# INCIDENT MANAGEMENT PLAN (IMP)

**with**

# CONTINGENCY PLAN AND EMERGENCY PROCEDURES

# BRIDGETON LANDFILL

**and**

# WEST LAKE LANDFILL

Prepared for:

WEST LAKE LANDFILL OPERABLE UNIT-1 RESPONDENTS

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## 1.0 INTRODUCTION

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). As used throughout this plan, the term "incident" means 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.

The West Lake Landfill Superfund Site is a 200 acre site located in the western portion of St. Louis County near the intersection of Interstate 70 and Interstate 270, approximately 1.5 miles east of the Missouri River (Figure 1). The site is bounded to the east and northeast by St. Charles Rock Road (State Highway 115). Commercial and industrial properties bound the site immediately to the north, across St. Charles Rock Road to the north and east, and to the south. The site is bounded to the west by Old St. Charles Rock Road (now vacated) and the Earth City Industrial Park stormwater/flood control pond. The Earth City complex continues to the west and north of the stormwater/flood control pond and extends from the site to the Missouri River. Earth City is separated from the river by an engineered levee system owned and maintained by the Earth City Flood Control District.

The West Lake Landfill includes four identified waste disposal areas: Radiological Area 1 (Area 1), Radiological Area 2 (Area 2), a closed demolition landfill, and an inactive sanitary landfill. Waste materials containing radionuclides have been identified in the two solid waste disposal areas designated as Areas 1 and 2, in which municipal solid waste (MSW) and industrial wastes were disposed from approximately the late 1940s or early 1950s until these areas ceased operation in 1974. Based on the presence of radionuclides in these two areas, EPA designated these two areas as OU-1 of the West Lake Landfill Superfund Site. The other areas were designated as Operable Unit-2 (OU-2).

The permitted Bridgeton Landfill, which includes the North and South Quarry Areas, is also located at the site (Figure 2). In 1979, landfilling began in the North Quarry pit. Landfilling continued in this area until 1985, when the landfill underwent expansion to the southwest into the South Quarry pit. Bridgeton Landfill is currently an inactive landfill, having stopped receiving waste in December 2004 pursuant to an agreement with the City of St. Louis to reduce the potential for birds to interfere with airport operations.



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Pursuant to a Unilateral Administrative Order for Removal Action (EPA Docket No. CERCLA-07-2016-0002) (the UAO), EPA is requiring the named West Lake Landfill Superfund Site Operable Unit-1 Respondents (Bridgeton Landfill, LLC, Rock Road Industries, Inc., and Cotter Corporation (N.S.L.)) to prepare an incident management plan for OU-1 of the West Lake Landfill. Because there are no ongoing activities associated with OU-1 other than various investigations and monitoring (*i.e.,* active landfilling operations in Areas 1 and 2 ceased in 1974, as noted above), and because of the relative proximity of OU-1 to the Bridgeton Landfill, Bridgeton Landfill on-site personnel will likely be the first to identify a possible incident within OU-1 and initiate response activities. Consequently, it was determined that, rather than preparing a separate IMP for West Lake Landfill, the existing Bridgeton Landfill IMP would be modified to address potential incidents that might occur within or related to West Lake Landfill OU-1.[1] Therefore, this plan is based on and augments a plan previously prepared by Civil and Environmental Consultants, Inc. (CEC) for Bridgeton Landfill to prevent and respond to incidents specifically related to Bridgeton Landfill (CEC, 2015).

At the Bridgeton Landfill, 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.

Further, a recognized heat-generating event (referred to as a "subsurface reaction," or SSR) is occurring within a portion of the South Quarry area of the Bridgeton Landfill. 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 separately to the Missouri Department of Natural Resources (MDNR) to describe special observations and preventative maintenance procedures, which Bridgeton Landfill personnel are implementing to manage the Bridgeton Landfill and SSR. 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 SSR.

In addition to the OM&M Plan, the Bridgeton Landfill 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 Bridgeton Landfill facility office.

Bridgeton Landfill creates, stores, treats and disposes of leachate as part of its operation. Constituents contained in the leachate have, at times, exceeded levels at which it could be

[1] EPA's February 19, 2016 comments on the Framework for Development of an IMP for West Lake Landfill support development of a single IMP for the entire Site.

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 RCRA TCLP hazardous threshold for benzene which carries the waste code D018. Leachate is currently treated in a Clean Water Act permitted waste water treatment unit and the facility is a Conditionally Exempt Small Quantity Generator. However, as a proactive measure, Bridgeton Landfill implemented contingency planning, training and safety measures meeting the requirements applicable to a large quantity 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 40 CFR 265, Subpart D – Contingency Plan and Emergency Procedures.

Based on the presence of radionuclides in West Lake Landfill OU-1 Areas 1 and 2, these two areas have been designated as restricted and as such are completely fenced, and access to these areas is controlled. As noted above, the only activities that occur within Areas 1 and 2 are related to investigations and actions conducted pursuant to orders issued by EPA. These investigations and actions are performed pursuant not only to the overall Bridgeton Landfill Health and Safety Plan (Bridgeton Landfill HASP) but also in accordance with health and safety plans prepared for each specific work task to be conducted in Areas 1 and 2 (WLL Task-Specific HASPs). These WLL Task-Specific HASPs address not only personnel protection and monitoring but also responses to certain types of incidents such as personnel injuries.

These Task-Specific HASPs, however, do not address responses to fire or other non-task related incidents that may occur at the Site, which are the subject of this IMP. In particular, this IMP includes a framework for notification of first responders and protection of first responders or other non-OU-1 personnel from exposure to radionuclides and radiation should such individuals need to enter Areas 1 and 2 during a response to a possible incident in these areas.

