

Bridgeton Landfill
After-Incident Report Regarding November 2, 2018 South Quarry Surface Fire

Submitted November 17, 2018

Pursuant to the Incident Management Plan, Bridgeton Landfill, LLC submits this After-Incident Report regarding the surface fire which occurred in the South Quarry of the Bridgeton Landfill facility on November 2, 2018. The content of this submittal follows the format as outlined in Section 7.0 of the Incident Management Plan.

Name, Address and Contact Information for the site

The surface fire occurred at the Bridgeton Landfill, located at 13570 Saint Charles Rock Road, Bridgeton, Missouri. The manager on-call at the time of the event was Division Manager, Erin Fanning. Contact information for the site is as follows:

Erin Fanning
Division Manager
Bridgeton Landfill LLC
13570 Saint Charles Rock Road
Bridgeton, Missouri 63044
(209) 227-9531
efanning@republicservices.com

Erin Fanning was initially supported by Matthew Stewart (Environmental Specialist) and shortly thereafter by Michael Lambrich (Operations Manager), Anthony Kimutis (Environmental Technician), and Dana Sincox (Environmental Manager).

Date, time, and type of incident

On November 2, 2018, a surface fire incident was identified at the Bridgeton Landfill at 4:51pm.

A full timeline of notifications and fire mitigation steps is outlined below:

November 2, 2018

- 4:15 PM: Thunder was heard at the Bridgeton Landfill office. Erin Fanning sent out a text to Bridgeton Landfill staff and contractors working on-site to clear off the hill and seek shelter pursuant to lightning watch protocols.
- 4:51 PM: Following the most significant part of the storm, Matthew Stewart was driving through the Bridgeton Landfill site to check on stormwater pumps and noticed smoke in the direction of the southwest corner of the South Quarry and called Erin Fanning to notify her that there may be an issue. At this time, it was unknown whether or not the smoke was due to a fire within the Bridgeton Landfill complex. Matthew Stewart continued towards the southwest corner of the South Quarry to visually confirm whether or not there was a fire within the Bridgeton

Landfill complex, and upon seeing flames, notified Erin Fanning that there were flames on a section of the aboveground eighteen-inch diameter header pipe.

4:52 PM: Erin Fanning left the office to direct activities and provide support to initial fire mitigation efforts. ~ Matthew Stewart observed flames on a three- to four-foot section of the aboveground eighteen-inch diameter header pipe. For reference, this section of the header pipe is located above ground, above liner, and on top of gravel. Matthew Stewart emptied a 5 lb. ABC fire extinguisher that was present in the site truck in an effort to put out the flames.

4:53 PM: Erin Fanning proceeded to the leachate pretreatment plant to notify on-site personnel and engage the support of the OBG contractors and to obtain additional fire extinguishers.

~ With the extinguisher not being effective, Matthew Stewart immediately drove to the leachate pretreatment plant to notify the OBG contractors, get support, and obtain additional fire extinguishers.

4:55 PM: Erin Fanning and Matthew Stewart intersected at the leachate pretreatment plant. Matthew Stewart confirms to Erin Fanning that there is a fire on a portion of the header in the southwest portion of the South Quarry and conveys that the 5 lb. ABC fire extinguisher did not extinguish the flames. The incident was determined to be a Level 1 surface fire incident.

~ Erin Fanning called Michael Lambrich to ensure that any additional on-site personnel would be notified of the incident per safety protocols as she was driving to the southwest portion of the South Quarry.

~ Erin Fanning arrived at the incident location. Erin Fanning observed flames from the header on the section of the aboveground header pipe that was on the south side of CT-25, on gravel. Erin Fanning also called site contractor project managers to ensure that any additional on-site personnel were notified of the incident per safety protocols.

~ Matthew Stewart and the OBG contractors arrived to the incident with multiple 20 lb. ABC fire extinguishers and began utilizing the extinguishers to mitigate flames at the breach in the header.

~ While proceeding with notifications to site personnel, Erin Fanning also began closing valves to the adjacent infrastructure to isolate the fire within the impacted infrastructure.

5:01 PM: Erin Fanning called 911 to notify first responders of the incident and to request support. Erin Fanning conveyed observations regarding what was occurring and the location to the 911 dispatcher. At that time, Matthew Stewart and OBG continued to utilize fire extinguishers to mitigate flames.

5:03 PM: Pattonville Fire Department dispatched to the site.

