

# Missouri City Landfill

Clay County, Missouri

June 2019

BFI Waste Systems of North America (BFI) is pleased to provide this update to its Missouri City Landfill neighbors describing continuing efforts to maintain the Landfill.

## **Background**

In September 1983, the Missouri City Landfill accepted its last shipment of waste. Immediately thereafter, work started to close the Landfill.

Closure work involved: constructing an engineered containment system that includes a landfill cap which provides a physical barrier to the waste (the cap is generally constructed of approximately 18 inches of compacted clay, which is covered by a 20 mil PVC liner and geotextile layer, and then approximately 24-inches of vegetative cover layer on top of the PVC liner and geotextile layer); implementing a groundwater monitoring program; developing a post-closure care plan to inspect and repair the engineered systems; and establishing financial instruments to make sure resources are available to pay for post-closure care costs in the future.

## **Water Treatment Plant**

The Missouri Department of Natural Resources (MDNR) approved the construction of a state-of-the-art water treatment plant with the renewal of the post-closure care permit in August 2017. The

water treatment plant treats water that has come into contact with waste previously disposed of at the Landfill which is captured through collection systems installed around the Landfill. The water treatment plant only treats water collected at the Landfill. State and federal law prohibits the treatment plant from treating water from any other facility.

The water treatment plant became fully operational in October 2018. The treated water is stored in one of the 250,000-gallon storage tanks and sampled prior to discharge. The sampling results must be below the discharge permit limits before BFI can discharge the treated water to Outfall #3. Outfall #3 is located in an unnamed tributary to the Missouri River and is the MDNR approved discharge location for the treated and tested water from the water treatment plant. Since the water treatment plant became operational in October 2018, there have been six discharges averaging approximately 210,000 gallons per discharge. Samples were collected before each discharge event and the results were below the discharge permit limits. A photograph of the water treatment plant

building and associated storage tanks is provided in Figure 1.



**Figure 1. Photograph of the Missouri City Landfill 250,000-gallon storage tanks and the water treatment plant building.**

### **BFI Missouri City Landfill Website**

BFI developed a Missouri City Landfill website that provides details on the facility activities and links to select documents. The website address is listed below.

<https://missouricitylandfill.com/>

### **National Pollutant Discharge Elimination System (NPDES) Permit**

The MDNR Water Protection Program issued a modified NPDES permit on February 1, 2019. The permit modifications included the removal of one outfall and the addition of three new outfalls. No changes were made to the monitoring requirements for Outfall #3, the water treatment plant outfall. The new outfall sampling locations will provide a better representation of the stormwater runoff from the facility. Sampling of the outfalls happens once per quarter when greater than 0.1 inch of rainfall occurs, and this rainfall results in stormwater runoff from the facility. The sampling results are reported to MDNR in discharge monitoring reports.

### **Semi-Annual Sampling**

As part of the post-closure care for the facility, monitoring is required by the post-closure care permit. The monitoring program includes sampling semi-annually at monitoring wells, surface water sampling locations, groundwater discharge locations, one seep, and sumps. The results from the August and November 2018 sampling events were summarized in an annual report that was submitted to MDNR on March 1, 2019.

A semi-annual sampling event occurred in February 2019, and a follow-up sampling event occurred in May 2019. The data obtained from these sampling events will be included in a semi-annual report that will be submitted to the MDNR and the Environmental Protection Agency (EPA) in September 2019.

### **How Can I Get More Information?**

Any records regarding the facility are available from MDNR at the information repository in Jefferson City, Missouri. The public can request to review and copy MDNR's files through a sunshine request. For more information, please visit MDNR's website at:  
[www.dnr.mo.gov/sunshinerequests.htm](http://www.dnr.mo.gov/sunshinerequests.htm).

As a good neighbor and responsible landfill operator, BFI would like to hear how we can continue to keep you informed about the Missouri City Landfill. If you have any questions or comments regarding the facility, please contact BFI's Environmental Manager, Brad Zimmerman. Brad can be reached by telephone at (573) 636-1142 or by writing to:

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