The remainder of this IMP is composed of the following sections:

2.0 Description of Bridgeton Landfill and West Lake 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.



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## 2.0 DESCRIPTION OF BRIDGETON LANDFILL AND WEST LAKE LANDFILL

### 1. 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 late 1940s or 1950s, portions of the property were backfilled with municipal wastes, industrial wastes, and construction and demolition debris. Landfill operations ceased in 2004.

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

Although active landfilling operations have ceased, many other activities are occurring at the Bridgeton Landfill, including:

- Placement and maintenance of cover materials;
- Collection, management, and destruction of landfill decomposition gas;
- Generation, collection, storage, treatment 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 South Quarry area are experiencing higher-than-typical temperatures resulting from a heat-generating (exothermic) subsurface reaction (SSR) taking place within the waste. Heightened monitoring and maintenance of the facility is required to control the SSR and its effects.

### 2. West Lake Landfill OU-1

West Lake Landfill OU-1 includes two distinct and separate areas (Areas 1 and 2) outside the Bridgeton Landfill. These areas were used for disposal of municipal and industrial wastes beginning in the 1950s through 1974. Area 1 is 17.6 acres and Area 2 is 42.4 acres in size. OU-1 also encompasses the parcel of land identified as the "Buffer Zone" located adjacent to Area 2. See Figures 2 and 3. Investigations of these areas have identified occurrences of radionuclides,



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primarily thorium-230 and radium-226 and their associated daughter products, within the waste materials in these areas. The primary possible radionuclide exposures within these areas are associated with direct radiation exposure from gamma radiation and direct contact, ingestion, or inhalation of radiologically-impacted material ("RIM").



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## 3.0 DEFINITIONS

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| 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. |
| Radiation Safety Technician | A health physicist retained by West Lake Landfill OU-1 Group who will provide radiation safety monitoring, radiation screening of all personnel and equipment exiting OU-1 and be available for general consulting to the first responders regarding radiation, radiation protection and radiation monitoring. |
| 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 Department of Health (DoH), and the Federal Aviation Administration (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 Landfill, LLC 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. |



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| | |
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| 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. |



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## 4.0 INCIDENT PREVENTION

Many voluntary and required programs and documents are used to minimize hazards and protect employee and public health and safety at the Bridgeton Landfill and West Lake Landfill. 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 Bridgeton Landfill. These documents are available at the Bridgeton Landfill 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 to receive certain training pursuant to Occupational Health and Safety Administration (OSHA) regulations in advance of performing certain tasks.

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

As noted above, an SSR is occurring within a portion of the Bridgeton Landfill. 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 SSR.

In addition to the above documents, Bridgeton Landfill 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 Bridgeton Landfill office.

West Lake Landfill OU-1 Health and Safety and Radiation Safety Plans and Procedures

Activities conducted to prevent potential incidents or minimize the impacts if an incident were to occur within West Lake Landfill OU-1 Areas 1 and 2 are set forth in the various West Lake Landfill OU-1 Health and Safety and Radiation Safety Plans and Procedures.



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A Task-Specific HASP is prepared for each activity that is conducted in West Lake Landfill OU-1. The HASP includes a description of the work to be performed, an evaluation of potential hazards and controls to mitigate such hazards, training requirements, general health and safety procedures, and emergency contacts, procedures and contingency plans. A Radiation Safety Plan (RSP) is also prepared for each task. The RSP describes individual and organization responsibilities, radiation protection requirements, health physics controls, reporting and record keeping, emergency response, and an evaluation of potential radiological doses from the anticipated tasks to identify the processes and tasks that pose the greatest potential for exposure and, if necessary, modifications to these processes and tasks to keep the radiation doses As-Low-As-Reasonably-Achievable (ALARA). All personnel working within OU-1 are required to read the HASP and RSP.

In addition, a daily Job Safety Analysis (JSA) is prepared for each activity to be conducted each day. The JSA describes the specific activities to be conducted, any hazards associated with such activities, and controls to mitigate these hazards.

All personnel that enter Areas 1 or 2 are required to have completed a 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training and associated annual 8-hour update training, as specified by OSHA under 29 CFR 1910.120. In addition, all personnel who enter OU-1 are required to participate in General Employee Radiation Training (GERT) every two years.

Finally, all personnel who work within OU-1 are required to attend daily health and safety briefings that cover the work to be performed within OU-1 on a particular day, potential hazards that may be encountered, and safety procedures to avoid such potential hazards.

Access and Staffing

The Bridgeton Landfill is staffed 24 hours a day, 7 days a week, including holidays. During business hours, Bridgeton Landfill is staffed by technicians, specialists, managers, and third-party consultants/contractors – all of whom have received Bridgeton Landfill's site-specific contractor training, which includes an overview of health and safety and emergency response measures. In addition, during the night shift, third-party contractors are employed to complete various tasks, including hazard identification, at and around the Site. Finally, both a manager and a technician are on call at all times (see Table 1 for contact information) to respond to incidents and are trained in all elements of this IMP such that the IMP will be implemented twenty-four (24) hours per day, seven (7) days per week.



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Personnel are generally also present in OU-1 Areas 1 and/or 2 approximately ten (10) or more hours per day, five (5) days per week in conjunction with ongoing investigation and removal action activities. The lead health physics technician and the OU-1 Project Coordinator and their designated alternate contacts are also on call at all times (see Table 1 for contact information) and are trained (or will be trained upon finalization of this Plan) in all elements of this IMP such that the IMP can be implemented by OU-1 personnel.

Electronic and video surveillance

The Bridgeton Landfill currently has continuous, controlled access and a 24/7 routine inspection monitoring program in place. In addition to this program, Bridgeton Landfill has identified two additional surveillance observation points (see Figure 3) which have been added to the routine inspection program to augment surveillance of Areas 1 and 2. We anticipate that visual inspections of Areas 1 and 2 will be performed on a regular and continuous basis until the non-combustible cover over Areas 1 and 2 is installed and it is demonstrated that the remaining vegetation does not pose a risk of release. The 24-hour controlled access to OU-1 Areas 1 and 2 (as well as oversight during all activities conducted in OU-1 Areas 1 and 2) will continue through implementation of the EPA-selected remedial actions for OU-1.

