INCIDENT MANAGEMENT PLAN (IMP)

with

CONTINGENCY PLAN AND EMERGENCY PROCEDURES

BRIDGETON LANDFILL

Prepared for:

BRIDGETON LANDFILL, LLC
13570 ST. CHARLES ROCK ROAD
BRIDGETON, MO 63044

Prepared by:

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
ST. LOUIS, MISSOURI

CEC Project No. 131-178

July 2, 2014
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INTRODUCTION

Like many industrial activities, operation and maintenance of municipal waste landfills includes risk. At the Bridgeton Landfill, these risks can result from the use of large mobile and stationary equipment, handling of combustible materials, and the management of waste byproducts such as decomposition gases and liquid leachate.

A recognized heat-generating event is occurring within a portion of the solid waste disposal area. Such heat-generating events can increase the potential hazards and the likelihood of an incident. An Operation, Maintenance, and Monitoring (OM&M) Plan has been submitted to the MDNR separately to describe special observations and preventative maintenance procedures, which Bridgeton Landfill personnel are implementing. The OM&M Plan requires that monitoring and work activity reports be generated and submitted to the MDNR, allowing constant tracking of the status of the heat-generating event.

In addition to the above document, the facility is required to have various spill prevention plans, leachate treatment and handling protocols, surface water management plans, and air quality plans. All of these plans can be found at the facility office.

This Incident Management Plan (IMP) describes plans to prevent incidents, required protocol for initial incident emergency calls, coordination of responses, and resumption of normal activities (in case of interruption). The IMP has been prepared by Bridgeton Landfill with the cooperation of appropriate regulatory authorities and local emergency responders.

Bridgeton Landfill creates, stores, and disposes of leachate as part of its operation. Constituents contained in the leachate have, at times, exceeded levels at which it be classified as a hazardous waste in accordance with the Code of Federal Regulations (CFR) Part 261. Specifically, some of the leachate has occasionally exceeded the hazardous threshold for benzene which carries the waste code D018. Therefore, the facility needs to be operated in compliance with the requirements applicable to a hazardous waste generator (40 CFR part 262) including certain provisions of 40 CFR Part 265. As such, this IMP has also been developed to meet the requirements of CFR 265, Subpart D – Contingency Plan and Emergency Procedures, since those procedures are inclusive of contingency planning and emergency response procedures applicable to either a generator or a treatment, storage, or disposal facility.
The remainder of this IMP is comprised of the following sections:

2.0 **Description of Bridgeton Landfill** – Location, access, size, and facilities are described.

3.0 **Definitions** – Defines significant terms used in the IMP.

4.0 **Incident Prevention** – Describes measures for incident prevention, assignment of Emergency Coordinators, and communication and coordination with Regulatory and Local Authorities.

5.0 **Response and Incident Strategies** – Presents response scenarios for a number of identified potential incidents.

6.0 **Resumption and Restoration** – In the case of service interruptions, this section describes the process for resuming operations including regulatory approvals.

7.0 **Amendment of Plan** – Describes the frequency and process for updating and amending the IMP.
2.0 DESCRIPTION OF BRIDGETON LANDFILL

Bridgeton Landfill is an inactive municipal solid waste landfill located at 13570 St. Charles Rock Road in Bridgeton, Missouri (see attached site location map, Figure 1). The site was formerly mined for limestone, resulting in large, open pits which were over 200 feet deep. Beginning in the 1940’s or 1950’s, portions of the property were backfilled with municipal wastes, industrial wastes, and construction and demolition debris. Landfill operations ceased in 2005.

The recent permitted disposal area (see Figure 2 for location) covers about 52 acres of the 214-acre property and is the main focus of this IMP. In addition, a concrete mixing plant, a waste transfer station, two legacy disposal areas and many appurtenant features are present on the site property. See Figure 2 for the facility layout and access.

Although the landfill is inactive, many activities are occurring at the facility including:

- Placement and maintenance of cover materials;
- Collection, management, and destruction of landfill decomposition gas;
- Generation, storage, and treatment of leachate;
- Collection and disposal of landfill leachate; and
- Operation of a waste transfer station, at which waste is transferred from small local collection trucks into large long-haul trucks for transportation to a remote landfill.

When waste material decomposes, a biological process increases its temperature and produces combustible gasses (primarily methane). Portions of the Bridgeton Landfill are experiencing higher-than-typical temperatures resulting from a possible heat-generating (exothermic) event taking place within the waste. Many things can produce a heat-generating event, and heightened monitoring and maintenance of the facility is required to control the heat-generating event.
3.0 DEFINITIONS

**Facility Emergency Coordinator**  Bridgeton Landfill person identified with the responsibility for initial assessment and coordination of response activities with regulatory and local authorities.

