



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

DEPARTMENT OF NATURAL RESOURCES

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APR 15 2015

CERTIFIED MAIL # 7009 3410 0001 9190 3276
RETURN RECEIPT REQUESTED

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

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

Notice of Violation # 30455

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 March 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, at least, within the South Quarry of the landfill. The subsurface fire has created odors which continue to migrate offsite and have resulted in numerous odor complaints received by the department. Further, offsite monitoring conducted by the department has documented odors attributable to Bridgeton Sanitary Landfill at several established offsite monitoring locations on a routine basis.
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 March 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. 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 March 2015, liquid levels in LCS-1D, LCS-2D, LCS-3D, and LCS-4B have either exceeded these levels due to pump 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 March 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 limit spills, breaks, releases, and discharges off-site, minimizing 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 March 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. In the month of

March 2015, weekly 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: GMP-01, GMP-02, GMP-03, GMP-4S, GMP-4D, GMP-5S, GMP -6S, GMP-09, GMP-14D, and GMP-14S. Since installation of the southwest lift station there continues to be evidence of lateral landfill gas migration, including the presence of benzene. Lateral migration of landfill gas has continued following installation of an "interceptor trench."

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 March 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." Through the month of March 2015, the Department has documented exceedances of the 7:1 Dilution-to-Threshold (D/L) ratio on two (2) monitoring events within one (1) hour.
2. Pursuant to 10 CSR 10-6.060(5)(B), a *de minimis* permit shall be issued and in effect only if (1) the permitting authority is notified in writing of the proposed construction prior to the commencement of construction; (2) information is submitted to the permitting authority which is sufficient for the permitting authority to verify the annual emission rate, to verify that no applicable emission control rules will be violated, and to verify that the net emission increase of the installation remains below *de minimis* levels; and (3) net emissions do not increase above the *de minimis* levels at an installation having a *de minimis* permit under this section. 10 CSR 10-6.060(5)(B)3 further states that if net emissions at the installation do increase above the *de minimis* levels, the installation shall be in violation of this rule until it obtains a permit under the other applicable requirements of this rule. On August 7, 2013, the St. Louis County Air Pollution Control Program (St. Louis County) issued Bridgeton Landfill, LLC three (3) new construction permits (i.e., 7787, 7788 and 7790, respectively) for two (2) 4,000 standard cubic feet per minute (scfm) John Zink candlestick flares and one (1) 2,500 scfm LFG Specialties candlestick flare, and modified an existing construction

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permit (i.e., 7736) to increase the permitted landfill gas flow rate to an existing 2,500 scfm John Zink candlestick flare. Additionally, on June 19, 2014, St. Louis County issued Bridgeton a construction permit (i.e., 7839) for a 3,500 scfm John Zink enclosed flare. Each of these permits was issued pursuant to 10 CSR 10-6.060(6) based upon the understanding that potential emissions of sulfur dioxide from the landfill's flares would be less than 250 tons per year. 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 updated 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), and Bridgeton will remain in violation of 10 CSR 10-6.060 until Bridgeton obtains applicable permits pursuant to 10 CSR 10-6.060(8).

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. Thank you.

Sincerely,

DIVISION OF ENVIRONMENTAL QUALITY



Aaron Schmidt
Deputy Director

AS:llk

c: Mr. Jim Teter, Republic Services, Inc.
Ms. Jessie Merrigan, 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
Mr. Tom Phillips, 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