Further, in response to EPA's directive to implement electronic video surveillance, a series of cameras will be installed to provide video coverage of Areas 1 and 2. It is expected that the cameras will be installed at the OU-1 Area 1 and Area 2 site trailers and that either multiple cameras with different fields of view or a single oscillating camera will be installed at each of the site trailers. Upon installation of the non-combustible cover required by the UAO, an operating plan for implementation of the electronic video surveillance will be submitted. Any potential future surveillance activities that may occur after commencement of remedial design will be described in the remedial design planning documents.



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## 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 Authorities and/or Local Authorities may 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 Site fall into one of the following categories:

- Surface Fire (vegetation or landfill 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, including the procedures for notification by Bridgeton Landfill personnel to local emergency responders as well as the appropriate regulatory agencies.



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# 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 & St. Louis Co. DoH re: Bridgeton Landfill incident or EPA R7 RPM/OSC re: West Lake Landfill OU-1 incident
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

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.

***Level 1***

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

**RESPONSE**

**Provide clear, precise description of the emergency**

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) & St. Louis Co. DoH re: Bridgeton Landfill incident and EPA R7 RPM/OSC re: West Lake Landfill OU-1 incident
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



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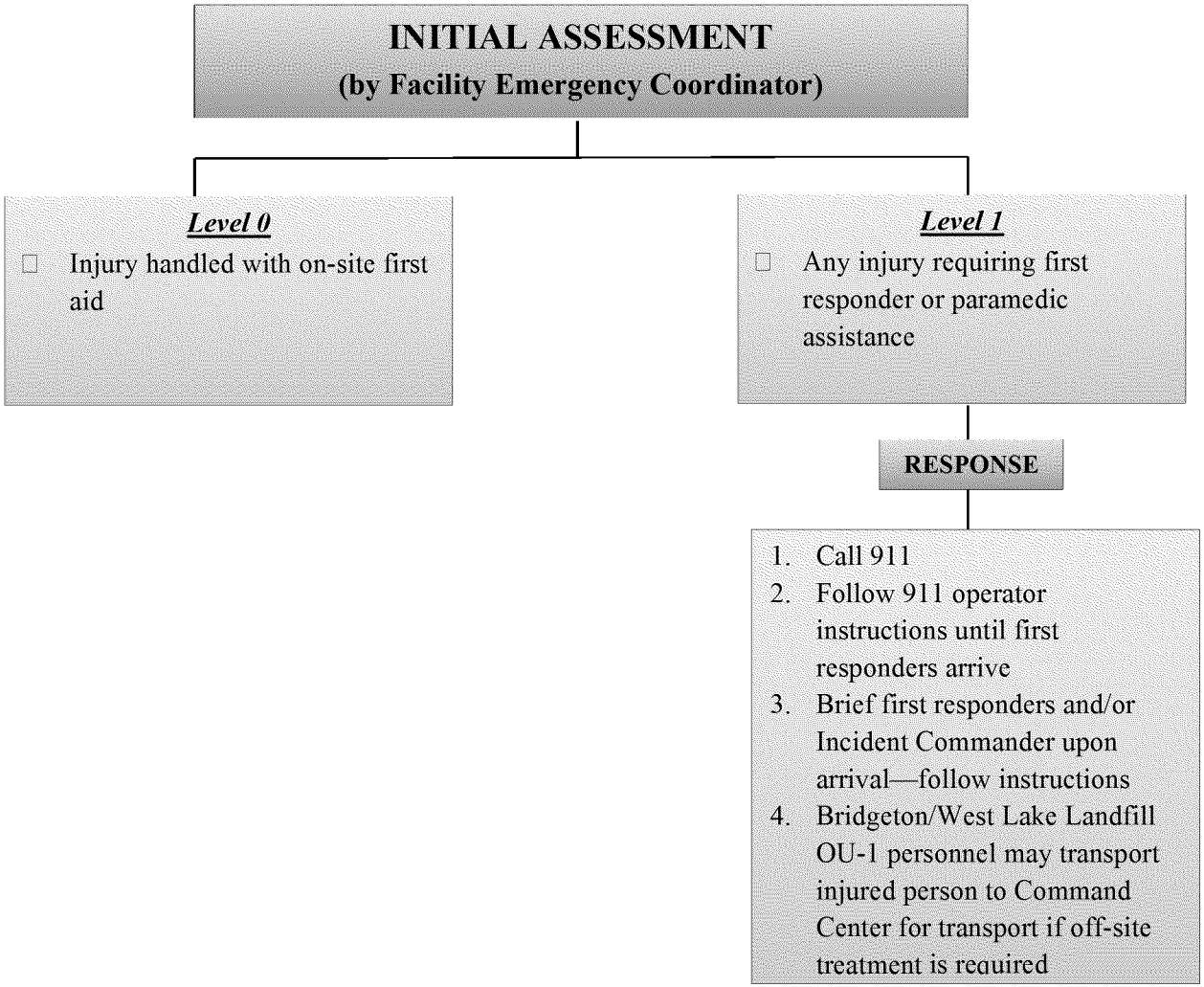
# INCIDENT – PERSONAL INJURY
# MAN DOWN / PERSONNEL CONTAMINATION



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# 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

**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& St. Louis Co. DoH re: Bridgeton Landfill incident or EPA R7 RPM/OSC re: West Lake Landfill OU-1 incident
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

***Level 1***

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

**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) & St. Louis Co. DoH re: Bridgeton Landfill incident and EPA R7 RPM/OSC re: West Lake Landfill OU-1 incident
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



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# INCIDENT – SUDDEN WASTE MOVEMENT