**Incident Commander**  Representative of governmental emergency response agency to which all other responders report.

**Regulatory Authorities**  Governmental agencies responsible for permitting and regulation of activities associated with, or affected by, the landfill. These include: the MDNR, the St. Louis Metropolitan Sewer District (MSD), the U.S. EPA, St. Louis County, and the Federal Aviation Authority (FAA).

**Local Authorities**  Parties that have a role or interest in emergency response including: Local Fire Departments, St. Louis County Local Emergency Planning Committee, Lambert-St. Louis International Airport, and the City of Bridgeton.

**Level 0 Incident**  An incident that can be handled entirely by on-site Bridgeton personnel and equipment. In some cases, notification to emergency responders and/or regulatory personnel may be necessary.

**Level 1 Incident**  An incident that requires assistance of local authorities to remedy. May include potential harm to life, safety, or health of on-site personnel.

**Emergency Command Center**  A location identified for use during a Level 1 Incident. The location would serve as the control center for the Emergency Coordinator, Incident Commander, Regulatory Authorities, Local Authorities, and media relations.
Bridgeton Landfill personnel work hard to prevent potential hazards from becoming incidents. Many voluntary and required programs and documents are used to minimize hazards and protect employee and public health and safety. A partial list follows:

**Missouri Department of Natural Resources Solid Waste Disposal Operating Permit #118912**

This permit and referenced permit application documents govern the previous operation and the current closure and post-closure activities at the site. Compliance with the applicable strict state solid waste regulations ensures a high level of due care with respect to the landfill facility. These documents are available at the site office.

**Bridgeton Landfill Health and Safety Plan (HASP)**

This site-specific plan details safety protocols. The HASP focuses on the specific health and safety hazards that are related to working in and around a landfill and requires landfill personnel be OSHA trained if performing certain tasks.

**Bridgeton Landfill Operation, Maintenance, and Monitoring Plan (OM&M Plan)**

A recognized heat-generating event is occurring within a portion of the solid waste disposal area. Such heat-generating events can increase the potential hazards and the likelihood of an incident. The OM&M Plan describes special observations and preventative maintenance procedures, and Bridgeton Landfill personnel are implementing these procedures. The OM&M Plan requires that monitoring and work activity reports be generated and submitted to the MDNR, allowing constant tracking of the status of the heat-generating event.

In addition to the above documents, the facility is required to have various spill prevention plans, leachate treatment and handling protocols, surface water management plans, and air quality plans. All of these plans can be found at the facility office.
5.0 RESPONSE AND INCIDENT STRATEGIES

An “incident” is a situation that is non-routine or is anomalous and which poses a threat to the health and safety of facility personnel or the public, or which may develop into such. Bridgeton Landfill has designated a Facility Emergency Coordinator who is responsible for determining if a situation rises to the level of an incident (see Table 1 for Facility Emergency Coordinator designation as well as other responsible parties).

When an incident occurs, the Facility Emergency Coordinator will make an initial assessment of the severity of the incident and classify it as Level 0 or Level 1 (see definitions in Section 3.0 of this Plan) based on the nature of the incident. Depending on the severity of the incident, regulatory and local authorities become involved. A checklist of some of the important incident management steps to be taken by the Facility Emergency Coordinator is presented in Attachment A. At this time, identified potential incidents at the Bridgeton Landfill fall into one of the following categories:

- Surface Fire;
- Personal Injury – Man Down /Personnel Contamination;
- Sudden Waste Movement; and
- Leachate Release

Site entrances are shown on the attached Figure 2; evacuations, if necessary may be made at any of these entrances. Internal communications are provided to appropriate facility personnel through two-way radio or cell phones. In the event of an emergency or required response or evacuation, the radio-equipped personnel will circulate the facility to provide appropriate notifications.