- ~ Erin Fanning directed personnel to continue isolating other infrastructure in the area. Valves on the eighteen-inch diameter header were shut down in both directions of the fire and valves on the individual landfill gas extraction wells were closed as well.
- ~ Erin Fanning notified Missouri Department of Natural Resources' Chris Nagel of the incident. Throughout the remaining response and restoration timeline, updates were provided to Chris Nagel and/or Mike Parris.
- ~ Erin Fanning drove towards the office to obtain the gate key to the alternate first responders' entrance.
- ~ While driving towards the office, and continuing throughout additional response and coordination efforts, Erin Fanning notified and coordinated with the Bridgeton Landfill team, both internal and third party, to notify team members of the incident and to engage support in the response and restoration of the system.
- 5:08 PM: Pattonville Fire Department Battalion Chief arrived to the office building at 13570 Saint Charles Rock Road. Upon finding no personnel present at the office, he proceeded past the office and the scale house towards the transfer station.
- ~ On her way back to the office to obtain the gate key, Erin Fanning intersected the Pattonville Fire Department Battalion Chief at the transfer station, and she turned around at the transfer station to guide him to the location of the incident. He relayed to Erin Fanning that as she was leading him to the location of the incident, he was directing fire trucks to the recently completed alternative first responders' entrance.
- ~ Erin Fanning directed personnel to close stormwater knife gates downstream of fire suppression activities to contain potentially impacted water/foam.
- ~ Erin Fanning notified Environmental Protection Agency's Tom Mahler of the incident. Throughout the remaining response and restoration timeline, updates were provided to Tom Mahler.
- 5:11 PM: Matthew Stewart received an incoming call from Pattonville Fire Department Assistant Fire Chief Matthew LaVanchy, who was alerted to the event by the Battalion Chief, and discussed location of the fire. Matthew Stewart informed Matthew LaVanchy that the fire was located in the southwest corner of the South Quarry adjacent to Boenker Lane.
- 5:17 PM: Fire trucks turn around at entrance to landfill to proceed to the alternate first responders' entrance.
- 5:18 PM: Erin Fanning obtains the gate key to the alternate first responders' entrance.
- 5:19 PM: Fire trucks arrive at the alternate first responders' entrance.

- ~ Flames observed at isolation valve for the header at CT-25.
- ~ Pattonville Fire Department coordinates with Erin Fanning and begins utilizing foam on CT-25; the fire was not successfully extinguished with foam.
- ~ Erin Fanning instructs Matthew Stewart to obtain Bridgeton Landfill's supply of fire foam.
- ~ Erin Fanning directs personnel to continue isolating valves, moving outwards from the vicinity of the fire
- ~ Pattonville Fire Department transitions to utilizing a stream of water to maintain fire suppression on CT-25 and continued these fire suppression measures for the duration of the event as Bridgeton Landfill continued additional response measures.
- ~ Erin Fanning and Michael Lambrich determined additional response measures, which included shutting down the South Quarry flare, shutting down the compressors, and smothering the location with dirt.
- ~ Erin Fanning directed OBG contractors to shut down FL-120.
- 5:39 PM The flare for the South Quarry (FL-120) and the main blower for the South Quarry were manually shut off by Bridgeton Landfill personnel.
- ~ Erin Fanning provided a voicemail to Saint Louis County Department of Public Health's Mark Milward of the incident. Throughout the remaining response and restoration timeline, updates were provided to Mark Milward.
- ~5:55 PM The main, east, and west compressors were manually shut off by Bridgeton Landfill personnel, which turned off the air supply to the North and South Quarry infrastructure.
- ~ Fusion Solutions arrived on site, coordinated with Erin Fanning and first responders, and began preparations to smother the location with dirt.
- 6:24 PM The Auxiliary Flare faulted and shut down due to the compressors being taken offline.
- 6:43 PM: Pattonville Fire Department successfully extinguished the flames at CT-25 utilizing the water stream. After consultation with the Pattonville Fire Department, it was determined that soil placement/smothering was not necessary and would prohibit restoration activity.
- ~ The initial objective for restoration was to bring the flare back online. To achieve this objective, the impacted infrastructure was physically removed from the system and moved off of the landfill and onto a gravel area off the road near the southwest entrance. The impacted portion of the header was physically

disconnected and removed from the system, and the remaining header was blind flanged on both ends to allow vacuum to be restored. The gas extraction wells that were historically tied into this portion of the system were physically separated from the system and remained offline through the next day.

~ Erin Fanning conducted an on-site briefing and tour of the incident area with Missouri Department of Natural Resources State On-Scene Coordinator Skip Ricketts. Erin Fanning escorted Skip Ricketts as he performed air monitoring utilizing a MultiRae. Locations monitored included the incident area, along Boenker Road from the dead-end through the intersection at Saint Charles Rock Road, along Saint Charles Rock Road from Boenker Road to Crossroads Industrial Drive, and along Crossroads Industrial Drive to the cul-de-sac at AAA Trailer Services.

~ Erin Fanning communicates with DHSS Director and provides update.

10:21 PM: Matthew Stewart performed an additional round of air monitoring at the standard odor management plan locations while the flare was offline. Parameters monitored were odor, hydrogen sulfide, and benzene.