**INITIAL ASSESSMENT**
**(by Facility Emergency Coordinator)**

***Level 0***

- Event duration less than one hour and no visible off-site emissions and
- Leachate is contained to surface of landfill

**RESPONSE**

1. Create berm on landfill to capture liquid
2. Arrest release with temporary well cap or new wellhead
3. Note event in site records

***Level 1***

- Event duration greater than one hour or
- Emissions visible off-site or
- Leachate reaches beyond on-site surface water management features

**RESPONSE**

1. Verify stormwater knife gates are shut and contain liquids in retention basin to extent possible
2. Arrest release
3. Notify MDNR 573-751-5401 (after hours 573-634-2436) & St. Louis Co. DoH
4. Call MDNR Spill Line 573-634-2436
5. Call Pattonville FD On-duty Battalion Chief 314-393-4802
6. Call Robertson FD Assistant Fire Chief 314-575-5011
7. Notify LEPC 314-615-9500/314-615-5360 (after hours)
8. Note event in site records and report to MDNR in regular written report

*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. Note: This type of incident and associated responses does not apply to West Lake Landfill.



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The same types of potential incidents identified for Bridgeton Landfill also apply to West Lake Landfill, with the exception of a possible leachate release because there are no leachate collection or handling systems in OU-1 Areas 1 and 2. The anticipated res ponses to a surface fire incident, personal injury/man down/personnel decontamination incident, or sudden waste movement incident would be the same as those for Bridgeton Landfill with the exception that there are no landfill gas extraction wells within Areas 1 and 2 and therefor e the response action of turning off gas extraction wells would not apply. Furthermore, because OU- 1 is under EPA authority, EPA would be the regulatory agency to be notified relative to an incident in OU-1, as opposed to MDNR as specified for an incident related to Bridgeton Landfill. Se e the above pages for details of the incident response measures to be applied in the event of the different incidents specified therein.

In addressing an incident that may occur within the boundaries of Area 1 or Area 2, the following priorities should be followed:

1. Address the incident from outside of Area 1 or 2 to the extent possible such as performing fire suppression actions from outside the boundaries if possible;
2. If entry is required into Area 1 or 2 to respond to an incident make every attempt to confine vehicles and personnel to the roads and portions of Areas 1 and 2 that are covered by rock material; and
3. If entry into portions of Areas 1 and 2 that are not covered by rock is necessary, utilize Tyvek suits, boot covers and plastic gloves (available at the OU-1 Area 1 and Area 2 command trailers shown on Figure 3) to the extent possible.

In the event that entry into Areas 1 and 2 is necessary, all personnel and equipment should be subject to radiation screening upon exiting Area 1 or 2. Radiation screening will be provided by the OU-1 health physics technician or his alternate (Table 1).

In addition, because of the presence of radionuclides in OU-1 Areas 1 and 2, the West Lake Landfill OU-1 health physicist and the OU-1 project coordinator should be contacted (Table 1) in order to coordinate the provision of any additional personnel protective equipment that may be required for entry into Area 1 (*e.g.,* Tyvek suits, boot covers, gloves, etc.) beyond that used by the First Responders or other personnel that perform work in Area 1 or 2, as well as health physics services for monitoring and screening of personnel and equipment in the event that personnel or equipment need to enter OU-1 as part of any incident response.

Contact information for these personnel are provided on Table 1. Based on their prior training and/or experience, these personnel are qualified to respond to emergencies at or in OU-1.



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Currently, office trailers and associated facilities (e.g., equipment decontamination pads, decontamination water, and investigative-derived waste storage units, etc.) are located at the entrances to both Areas 1 and 2. The locations of these facilities are shown on Figure 3. These facilities will be maintained to serve as potential additional command post locations in the event that an incident occurs in Area 1 or 2. Use of the Area 1 and 2 command posts as possible additional command post locations (beyond those previously identified above) for responding to an incident that may occur in Areas 1 and 2 is subject to the nature of the incident as well as wind direction at the time.

In the event that response to an incident in OU-1 prior to completion of installation of the noncombustible cover directed by EPA's Administrative Order involves application of water that could run off of Area 1 or Area 2 (*e.g.,* use of water to suppress a vegetation fire), temporary berms will be constructed within the downstream stormwater channels as necessary to create temporary retention structures to prevent water from running off the site into the stormwater conveyance system along the perimeter of Areas 1 and 2. Any runoff water (including fire suppression water) that may accumulate within such temporary retention structures will subsequently be pumped into storage tanks and tested to determine the appropriate method for ultimate management and disposition of such water. This additional response measure will not be required following installation of the noncombustible cover since that cover will eliminate the risk that radionuclides could be carried off-site by the water.



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## 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 and/or EPA so that the site meets any applicable requirements.

In case of damage to equipment, Bridgeton Landfill personnel will follow applicable 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 will be replaced or cleaned and fit for its intended use before operations are resumed. Contaminated materials and personnel protective equipment will be properly characterized and managed.

Because there are no ongoing operations associated with West Lake Landfill OU-1 Areas 1 and 2, resumption of service provisions are not applicable to West Lake Landfill. In the event that an incident occurs during the conduct of site investigation, monitoring, or removal action activities, provisions related to possible suspension and subsequent resumption of such activities are addressed in the Task-Specific HASPs.

In the event an incident that poses a potential for release of hazardous substances from OU-1 occurs, a plan will be prepared after the incident response is complete to evaluate whether hazardous substances were released and if so the nature and extent of such a release. The plan will be provided to EPA for review and will be implemented upon receipt of EPA approval.



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## 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;
- As deemed appropriate by site personnel or the emergency coordinator;
- Upon request/input of regulatory authorities;
- The list of emergency coordinators changes; and/or
- The list of emergency equipment changes.