The following pages contain the response and incident strategies for each of these potential incidents.
INCIDENT – SURFACE FIRE

INITIAL ASSESSMENT
(by Facility Emergency Coordinator)

Level 0
- Small affected area, or
- Minor smoke plume, and
- Equipment and personnel on-site sufficient to resolve incident

RESPONSE
1. Notify on-site personnel
2. Call Pattonville FD On-Duty Battalion Chief 314-393-4802
3. Call Robertson FD Assistant Fire Chief 314-575-5011
4. Notify MDNR 573-751-5401
5. Coordinate extinguishment (use heavy equipment to smother with dirt or extinguish with water truck spray)
6. Monitor continuously for one hour to ensure extinguished
7. Assess potential damage to systems and make repairs

Level 1
- After normal business hours, or
- Insufficient on-site resources, or
- Flame/smoke visible off-site, or
- Large affected area

RESPONSE
1. Notify on-site personnel
2. Call 911
3. Call Pattonville FD On-Duty Battalion Chief 314-393-4802
4. Call Robertson FD Assistant Fire Chief 314-575-5011
5. Notify MDNR 573-751-5401 (after hours 573-634-2436)
6. Suspend impacted, non-critical operations (unless such operation minimizes incident)
7. Coordinate extinguishment with Incident Commander
8. Monitor continuously for 48 hours to assure extinguishment
9. Assess potential damage to systems and make repairs
10. Resume regular operations with consent of Incident Commander

Landfill fires may be extinguished by smothering with dirt, water, or water/foam application. See Figure 2 for locations of dirt stock piles, water sources, and foam storage locations.
INITIAL ASSESSMENT
(by Facility Emergency Coordinator)

**Level 0**
- Injury handled with on-site first aid

**Level 1**
- Any injury requiring first responder or paramedic assistance

**RESPONSE**
1. Call 911
2. Follow 911 operator instructions until first responders arrive
3. Brief first responders and/or Incident Commander upon arrival—follow instructions
4. Bridgeton personnel may transport injured person to Command Center for transport if off-site treatment is required
INCIDENT – SUDDEN WASTE MOVEMENT

INITIAL ASSESSMENT
(by Facility Emergency Coordinator)

**Level 0**
- Movement within limits of temporary cap or
- Little or no exposed waste, and
- Minor odor release

**Level 1**
- Massive movement or
- Large exposure of waste material or
- Hot (steaming) or burning waste exposed

**RESPONSE**
1. Stabilize toe with soil
2. Turn off gas extraction wells within 200’
3. Lightly cover tension cracks with clean, clayey soil
4. Notify MDNR 573-751-5401
5. Call Pattonville FD On-duty Battalion Chief 314-393-4802
6. Call Robertson FD Assistant Fire Chief 314-575-5011
7. Monitor for one week, if no further movement, implement relocation of waste material and restoration

**RESPONSE**
1. Turn off gas extraction wells within 500’
2. Call Pattonville FD On-Duty Battalion Chief 314-393-4802
3. Call Robertson FD Assistant Fire Chief 314-575-5011
4. Notify MDNR 573-751-5401 (after hours 573-634-2436)
5. Stabilize toe with soil
6. Lightly cover exposed waste with clean, clayey soil while buttressing toe at direction of professional engineer
7. Monitor for one month, if no further movement, implement relocation and restoration
A leachate release may be assumed to be hot (scalding) hazard and may also be accompanied by odors and release of substances into surface water – see appropriate Incident Responses in this IMP.
6.0 RESUMPTION AND RESTORATION

Severe incidents could result in damage to facility infrastructure or an interruption in maintenance activities or operation of the transfer station. Bridgeton Landfill has ongoing retention agreements with a number of third-party contractors. These contractors can assist with restoration of critical site operation and maintenance functions.

In cases of Level 1 incidents, the Incident Commander will be involved in the decision and timing of resumption of activities. Restoration will be coordinated with the MDNR so that the landfill facility meets requirements.

In case of damage to equipment, follow all provisions of 40 CFR 265.196 regarding inspection, return-to-service, and certification of major repairs to any damaged equipment that has resulted in a release of a regulated substance. All emergency equipment listed in this plan must be replaced or cleaned and fit for its intended use before operations are resumed. Properly dispose of contaminated materials and personnel protective equipment.
7.0 AMENDMENT OF PLAN

This plan will be reviewed, and amended, if necessary, whenever:

- Applicable regulations are revised;
- The plan fails in an emergency;
- The facility changes its design, construction, operation, maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;
- Upon request/input of regulatory authorities;
- The list of emergency coordinators changes; and/or
- The list of emergency equipment changes.
**TABLES**
## RESPONSIBILITIES AND CONTACTS* (updated April 5, 2014)

