cap and enhanced gas collection features.
  - September 2013 – installation of two utility flares.
  - After November 2013 – a liquid force main at LCS-1 with a pump operating at 15 gpm.
  - January 15, 2014 – 75% of the additional force main to allow for increased vacuum on the landfill gas collection system.
  - November 2013 – a heat exchanger and cooler unit for the main flare compound and one on the east flare.
  - October 2013 – installation of a 200-hp compressor to improve the efficiency of the larger number of gas collection points.
  - End of December 2013 – installation of 21 new or replacement gas extraction wells (GEWs). From other submittals, we understood there remains 9 GEWs to be drilled. Please clarify the number of new/replacement GEWs currently installed in the North Quarry. (Note: We understand the installed GEWs have yet to be connected to the gas collection and control system. Total GEWs to be installed in the North Quarry is 30.)
- List of proposed gas migration control measures.
  - Completion of the remainder (25%) of the additional force main, projected for late in first quarter 2014, weather dependent.
  - Completion early in the second quarter 2014 of increased liquid storage and pretreatment capabilities (leachate management plan).
  - Completion of the remaining North Quarry GEWs with the remainder scheduled for installation/replacement beginning in February 2014. (Note: As of the date of this letter, drilling in the North Quarry has not resumed.)
- Next scheduled quarterly update- April 15, 2014.

The January 15, 2014, LGCAP Update requests the following:

Section 2.0 – “Due to water levels being fairly consistent, it is requested to change the frequency of water level readings to monthly as opposed to weekly.”

This report references an October 18, 2013, SWMP letter you believe set forth the requirement for weekly water level readings which have been provided as depth to water (from top of well).

This frequency was proposed by you in the July 26, 2013, submittal:

Section 4.0, last paragraph proposes “...to further evaluate the zone of migration of the impacted gas monitoring and temporary monitoring probes with weekly water level readings and monitoring of the impacted probes to better delineate if methane is migrating through deeper zones”. It also states: “At that time a comprehensive

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corrective action plan will be submitted evaluating the impact of the recently-completed capping, other recent measures, and the proposed measures described above.”

The SWMP is not granting the frequency reduction at this time. With limited review data available, it appears some of the probes may have very little exposed screen, if any. Bridgeton Landfill may elect to include in the next quarterly corrective action plan report an evaluation of the data collected including effects of the water level on the probes and proposed corrective actions for any such water impacted probes as mentioned in the above-referenced paragraph and renew its request for a frequency reduction at that time.

The SWMP accepts the quarterly submittal for completion of the requirement of the First Agreed Order.

If you have any questions or comments regarding this letter, please contact Mr. J.P. Boessen at 573-526-3940 or P.O. Box 176, Jefferson City, MO 65102-0176.

Sincerely,

SOLID WASTE MANAGEMENT PROGRAM



Charlene S. Fitch, P.E.  
Chief, Engineering Section

CSF:jbl

- c: Daniel Feezor, P.E., Feezor Engineering, Inc.
- Mr. Joseph Binbeutel, Attorney General's Office
- Mr. Jonathan Garoutte, Department of Health and Senior Services
- Ms. Laura Yates, St. Louis County Department of Health
- Mr. Larry Lehman, Chief, Compliance/Enforcement Section, SWMP
- Ms. Brenda Ardrey, Chief, Operations Section, SWMP
- St. Louis Regional Office via Electronic Shared File