In addition, Bridgeton Landfill holds quarterly meetings with the various First Responders designated by Local Authorities to discuss site activities and incident response procedures. Representatives of OU-1 attend these meetings periodically or as requested by Bridgeton Landfill or the Local Authorities.



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TABLES

# BRIDGETON LANDFILL

Incident Management Plan

## TABLE 1

| RESPONSIBILITIES AND CONTACTS (updated March 21, 2016) | |
|---|---|
| **Primary Emergency Contact – Dial 911** | |
| ***Bridgeton Landfill Site Personnel*** – *13570 St. Charles Rock Road, Bridgeton, MO 63044* | |
| Facility Emergency Coordinator | Derek Bouchard<br>Office: (314) 744-8172<br>Cell: (314) 302-3634 |
| Alternate Emergency Facility Coordinator | Brian Power<br>Office: (314) 744-8165<br>Cell: (618) 410-0157 |
| Alternate Emergency Facility Coordinator | Tim Johnson<br>Office: (314) 744-8190<br>Cell: (818) 434-8494 |
| ***West Lake Landfill Operable Unit-1 Personnel*** | |
| Radiation Safety Technician | Alex Luna<br>Cell: (505) 463-2895 |
| OU-1 Field Coordinator | Bill Abernaty<br>Cell: (314) 502-1299 |
| OU-1 Project Coordinator | Paul Rosasco<br>Office: (303) 940-3426 ext. 5<br>Cell: (303) 808-7227 |
| OU-1 Project Coordinator – alternate point of contract | Robert Jelinek<br>Office: (303) 940-3426 ext. 8<br>Cell: (303) 807-9601 |
| ***Regulatory Authorities*** | |
| MDNR–Solid Waste Management Program-- Operations | Brenda Ardrey<br>Office: (573) 526-9940<br>Cell: (573) 353-3543 |
| MDNR–Solid Waste Management Program-- Director | Chris Nagel<br>Office: (573) 751-5401<br>Blackberry: (573) 680-5146<br>Cell: (573) 690-5371 |
| MDNR–Environmental Emergency Response (Spill Line) | Hot Line: (573) 634-2436 |
| MDNR–Environmental Emergency Response –<br>St. Louis Region -- Route 66 | Skip Rickets<br>Cell: (314) 608-5656 |
| St. Louis County Department of Health | Laura Yates<br>Office: (314) 615-4035<br>Cell: (314) 609-2576 |
| EPA Region 7 – Regional Project Manager | Bradley Vann<br>Office: (913) 551-7611<br>Cell: (816) 714-0331 |

# BRIDGETON LANDFILL

Incident Management Plan

| | |
|---|---|
| EPA Region 7 – On-Scene Coordinator | Tom Mahler<br>Cell: (816) 604-0546 |
| ***Local Authorities*** | |
| Robertson Fire Dept. | Maynard Howell – Asst. Fire Chief<br>Cell: (314) 575-5011 |
| Pattonville Fire Dept. | Battalion Chief (Primary Contact) Cell:<br>(314) 393-4802<br>Matt Lavanchy (Secondary Contact) Cell:<br>(314) 393-4807<br>Office: (314) 739-3118 |
| St. Louis County Local Emergency Planning Committee (LEPC) | Mark Diedrich – LEPC Coordinator<br>Office: (314) 615-9500<br>Bureau of Communications<br>24/7 Emergency: (314) 615-5360 |
| ***Other Contacts*** | |
| SSM DePaul Health Center | (314) 344-6000 |
| St. Joseph Health Center | (636) 947-5000 |
| National Response Center | (800) 424-8802 |
| EPA Region VII | (913) 236-3778 |

# BRIDGETON LANDFILL

Incident Management Plan

## TABLE 2

| LIST OF AVAILABLE ON-SITE RESOURCES | |
|---|---|
| ***Resource*** | ***Quantity*** |
| On-Site Head Count in Office | |
| Fire Hydrants | 5 (see Figure 2) |
| Soil Stock Pile | 10,000 cubic yards (see Figure 2) |
| Bulldozer | 1 |
| Front-End Loader | 1 |
| Water Truck (3500 gallon with cannon) | 1 |
| Water Truck (2000 gallon pump truck) | 1 |
| Water Truck Adaptor to 5" Storz Fitting | 1 |
| Excavators | 4 |
| Spill Cleanup Kits* | 2 |
| Eye Wash Station* | 2 |
| Portable Fire Extinguishers* | 16 |
| Steel Gate for Culverts | 2 |
| Vacuum Trucks | 2 |
| ATVs (2-man with tool bed) | 5 |
| ATV (4-man with tool bed) | 1 |
| Aluminized Approach Suits | 2 |
| PVC flame resistant hot liquid suits | ~30 |
| Multi RAE Lite VOC Meter | 1 |
| UltraRAE Benzene specific PID Meter | 1 |
| RKIGX-2009 4 Gas Meters | 8 |
| Five-gallon Containers Class A, SFFF Structural Fire Foam** | 40 |
| Tyvek suits, boot covers and gloves | 100+ *** |
| Ludlum Model 12 with a 44-9 Probe | 1 |
| Ludlum Model 2360 with a 43-93 Probe | |
| Ludlum Model 2929 with a 43-10-1 Probe | 1 |
| RAE MultiRAE Lite Five gas Monitor with PID | 1 |

*At all facility vehicles, each flare yard, leachate loadout and MBI maintenance building