### Primary Emergency Contact – Dial 911

**Site Personnel – 13570 St. Charles Rock Road, Bridgeton, MO 63044**

<table>
<thead>
<tr>
<th>Role</th>
<th>Contact 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility Emergency Coordinator</td>
<td>Derek Bouchard</td>
</tr>
<tr>
<td></td>
<td>Office: (314) 744-8172</td>
</tr>
<tr>
<td></td>
<td>Cell: (314) 302-3634</td>
</tr>
<tr>
<td>Alternate Emergency Facility Coordinator</td>
<td>Brian Power</td>
</tr>
<tr>
<td></td>
<td>Office: (314) 744-8165</td>
</tr>
<tr>
<td></td>
<td>Cell: (618) 410-0157</td>
</tr>
<tr>
<td>Alternate Emergency Facility Coordinator</td>
<td>Michael Lambrich</td>
</tr>
<tr>
<td></td>
<td>Office: (314) 744-8175</td>
</tr>
<tr>
<td></td>
<td>Cell: (314) 683-3921</td>
</tr>
</tbody>
</table>

### Regulatory Authorities

<table>
<thead>
<tr>
<th>Program</th>
<th>Hot Line - (573) 634-2436</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDNR–Solid Waste Management Program-- Operations</td>
<td>Brenda Ardrey</td>
</tr>
<tr>
<td>MDNR–Solid Waste Management Program-- Director</td>
<td>Chris Nagel</td>
</tr>
<tr>
<td>MDNR–Environmental Emergency Response (Spill Line)</td>
<td>Blackberry: (573) 680-5146</td>
</tr>
<tr>
<td>MDNR–Environmental Emergency Response – St. Louis Region -- Route 66</td>
<td>Cell: (573) 690-5371</td>
</tr>
</tbody>
</table>

### Local Authorities

<table>
<thead>
<tr>
<th>Department</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robertson Fire Dept.</td>
<td>Maynard Howell – Asst. Fire Chief</td>
</tr>
<tr>
<td>Pattonville Fire Dept.</td>
<td>Battalion Chief (Primary Contact)</td>
</tr>
<tr>
<td></td>
<td>Cell: (314) 393-4802</td>
</tr>
<tr>
<td></td>
<td>Matt Lavanchy (Secondary Contact)</td>
</tr>
<tr>
<td></td>
<td>Cell: (314) 393-4807</td>
</tr>
<tr>
<td></td>
<td>Office: (314) 739-3118</td>
</tr>
<tr>
<td>St. Louis County Local Emergency Planning Committee (LEPC)</td>
<td>Mark Diedrich – LEPC Coordinator</td>
</tr>
<tr>
<td></td>
<td>Office: (314) 628-5400</td>
</tr>
<tr>
<td></td>
<td>Bureau of Communications</td>
</tr>
<tr>
<td></td>
<td>24/7 Emergency: (314) 615-5360</td>
</tr>
</tbody>
</table>

### Other Contacts

<table>
<thead>
<tr>
<th>Organization</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSM DePaul Health Center</td>
<td>(314) 344-6000</td>
</tr>
<tr>
<td>St. Joseph Health Center</td>
<td>(636) 947-5000</td>
</tr>
<tr>
<td>National Response Center</td>
<td>(800) 424-8802</td>
</tr>
<tr>
<td>EPA Region VII</td>
<td>(913) 236-3778</td>
</tr>
</tbody>
</table>
**TABLE 2**

**LIST OF AVAILABLE ON-SITE RESOURCES**

<table>
<thead>
<tr>
<th>Resource</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Site Head Count in Office</td>
<td></td>
</tr>
<tr>
<td>Fire Hydrants</td>
<td>5 (see Figure 2)</td>
</tr>
<tr>
<td>Soil Stock Pile</td>
<td>10,000 cubic yards (see Figure 2)</td>
</tr>
<tr>
<td>Bulldozer</td>
<td>1</td>
</tr>
<tr>
<td>Front-End Loader</td>
<td>1</td>
</tr>
<tr>
<td>Water Truck (3500 gallon with cannon)</td>
<td>1</td>
</tr>
<tr>
<td>Water Truck (2000 gallon pump truck)</td>
<td>1</td>
</tr>
<tr>
<td>Water Truck Adaptor to 5” Storz Fitting</td>
<td>1</td>
</tr>
<tr>
<td>Excavators</td>
<td>4</td>
</tr>
<tr>
<td>Spill Cleanup Kits*</td>
<td>2</td>
</tr>
<tr>
<td>Eye Wash Station*</td>
<td>2</td>
</tr>
<tr>
<td>Portable Fire Extinguishers*</td>
<td>12</td>
</tr>
<tr>
<td>Steel Gate for Culverts</td>
<td>2</td>
</tr>
<tr>
<td>Vacuum Trucks</td>
<td>2</td>
</tr>
<tr>
<td>ATVs (2-man with tool bed)</td>
<td>5</td>
</tr>
<tr>
<td>ATV (4-man with tool bed)</td>
<td>1</td>
</tr>
<tr>
<td>Aluminized Approach Suits</td>
<td>2</td>
</tr>
<tr>
<td>Multi RAE Lite VOC Meter</td>
<td>1</td>
</tr>
<tr>
<td>RKIGX-2009 4 Gas Meters</td>
<td>8</td>
</tr>
<tr>
<td>Five-gallon Containers Class A, SFFF Structural Fire Foam**</td>
<td>40</td>
</tr>
</tbody>
</table>

