

# ***Bridgeton Landfill, LLC***

January 5, 2015

Chris Nagel  
Solid Waste Management Program  
Missouri Department of Natural Resources  
P.O. Box 176  
Jefferson City, Missouri 65102

**Re: Response to MDNR's December 26, 2014, Letter  
Permit No. 0118912, St. Louis County**

Dear Mr. Nagel:

This letter responds to your December 26, 2014, letter regarding the November and December gas wellfield data. That letter summarized the Department's review of certain data submissions, communicated the Department's concerns about the conditions of certain wells, and directed several additional actions by Bridgeton Landfill. The letter and the Department's concerns do not reflect conversations that we had with MDNR personnel prior to December 26, 2014 regarding ongoing monitoring and wellfield management efforts.

It is important to note that the well conditions within the area characterized as MDNR's "area of concern" are:

- Consistent with prior monitoring results for those wells;
- In compliance with NSPS requirements; and
- Well below any trigger level established for further action by MDNR's own experts and by the technical evaluations and planning documents that have been prepared for and approved by MDNR over the past two years.

As such, Bridgeton Landfill is uncertain of the basis for MDNR's concern and does not agree that the actions proposed by MDNR's letter are appropriate for the North Quarry or would provide any additional beneficial data. Because the data is consistent with prior monitoring results, there is no reason to believe there is any need for urgent response. Instead we think that it would be more beneficial for us to meet and discuss the current and historic data in detail in order to develop a plan that is appropriate and useful.

## **North Quarry Well Data**

First, we want to provide additional information on the wells of concern to the Department, the wellfield management steps taken to respond to the change in gas conditions, and our assessment

Mr. Chris Nagel  
January 5, 2015  
Page 2

that the observed conditions are commonly encountered at landfills with aged waste such as exists in the northern portion of the North Quarry.

During the November 11, 2014, North Quarry wellfield tuning and lab sampling event, nine gas extraction wells exhibited lower methane and higher balance gas than usual; however all parameters remained within NSPS required levels. In addition, gas wellhead temperatures were consistent with historical levels and did not exceed the 145° F threshold for additional monitoring as required by Second Amendment to the Agreed Order. It is worth noting that the subject gas wells have a long history of similar monitoring results without contemporaneous or subsequent evidence of reaction or subsurface oxidation event (SSO). Based on the November 11, 2014 field data, the field technical team reduced the vacuum applied to the wells where appropriate; this is standard operating procedure per Volume 2, Appendix B of the Operation, Maintenance, and Monitoring Plan which was submitted in September 2013.

Laboratory results from North Quarry wells were reviewed on December 8, 2014, and it was observed that seven of these nine gas wells contained no carbon monoxide. While two had detectable carbon monoxide levels, the detections were far below values which were described (in the Thalhamer and Stark July 22, 2013 Memorandum) as “No additional actions required, continue monitoring per the First Agreed Order.” Despite there being no signs of an SSO or reaction nor any trigger for further monitoring or notification under the existing procedures and orders, the site team temporarily turned off the two gas wells which had carbon monoxide detections as well as three nearby gas wells, as a conservative measure. At all times, Bridgeton Landfill followed the proper monitoring and reporting protocol as prescribed by the Agreed Order, as amended, and utilized procedures consistent with best management practices for landfill gas extraction systems.

The properly applied protocols for wellfield management were successful at returning the wells to usual operating conditions. Carbon monoxide sampling is scheduled for all North Quarry wells in January 2015, along with the routine temperature and gas quality monitoring, which will allow further evaluation of this issue.

### **Response to Department’s Directives**

The Department’s letter, sent at 4 pm the Friday after a holiday and within a holiday season, demands that substantial action be taken within a period of less than 4 business days. These demands are outside the scope of any requirements of the current Agreed Order, as amended, not necessary or reasonable to monitor the subsurface smoldering event, and wholly inconsistent with recent discussions regarding the conditions of the North Quarry wells. The timeline set forth in the Department’s letter does not allow for any discussion or response, even within the timelines set forth by the Agreed Order, and in fact makes demands that are impossible to meet.

The letter also takes contrary positions to those expressed by the agency in recent calls and in our ongoing discussion of the data. To avoid confusion, ensure we are all on the same page, and develop the best approach for data evaluation, reporting and next steps, we would like to have a

Mr. Chris Nagel  
January 5, 2015  
Page 3

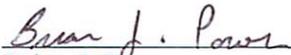
meeting with the Department and its respective experts. To the extent the Department's letter constitutes a directive under the Agreed Order, this letter provides written notification that Bridgeton Landfill invokes the Dispute Resolution process of Paragraph 47 of the First Agreed Order. Please advise us of when the Department can be available for a discussion of the scope, reasonableness and necessity of the requests of the Department's December 26<sup>th</sup> letter.

- Bridgeton Landfill disputes that the two additional TMPs directed by the letter are necessary or reasonable to monitor the subsurface smoldering event and therefore disputes that the TMPs are required under Paragraph 20 of the Agreed Order.
- Bridgeton Landfill disputes that the expanded settlement monitoring is necessary or reasonable to monitor the subsurface smoldering event and therefore disputes that the expanded settlement monitoring is required under Paragraph 20 of the Agreed Order.
- Bridgeton Landfill disputes that the weekly down-hole temperature readings directed by the letter are necessary or reasonable to monitor the subsurface smoldering event and therefore disputes that the additional temperatures readings required under Paragraph 20 of the Agreed Order.
- Bridgeton Landfill objects to the request for monthly CO data to the extent it is inconsistent with the clear CO sampling requirements of the Second Amendment to the Agreed Order. As MDNR is aware, gas sampling for December, to be included in the January 20<sup>th</sup> report, was conducted prior to MDNR's letter and included only neck area wells. During January the CO sampling will include all North Quarry, South Quarry and neck wells identified in Table 1 of the Second Amendment to the Agreed Order and that data will be submitted with the monthly report on February 20, 2015. Bridgeton Landfill will continue to comply with the gas sampling requirements of the Second Amendment to the Agreed Order.

Bridgeton Landfill believes that the advanced age of waste and resulting low methane generation in the northern part of the North Quarry may require specific gas well management techniques. We anticipate that your field visit, scheduled for January 8, 2015, will aid your understanding of the landfill conditions and allow additional discussion related to the management, monitoring, and reporting for the North Quarry GCCS. We look forward to meeting with you and your team at that time.

Please contact me at (314) 744-8165 if you have any questions or comments.

Sincerely,

  
\_\_\_\_\_  
Brian J. Power  
Environmental Manager  
Bridgeton Landfill, LLC