** At Emergency Meeting and Coordination Area, Entrance 1

***At the OU-1 Area 1 and 2 Trailers

FIGURES

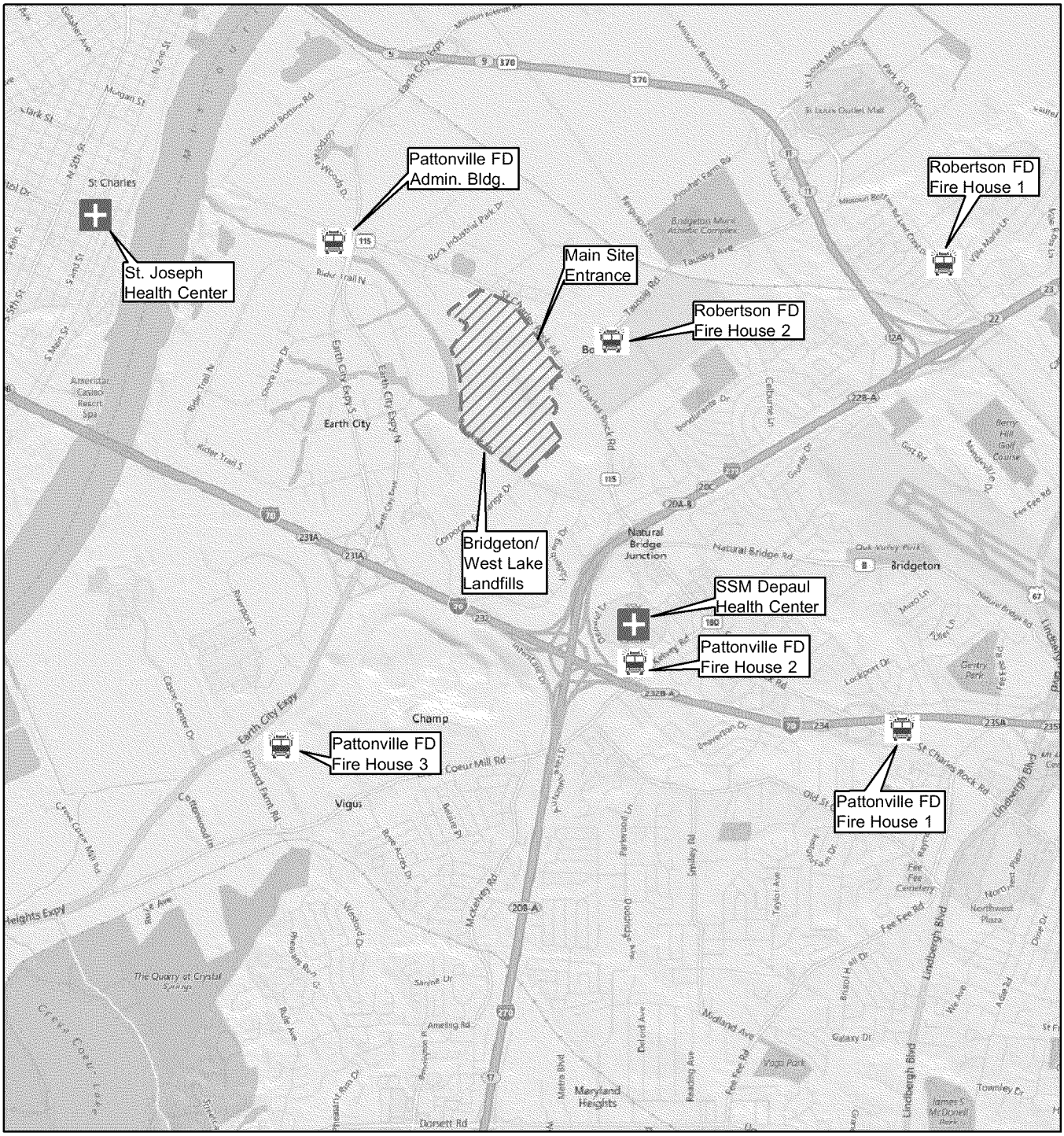


Image: © 2010 NAVTEQ © Microsoft Corporation bing

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SCALE IN FEET

Figure 1

Facility Location

Bridgeton/West Lake Landfill
Incident Management Plan (IMP)

EMSI Engineering Management Support, Inc.

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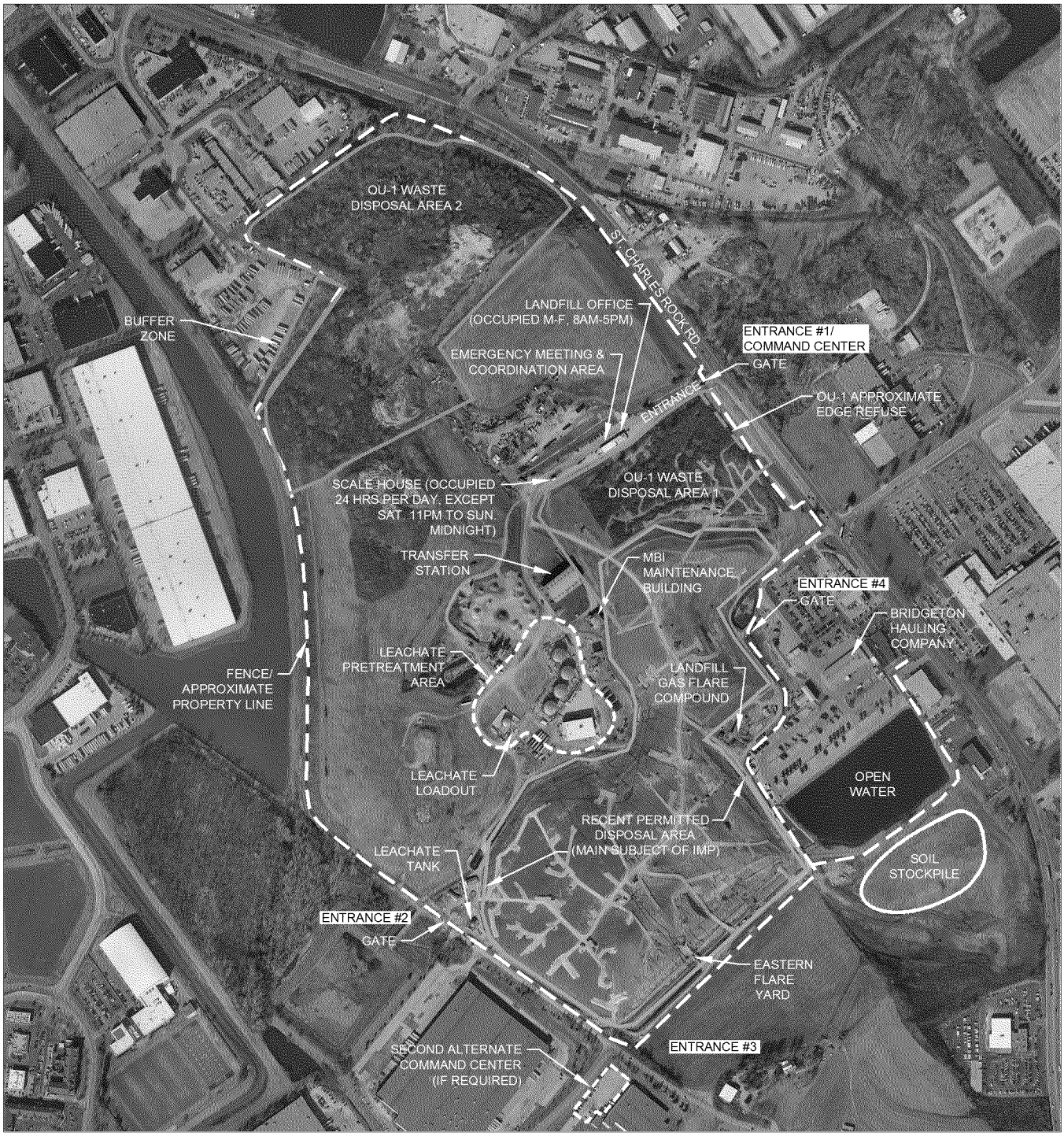