*At all facility vehicles, each flare yard, leachate loadout and MBI maintenance building
** At Emergency Meeting and Coordination Area, Entrance 1
FIGURES
BRIDGTON LANDFILL, LLC
13570 ST. CHARLES ROCK ROAD
BRIDGETON, MISSOURI

FACILITY LOCATION

DRAWN BY: JMM
CHECKED BY: MRB
APPROVED BY: MRB
DATE: APR. 2014
DWG SCALE: NONE
PROJECT NO.: 121-337
NOTE
1. A THIRD ALTERNATE COMMAND CENTER (IF REQUIRED) WOULD
BE LOCATED AT THE PATTONVILLE FIRE PROTECTION DISTRICT
ADMINISTRATIVE OFFICE AT 13900 ST. CHARLES ROCK ROAD.

REFERENCE
SOURCE: Google Earth Pro © 2012 Google

BRIDGETON LANDFILL, LLC
13570 ST. CHARLES ROCK ROAD
BRIDGETON, MISSOURI

FACILITY MAP


Civil & Environmental Consultants, Inc.
28373 Beck Road · Suite H-10 · Wixom, MI 48393
248-374-8600 · 248-374-8599
www.cecinc.com

DATE: APR. 2014 DWG SCALE: NONE
DRAWN BY: JMM CHECKED BY: MRB
APPROVED BY: MRB PROJECT NO.: 121-337
FACILITY MAP

SOURCE: Google Earth Pro © 2012 Google

NOTE
1. A THIRD ALTERNATE COMMAND CENTER (IF REQUIRED) WOULD
BE LOCATED AT THE PATTONVILLE FIRE PROTECTION DISTRICT
ADMINISTRATIVE OFFICE AT 13900 ST. CHARLES ROCK ROAD.
\textbf{FIGURE 3 \quad SITE ACCESS AND OPERATIONS}\\

\textbf{LEGEND}\\

\begin{itemize}
  \item \textbf{BULK STORAGE CONTAINERS (ALL OUTDOORS)}
  \begin{itemize}
    \item 1 - aboveground diesel fuel storage tank = 500 gal
    \item 2 - aboveground diesel fuel storage tank = 500 gal
    \item 3 - aboveground diesel fuel storage tank = 500 gal
    \item 4 - aboveground diesel fuel storage tank = 500 gal
    \item 5 - aboveground diesel fuel storage tank = 500 gal
    \item 6 - aboveground gasoline fuel storage tank = 30 gal
    \item 7 - propane storage tank = 100 lb
    \item 8 - propane storage tank = 100 lb
    \item 9 - propane storage tank = 100 lb
    \item 10 - propane storage tank = 100 lb
    \item 11 - propane storage tank = 100 lb
    \item 12 - propane storage tank = 100 lb
    \item 13 - propane storage tank = 100 lb
  \end{itemize}

  \item \textbf{EXISTING YARD HYDRANT AND FIRE HYDRANT}

  \item \textbf{NATURAL GAS LINE}

  \item \textbf{ABOVEGROUND ELECTRIC LINE}

  \item \textbf{POWER SUPPLY RAIL}

  \item \textbf{ON-SITE ALL-WEATHER ROADS AND STAGING AREAS ACCESSIBLE BY PUBLIC EMERGENCY RESPONSE}

  \item \textbf{ON-SITE ALL-WEATHER ROADS ACCESSIBLE BY BRIDGETON LANDFILL EQUIPMENT}
\end{itemize}

\textbf{NOTE}\\

1. A third alternate command center (if required) would be located at the Patchville Fire Protection District Administrative Office at 13900 St. Charles Rock Road.

