



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

## DEPARTMENT OF NATURAL RESOURCES

[www.dnr.mo.gov](http://www.dnr.mo.gov)

**JAN 14 2016**

CERTIFIED MAIL # 7009 3410 0001 9190 9421  
RETURN RECEIPT REQUESTED

Mr. Brian J. Power  
Environmental Manager  
Bridgeton Sanitary Landfill  
13570 St. Charles Rock Road  
Bridgeton, MO 63044-2430

RE: Bridgeton Sanitary Landfill, Permit Number 0118912, Subsurface Fire

### **Notice of Violation # SWP1601**

Dear Mr. Power:

The Missouri Department of Natural Resources continues to review data submitted regarding the ongoing conditions at the Bridgeton Sanitary Landfill. This data, in addition to information obtained at meetings and observations of the landfill property, demonstrates that the landfill continues to experience a subsurface fire. Due to the ongoing nature and intensifying conditions at the landfill, the Department is formally documenting with this Notice of Violation letter, these events and other related violations. Individual violations are discussed in more detail below:

#### Missouri Solid Waste Management Law

1. Section 260.210.1(4) of the Revised Statutes of Missouri (RSMo) prohibits the storage or disposal of solid waste in a manner that creates a public nuisance or adversely affects public health. Through the month of December 2015 and continuing to the present date, a subsurface fire has been occurring and the landfill owner/operator has failed to control and extinguish the subsurface fire which has been allowed to expand within, at least, the South Quarry of the landfill. The subsurface fire has created odors and air emissions which continue to migrate offsite and have resulted in odor complaints received by the Department. Offsite monitoring conducted by the Department has documented odors attributable to Bridgeton Sanitary Landfill at several established offsite monitoring locations.
2. 10 CSR 80-2.020(1)(F) requires that the operation of solid waste disposal areas comply with the terms and conditions set forth in the permit to prevent or minimize potential health hazards or conditions that could create a public nuisance or environmental pollution. Through the month of December 2015 and continuing to the present date, a subsurface fire has been



Recycled Paper

occurring and the landfill owner/operator has failed to control and extinguish the subsurface fire which has been allowed to expand within, at least, the South Quarry of the landfill. Permit #118912 does not allow for solid waste to be burned. The subsurface fire has created conditions that have and continue to damage the environmental control systems infrastructure at the landfill, including the leachate collection system and the gas collection and control system allowing for uncontrolled emissions, including odor, from the facility that extend beyond the permitted boundary of the facility into the surrounding communities.

Condition 6D of Permit #118912 requires that leachate levels in the leachate collection sumps located in the South Quarry not exceed 30 feet from the landfill's bottom and not exceed 50 feet from the landfill's bottom in the North Quarry. Through the month of December 2015, liquid levels in LCS-1D, LCS-2D, LCS-3D, LCS-4B, and LCS-6B have either exceeded these levels due to pump/line failures or the sump monitoring systems have failed due to excess temperature and pressure. As a result of these operational issues, the facility has been unable to demonstrate compliance.

3. 10 CSR 80-3.010(5)(C)1 requires that the landfill be constructed and operated in accordance with the approved plans and specifications. Through the month of December 2015 and continuing to the present date, a subsurface fire has been occurring and the landfill owner/operator has failed to control and extinguish the subsurface fire which has been allowed to expand within, at least, the South Quarry of the landfill. Further, 10 CSR 80-3.010(9)(C)1 requires that the leachate collection system be properly installed, operated and maintained per the permit and approved plans. Specifically, such operation of a leachate collection system is to minimize pollution of groundwater, surface waters and soil.
4. 10 CSR 80-3.010(13)(C) prohibits the burning of solid waste at a sanitary landfill, except in accordance with Chapter 643 RSMo, its corresponding rules, the terms, conditions, or both, of the plans, permit, or both, and all local requirements. Further, Section 260.210.1.(3) prohibits solid waste burning operations in violation of the rules and regulations of the Missouri Air Conservation Commission or the Department. Through the month of December 2015 and continuing to the present date, a subsurface fire has resulted in solid waste being burned in, at least, the South Quarry of the landfill. As a result of the solid waste burning, there have been odors/emissions documented leaving the property boundary. Additionally, significant settlement has been observed in the South Quarry. The amount and duration of the settlement indicates that a significant amount of waste has been and continues to be consumed by the subsurface fire.
5. 10 CSR 80-3.010(14)(C)2 prohibits methane from exceeding two and one half percent (2.5%) by volume in the soil at the property boundary. Further, 10 CSR 80-3.010(14)(C)1 prohibits decomposition gases from migrating laterally from the landfill. During the month of December 2015, weekly landfill gas monitoring data submitted by Bridgeton Sanitary Landfill shows decomposition gases in the following gas monitoring/compliance wells or probes at/beyond the

property boundary have contained methane gas above the regulatory limit, either for the entire month or a portion of the month: GMP-01, GMP-02, GMP-03, GMP-4S, GMP-5S, GMP-6S, and GMP-14D.