## NOTE

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

AERIAL PROVIDED BY COOPER AERIAL SURVEYS COMPANY (MARCH 20, 2014)

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Figure 2

# Facility Map

Bridgeton Landfill/West Lake Landfill
Incident Management Plan (IMP)

EMSI Engineering Management Support, Inc.

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## LEGEND

BULK STORAGE CONTAINERS (ALL OUTDOORS)

1 – ABOVEGROUND DIESEL FUEL STORAGE TANK – 500 GAL
2 – ABOVEGROUND DIESEL FUEL STORAGE TANK – 500 GAL
3 – ABOVEGROUND DIESEL FUEL STORAGE TANK – 500 GAL
4 – ABOVEGROUND DIESEL FUEL STORAGE TANK – 500 GAL
5 – ABOVEGROUND DIESEL FUEL STORAGE TANK – 500 GAL
6 – ABOVEGROUND GASOLINE FUEL STORAGE TANK – 30 GAL
7 – PROPANE STORAGE TANK – 100 LB
8 – PROPANE STORAGE TANK – 100 LB
9 – PROPANE STORAGE TANK – 100 LB
10 – PROPANE STORAGE TANK – 100 LB
11 – PROPANE STORAGE TANK – 100 LB
12 – PROPANE STORAGE TANK – 100 LB
13 – PROPANE STORAGE TANK – 100 LB

## "QUADRANT" DESIGNATIONS

A = SOUTH QUARRY – NE QUADRANT
B = SOUTH QUARRY – SE QUADRANT
C = SOUTH QUARRY – SW QUADRANT
D = SOUTH QUARRY – NW QUADRANT
E = NORTH QUARRY AREA

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.

– EXISTING YARD HYDRANT AND FIRE HYDRANT
– NATURAL GAS LINE
– ABOVEGROUND ELECTRIC LINE
– FENCE LINE
– POWER SUPPLY PANEL
– ON-SITE ALL-WEATHER ROADS AND STAGING AREAS ACCESSIBLE BY PUBLIC EMERGENCY RESPONSE
– ON-SITE ALL-WEATHER ROADS ACCESSIBLE BY BRIDGETON LANDFILL EQUIPMENT

Figure 3

Fire Hydrant Locations

Bridgeton Landfill/West Lake Landfill
Incident Management Plan (IMP)

EMSI Engineering Management Support, Inc.

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## "QUADRANT" DESIGNATIONS

- (A) = SOUTH QUARRY – NE QUADRANT
- (B) = SOUTH QUARRY – SE QUADRANT
- (C) = SOUTH QUARRY – SW QUADRANT
- (D) = SOUTH QUARRY – NW QUADRANT
- (E) = NORTH QUARRY AREA

## LEGEND

- – EXISTING YARD HYDRANT AND FIRE HYDRANT
- – ON-SITE ALL-WEATHER ROADS AND STAGING AREAS ACCESSIBLE BY PUBLIC EMERGENCY RESPONSE
- – ON-SITE ALL-WEATHER ROADS ACCESSIBLE BY BRIDGETON LANDFILL EQUIPMENT

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.

Figure 3A

Emergency Locator Map

Bridgeton Landfill/West Lake Landfill
Incident Management Plan (IMP)

EMSI Engineering Management Support, Inc.