\textbf{"QUADRANT" DESIGNATIONS}\\

A  = SOUTH QUADRANT - NE QUADRANT\\
B  = SOUTH QUADRANT - SE QUADRANT\\
C  = SOUTH QUADRANT - SW QUADRANT\\
D  = SOUTH QUADRANT - NW QUADRANT\\
E  = NORTH QUADRANT AREA

\textbf{SCALE HOUSE (OCCUPIED 24 HRS PER DAY, EXCEPT SAT, 11PM TO SUN. MIDNIGHT)}

\textbf{ENSURE ALL ACCESS TO ELECTRICITY, GAS, WATER, SEWER, AND COMMUNICATION LINES IS KEPT CLEAR FOR FULL FUNCTIONAL ACCESS TO EXISTING YARD HYDRANTS AND FIRE HYDRANTS.}

\textbf{SCALE IN FEET}
LEACHATE TREATMENT AREA

LEGEND

BULK STORAGE CONTAINERS

1. - MINGE 3120 SUPPRESSOR - 300 GAL
2. - MINGE 3120 SUPPRESSOR - 300 GAL
3. - MINGE 3120 SUPPRESSOR - 300 GAL
4. - MINGE 3120 SUPPRESSOR - 300 GAL
5. - MINGE 3120 SUPPRESSOR - 300 GAL
6. - MINGE 3120 SUPPRESSOR - 300 GAL
7. - MINGE 3120 SUPPRESSOR - 300 GAL
8. - MINGE 3120 SUPPRESSOR - 300 GAL
9. - CONC. BULK.TANK - 50 GAL
10. - CONC. BULK.TANK - 50 GAL
11. - CONC. BULK.TANK - 50 GAL
12. - BULK.TANK 32B - 55 GAL
13. - BULK.TANK 55 - 55 GAL
14. - BULK.TANK 55 - 55 GAL
15. - BULK.TANK 55 - 55 GAL
16. - BULK.TANK 55 - 55 GAL
17. - MINGE 3120 SUPPRESSOR - 300 GAL
18. - MINGE 3120 SUPPRESSOR - 300 GAL
19. - MINGE 3120 SUPPRESSOR - 300 GAL
20. - MINGE 3120 SUPPRESSOR - 300 GAL
21. - MINGE 3120 SUPPRESSOR - 300 GAL
22. - MINGE 3120 SUPPRESSOR - 300 GAL
23. - MINGE 3120 SUPPRESSOR - 300 GAL
24. - MINGE 3120 SUPPRESSOR - 300 GAL
25. - MINGE 3120 SUPPRESSOR - 300 GAL
26. - MINGE 3120 SUPPRESSOR - 300 GAL
27. - MINGE 3120 SUPPRESSOR - 300 GAL
28. - MINGE 3120 SUPPRESSOR - 300 GAL
29. - MINGE 3120 SUPPRESSOR - 300 GAL
30. - MINGE 3120 SUPPRESSOR - 300 GAL
31. - MINGE 3120 SUPPRESSOR - 300 GAL
32. - ALUMINUM 99% HYDROXIDE - 6,000 GAL
33. - ALUMINUM 99% HYDROXIDE - 6,000 GAL
34. - ALUMINUM 99% HYDROXIDE - 6,000 GAL
35. - ALUMINUM 99% HYDROXIDE - 6,000 GAL
36. - ALUMINUM 99% HYDROXIDE - 6,000 GAL
37. - ALUMINUM 99% HYDROXIDE - 6,000 GAL
38. - ALUMINUM 99% HYDROXIDE - 6,000 GAL
39. - ALUMINUM 99% HYDROXIDE - 6,000 GAL
40. - ALUMINUM 99% HYDROXIDE - 6,000 GAL

GENERAL LEGEND

- BULK STORAGE CONTAINERS
- CONC. BULK.TANK
- BULK.TANK
- MINGE 3120 SUPPRESSOR
- GAS FLARE
- COMPOUND
- GAS FLARE YARD
- LEACHATE TREATMENT AREA
- EASTERN FLARE YARD
- LEGEND
- WATER\GAS PIPE
- ELECTRIC LINE
- POWER SUPPLY PANEL

KEY

NOTES

1. A THIRD ALTERNATE COMMAND CENTER (IF REQUIRED) WOULD BE LOCATED AT THE PATTONVILLE FIRE PROTECTION DISTRICT ADMINISTRATIVE OFFICE AT 13900 ST. CHARLES ROCK ROAD.

2. THE LEACHATE TREATMENT AREA DEPICTED DOES CONTAIN 100 LB PROPANE FUEL TANKS AND 500 GAL DIESEL FUEL TANKS (SEE FIGURE 3 FOR MORE DETAILS).