6. 10 CSR 80-3.010(19)(A) requires that sanitary landfills be operated in a manner which protects the health and safety of personnel and others associated with and affected by its operation. Through the month of December 2015 and continuing to the present date, a subsurface fire has been occurring and the landfill owner/operator has failed to control and extinguish the subsurface fire which has been allowed to expand within, at least, the South Quarry of the landfill. Due to the subsurface fire, several hazards exist and have been documented on an on-going or periodic basis at the site including, but not limited to, odors/emissions, elevated carbon monoxide, benzene and hydrogen levels, excessive heat and pressure, groundwater contamination, and collapse potential from waste mass reduction at or in proximity to the subsurface fire impacted areas.

#### Air Conservation Law

1. 10 CSR 10-6.165 requires that “no person shall cause, permit, or allow emissions of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one (1) volume of odorous air is diluted with seven (7) volumes of odor-free air for two (2) separate trials not less than 15 minutes apart within the period of one (1) hour.” During the month of December, the Department has documented an exceedance of the 7:1 Dilution-to-Threshold (D/T) ratio on two (2) monitoring events within one (1) hour.
2. Based upon review of the landfill’s “Odor Mitigation Pilot Study Report,” submitted November 14, 2014, and the “Sulfur Removal Technology Evaluation, Stage 2,” report submitted January 23, 2015, the Department’s Air Pollution Control Program has conducted calculations for the landfill gas and determined the combined emissions from the flares exceeds 250 tons of sulfur dioxide per year. Therefore, the construction permits should have been submitted for review pursuant to 10 CSR 10-6.060(8), Prevention of Significant Deterioration (PSD) program, and Bridgeton will remain in violation of 10 CSR 10-6.060 until Bridgeton obtains applicable PSD permit(s) pursuant to 10 CSR 10-6.060(8). Throughout this review process, the Department has requested information related to emission calculations and the PSD evaluation multiple times. For example, the Department requested that Bridgeton Landfill submit updated “potential to emit,” (PTE) calculations a number of times, including but not limited to formal requests in the letters dated March 25, 2015, May 1, 2015, May 20, 2015, and August 5, 2015. The Department received information supporting Bridgeton Landfill’s PTE calculations within their permit application on September 21, 2015, however is still awaiting submittal of additional supporting data. Bridgeton Landfill has failed to comply with the Department’s information requests in a timely fashion, needlessly complicating the Department’s ability to determine Bridgeton Landfill’s compliance with 10 CSR 10-6.060.

Mr. Brian J. Power  
Bridgeton Sanitary Landfill  
Page 4 of 4

3. 10 CSR 10-6.070 incorporating 40 CFR Part 60, Subpart WWW requires landfill gas meet specific criteria before operating a flare without assist gas. Based upon review of data submitted, Bridgeton Landfill failed to document continuous compliance with these requirements.

Should you have any questions concerning this Notice of Violation, please contact me at Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102-0176, (573) 751-0763 or at [aaron.schmidt@dnr.mo.gov](mailto:aaron.schmidt@dnr.mo.gov). Thank you.

Sincerely,

DIVISION OF ENVIRONMENTAL QUALITY



Aaron Schmidt  
Deputy Director

AS:ltt

- c: Mr.-Jim Teter, Republic Services, Inc.  
Mr.-Bill Beck, Lathrop & Gage  
Ms.-Ally Cunningham, Lathrop & Gage  
Mr.-John Haasis, St. Louis County Department of Health, Solid Waste Management Program  
Ms.-Kathrina Donegan, St. Louis County Department of Health, Air Program  
Ms.-Thais Folta, Assistant Attorney General  
Mr.-Chris Nagel, Solid Waste Management Program  
Mr.-David Lamb, Hazardous Waste Program  
Ms.-Kyra Moore, Air Pollution Control Program  
Mr.-John Madras, Water Protection Program  
St. Louis Regional Office via Shared Electronic Files