11:39 PM: The Auxiliary Flare was started back up and resumed normal operation. The auxiliary flare was monitored following start-up to review landfill gas quality to ensure consistency with historic data.

11:42 PM Flare FL-120 and the main blower were started back up and resumed normal operation. FL-120 was monitored following start-up to review landfill gas quality to ensure consistency with historic data.

~ Continuous surveillance on this area continued for a minimum of 48 hours following the incident by personnel stationed in a vehicle monitoring the area throughout the night and day.

November 3, 2018

~ Erin Fanning, Michael Lambrich, and Matthew Stewart along with Fusion Solutions and Hunt Vac Services were on-site to restore operation to the gas extraction wells that were physically isolated from the system from the previous night. The portion of the eighteen-inch diameter header that was removed the previous night was replaced with six-inch diameter header as the interim measure to restore operation of the gas extraction wells to the system. In order to restore the impacted area of the header to operation, FL-120 was taken off-line to install the six-inch diameter header portion. Condensate trap CT-21 was utilized as an interim replacement for CT-25. Vacuum was restored to the previously disconnected gas extraction wells on Saturday, November 3, 2018.

9:25 AM: Erin Fanning and Michael Lambrich conducted an on-site briefing and tour of the incident area with Saint Louis County Department of Public Health's Mark Milward on Saturday morning.

2:48 PM: Matthew Stewart performed an additional round of air monitoring at the standard odor management plan locations while the flare was offline. Parameters monitored were odor, hydrogen sulfide, and benzene.

Name and quantity of hazardous materials released, if any

Based on air monitoring completed by the MDNR, Pattonville Fire Department and Bridgeton Landfill personnel, there was no release of hazardous materials. Pattonville Fire Department initiated air monitoring upon arriving on site. Pattonville Assistant Fire Chief Matthew LaVanchy released the following statement, “As our first action, even before starting fire suppression efforts, fire crews monitored the air for any hazardous substances that may have become airborne during the event. It is important to note that there were no hazardous emissions detected by our monitors at any point during the response other than those that would typically be found at any other normal fire incident.” At 7:03pm, the Saint Louis County Office of Emergency Management issued a text alert saying, “NO contaminants are being released.” MDNR deployed environmental emergency response staff to the site, who conducted comprehensive air monitoring on the evening of the event. MDNR issued a statement finding, “no air emission levels of public concern.” In addition, Bridgeton Landfill staff completed additional air monitoring, using a Jerome meter (to measure hydrogen sulfide) and an UltraRAE 3000 (to measure benzene). All concentrations were either non-detectable or below levels of public health concern.

Per the IMP downstream knife gates were closed so that all fire suppression water and foam were contained. All fire suppression water and foam along with any stormwater that potentially came into contact with fire suppression water and/or foam was cleaned up via a vac truck and routed to the leachate pretreatment plant.

Repairs to the gas system were completed overnight on the evening of November 2, 2018 in order to get the flare system operational as expeditiously as possible. The melted piping material was removed and is currently being stored pending finalization of the investigation. Once the investigation is complete, the damaged infrastructure will be disposed of in accordance with applicable regulations.

Nature and extent of injury to onsite personnel

There were no known injuries to onsite personnel or to first responders.

An assessment of actual or potential hazards to human health or the environment

As outlined above, air monitoring was completed by a variety of entities, including the MDNR, the Pattonville Fire Department and the Bridgeton Landfill site team. Based on both real-time and after incident air monitoring, there was no actual or potential hazard to human health or the environment.

Steps taken to address incident and ensure health and safety of onsite personnel and the public

Upon discovery of the surface fire, site personnel immediately notified on-site personnel and then 911. Coordination with first responders continued throughout the event. Regular updates were provided to Saint Louis County, the Missouri Department of Natural Resources, the Environmental Protection Agency, and the Bridgeton Police Department during the event and throughout restoration activities. Site personnel attempted to mitigate the fire with on-site fire extinguishers and isolated that portion of the wellfield as emergency personnel mobilized to the site. Once emergency personnel were on site and took over fire suppression operations, on-site personnel continued to focus on removing any oxygen or landfill gas source to the fire. This involved closing additional valves moving outwards from the vicinity of the fire, shutting down the flare system, and shutting down the compressors, so that the entire gas collection and control system was offline. Site personnel also prepared soil to be placed as a suppressant, although ultimately, it was not necessary to be deployed as the Pattonville Fire Department extinguished the fire utilizing water just prior to soil placement. Additionally, the Bridgeton Police Department developed a perimeter to maintain the community at a safe distance from the event. Air monitoring was continuous throughout the incident, and follow-up monitoring confirmed that there was no risk to the health and safety of on-site personnel or the public.

Pursuant to discussions with the first responders and agencies, Bridgeton Landfill will coordinate an After Action meeting to review the event and determine future directions.