INCIDENT MANAGEMENT PLAN (IMP)
CHEMICAL STORAGE AREAS
APR. 2014
1" = 100'
INCIDENT MANAGEMENT PLAN (IMP)
CHEMICAL STORAGE AREAS
APR. 2014
SCALE VARIES
FIGURE 4B
ATTACHMENT A

FACILITY EMERGENCY COORDINATOR CHECKLIST / EMERGENCY RESPONDER COMMUNICATION
FACILITY EMERGENCY COORDINATOR CHECKLIST / EMERGENCY RESPONDER COMMUNICATION

a. Make initial classification and categorize incident

b. Initiate proper response strategy (Section 5). For notifications, collect the following information and communicate it to notified parties:

- Location of the incident (by Quadrant)
- Gate location closest to the incident
- Incident Type and Level (0 or 1)

c. Account for facility personnel

d. Assure appropriate access gates are open

e. Determine if environmental release is occurring and contain

f. Restore and resume normal operation

INCIDENT DETAIL

Date and Time of Incident: ________________________________
Facility Coordinator: ________________________________
Description of Incident:

__________________________________________________________________
__________________________________________________________________

Date and Time Resume Normal Activity: ______________________
ATTACHMENT B

SPILL PREVENTION AND RESPONSE FOR LEACHATE
Spill Prevention and Response for Leachate

Spill Prevention

Leachate is collected from wells and collection sumps throughout the landfill. The leachate is piped to collection tanks either directly or via internal lift station. There are currently two internal lift stations. Under normal operations, leachate is collected in Tank 1 (one of four 1-million gallon tanks), treated in in the 316K tank and then stored in Tank 2 for load out. Tanks 3 and 4 and the 96 tank are available for additional storage capacity of leachate either before or after treatment. Treated leachate is transferred to hauling trucks at the Leachate Loadout station. Table 1 lists of the devices and practices in place to prevent spills of leachate.

Table 1 Spill Prevention Devices and Practices

<table>
<thead>
<tr>
<th>Spill Prevention Devices and Practices</th>
<th>96K Tank</th>
<th>316K and 1M Tanks</th>
<th>Frac Tanks</th>
<th>Pumps and Lift Stations</th>
<th>Leachate Piping</th>
<th>Truck Load Out Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCADA level sensor</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Minimum freeboard</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>High level alarm light</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Overfill prevention feed shutoffs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bypass valves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary tank containment</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>NA</td>
<td>*</td>
</tr>
<tr>
<td>Dual containment piping</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Pumps turned off during maintenance</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Dry disconnect couplings</td>
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<td>NA</td>
<td>*</td>
<td>NA</td>
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<td>NA</td>
</tr>
<tr>
<td>Drip pans</td>
<td>NA</td>
<td>NA</td>
<td>*</td>
<td>NA</td>
<td>*</td>
<td>NA</td>
</tr>
<tr>
<td>Vac Truck available to clean containment</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>Daily inspection</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

1 Buffer tank farm has clay berm. Sparge units have no secondary containment but have been deactivated.
2 Loading is monitored continuously by driver

Leachate Piping

- All leachate conveyance piping is dual containment with the exception of the pressurized well manifolds. This piping lies entirely on top of flexible membrane line and is connected to dual containment sumps. Single walled piping may be used in temporary applications when necessary.
- There are no hose flanges or connections in piping. The only connections are at pumps, valves and the tanks, all of which have containment systems.
During maintenance involving pipe disconnection, pipes are vacuumed with a vac truck as needed to avoid spillage; there are two vac trucks on site.

- Drip pans are used as needed during pipe disconnection during maintenance.

**Leachate Pumps and Lift Station**

- Each lift station is equipped with a high level alarm that activates a second pump to reduce volume quickly. If necessary, a second high-high level alarm triggers an automatic by-pass of the lift station and sends leachate directly to Tank 1.
- The lift stations and LCSs are equipped with SCADA monitoring and controls.
- Pumps and valve connections are within dual containment vaults.
- During maintenance, affected pumps are shut off and/or squeeze-off tools/valves are used to redirect leachate.
- After maintenance, leachate is removed from vaults and containments with a vacuum truck.

**316K and 1M Tanks**

- Tanks are in secondary containment systems capable of holding 110% of the capacity of the tank.
- Tank filling is conducted manually by on/off switch at the control panel and is monitored by staff on site 24 hours, 7 days per week.
- Tanks are monitored via SCADA equipment. Additional analogue gauges are being installed.
- There is a 22’ maximum fill height; when freeboard is exceeded, the SCADA displays a high level on-screen alarm.
- The SCADA system is designed to generate a phone or email message to designated users when high level is reached. This feature is under development and not yet implemented.
- There is a high–level alarm light on the SCADA panel at the tank.
- Tank and containment are inspected daily; staff are on site 24 hours, 7 days per week.

**96K Tank**

- The tank has a secondary containment system capable of holding 110% of the capacity of the tank.
- There is an overfill bypass system to the secondary containment with a sump to the MSD lift station (currently incapacitated).
- Tank filling is conducted manually by on/off switch at the control panel and is monitored by staff on site 24 hours, 7 days per week.
- Tanks are monitored via SCADA equipment.
- There is a 29’1” foot maximum fill height; when freeboard is exceeded, the SCADA displays a high level on-screen alarm.
- The SCADA system is designed to generate a phone or email message to designated users when high level is reached. This feature is under development and not yet implemented.
- The Tank has a high level light on the control panel.
- The Tank and containment are inspected daily and staff are on site 24 hours, 7 days per week.
**Truck Leachate Loadout Station**

- Leachate loading station has a concrete containment.
- The containment drains to a sump pump that pumps liquid back to the 316K tank.
- Truck leachate loading is monitored continuously by the driver in an overhead safety cage; engineering controls prevent the driver from leaving the area during filling.

**Frac Tanks**

- Regular use of frac tanks has been discontinued. All frac tanks on site are in the process of being emptied and decommissioned.
- Each frac tank has an isolation/shut off valve.
- The buffer tank farm has a clay containment berm and on-site vac trucks to enable quick response to remove any spills.
- During piping changes or maintenance, pipes are vacuumed with a vac truck to avoid spillage.
**Spill Response**

**Prevent Additional Release**

If there is a release of leachate from a tank, container, piping, secondary containment or other equipment, or if any equipment that is used for managing leachate which becomes unfit for use, the equipment must be removed from service as soon as safely practicable.

In the event of a failure of equipment, landfill technicians or contract leachate workers under the supervision of a landfill Environmental Specialist/Manager will immediately take steps to shut off pumps and valves as necessary to relieve pressure from the affected tank or line and isolate it from the rest of the system.

If the landfill stops operations in response to a fire, explosion, or release, the Facility Emergency Coordinator or his designee must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes or other equipment, wherever this is appropriate.

If the release is from a tank or container, waste must be removed to prevent further release to the environment and to allow inspection and repair of the vessel.

Immediately or as soon as safely possible, take steps to prevent further migration of the release. If a release is contained within a secondary containment system, all released leachate must be removed within 24 hours or in as timely a manner as is practicable to prevent harm to human health and the environment. All recovered leachate must be treated, stored, and disposed to prevent further release or exposure and insure compliance with applicable regulations.

**Notification**

In addition to the notifications described in the flow diagram titled “Incident Leachate Release” the Facility Emergency Coordinator will submit a written report within 15 days after any Level 1 incident to the Missouri DNR. The report must contain the following:

- Name, address, and telephone number of the facility,
- Date, time, and type of incident (e.g. surface fire, explosion),
- Quantity of leachate involved,
- Extent of injuries, if any,
- An assessment of actual or potential hazards to human health or the environment, where this is applicable,
- Disposition of leachate,
- Likely route of migration of the release,
- Description of response actions taken or planned,
- Characteristics of the surrounding soil (soil composition, geology, hydrogeology, (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data must be submitted to the Missouri DNR as soon as they become available; and
- Proximity to downgradient drinking water, surface water, and population areas.
Assessment, Containment and Immediate Cleanup

For any release of leachate to the ground, regardless of whether it is contained in the stormwater collection system, the Facility Emergency Coordinator (or designee when the Facility Emergency Coordinator is on call) must immediately:

- Identify the exact source, amount, and extent of any released leachate,
- Assess possible hazards to human health or the environment that may result from the release,
- Activate internal facility alarms or communication systems, for Level 1 release,
- Notify appropriate state or local agencies,
- Clean up – Small Spill. For small spills or leaks that are not likely to migrate offsite, sorbent pads and granular spill sorbent and containers will be used. Shovels, and if necessary, a front loader are available to remove contaminated sorbent and place it in appropriate containers for characterization and proper disposal,
- Clean up – Large Spill. In the event of a significant release to the ground, including to the storm water collection system, crews will place the steel gate over the mouth of the culvert and place the fill materials to seal it and prevent further migration of liquids. Crews will immediately mobilize an onsite vacuum truck to remove liquids from the stormwater collection system. Any visible contamination of soil or surface water will be removed and stored in on-site tanks or containers for characterization prior to disposal. Should any leachate migrate past the culvert, they would drain to a stormwater detention basin where they will be removed as soon as possible using vacuum truck or pump, and placed in tanks or containers for proper characterization and disposal. If necessary, create berms within the stormwater detention basin to isolate the leachate and limit mixing with stormwater to the extent possible.
ATTACHMENT C

MSDS
(Provided Separately)