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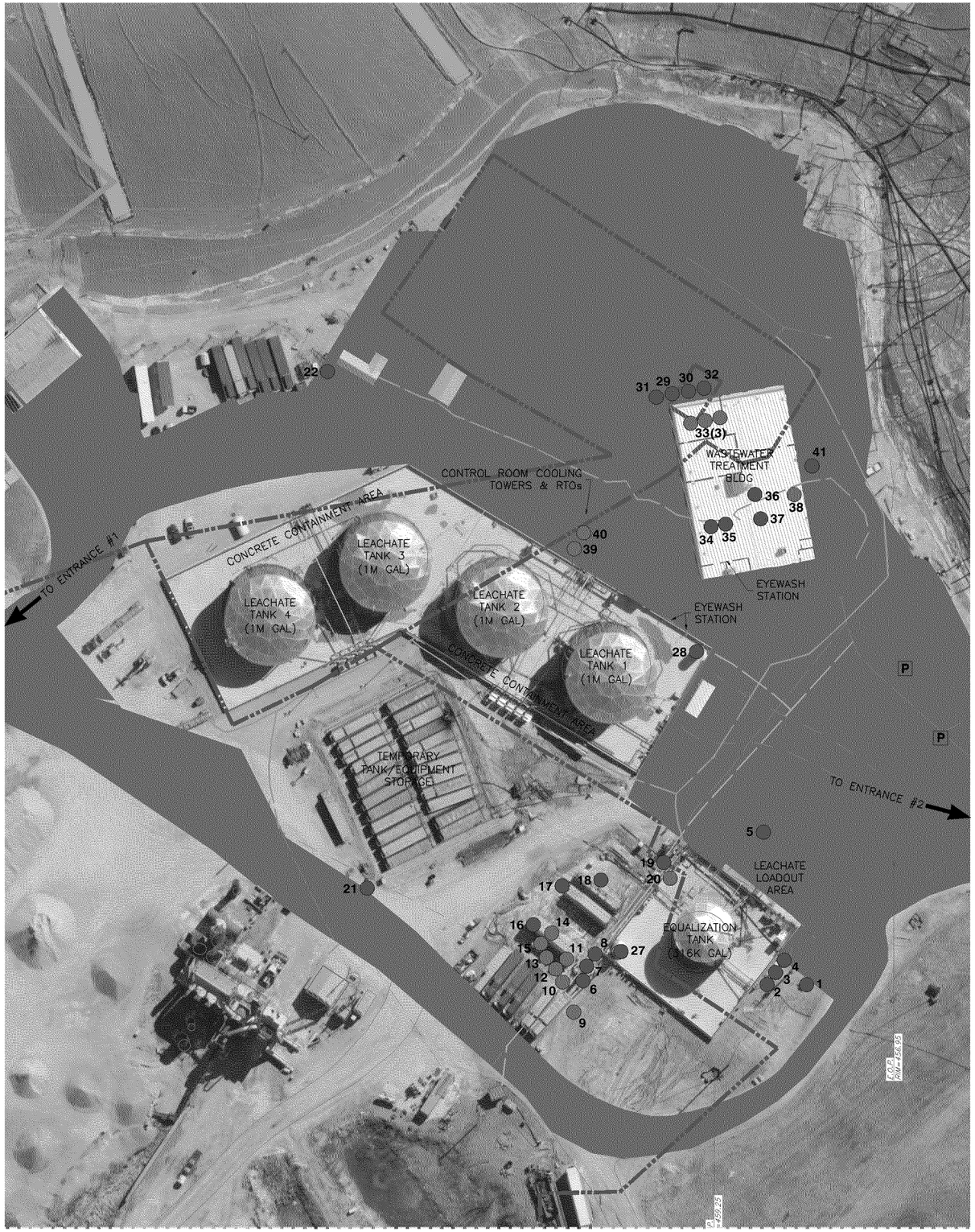
# LEACHATE TREATMENT AREA




## LEGEND

### BULK STORAGE CONTAINERS

1 – HYDRITE 3120 SUPPRESSOR – 330 GAL
2 – HYDRITE 3120 SUPPRESSOR – 330 GAL
3 – HYDRITE 3120 SUPPRESSOR – 330 GAL
4 – HYDRITE 3120 SUPPRESSOR – 330 GAL
5 – HYDRITE 3120 SUPPRESSOR – 330 GAL
6 – SODIUM HYPOCHLORITE – 330 GAL
7 – SODIUM HYPOCHLORITE – 330 GAL
8 – SODIUM HYPOCHLORITE – 330 GAL
9 – COAGULANT – 55 GAL
10 – COAGULANT – 55 GAL
11 – COAGULANT – 55 GAL
12 – HYDROGEN PEROXIDE 32% – 55 GAL
13 – POLYMER – 55 GAL
14 – PHOSPHORIC ACID 75% – 55 GAL
15 – HYDROGEN PEROXIDE 32% – 55 GAL
16 – SODIUM HYPOCHLORITE – 330 GAL
17 – GOC TECHNOLOGIES 0900 ODOR COUNTERACTANT – 330 GAL
18 – FERRIC CHLORIDE – 330 GAL
19 – GOC TECHNOLOGIES 0900 ODOR COUNTERACTANT – 330 GAL
20 – PHOSPHORIC ACID 75% – 55 GAL
21 – GOC TECHNOLOGIES 0900 ODOR COUNTERACTANT – 500 GAL
22 – SODIUM HYDROXIDE (CAUSTIC) – 330 GAL
27 – SODIUM HYDROXIDE (CAUSTIC) – 6,000 GAL
28 – SODIUM HYDROXIDE (CAUSTIC) – 6,000 GAL
29 – SODIUM HYDROXIDE (CAUSTIC) – 6,000 GAL
30 – SULFURIC ACID (ACID) – 6,000 GAL
31 – MAGNESIUM HYDROXIDE (CAUSTIC) – 6,000 GAL
32 – ALUMINUM CHLORIDE HYDROXIDE – 6,000 GAL
33 – UF MEMBRANE CLEANER – 55 GAL
34 – COAGULANT (POLYMER) – 330 GAL
35 – COAGULANT (POLYMER) – 330 GAL
36 – ANTIFOAM – 330 GAL
37 – PHOSPHORIC ACID – 330 GAL
38 – SALT (NaCl) – 55 GAL (OR 50 LB BAGS)
39 – BIOCIDE (BROMINE & SODIUM HYPOCHLORITE/HYDROXIDE) – 55 GAL
40 – CORROSION/SCALE INHIBITOR – 55 GAL
41 – SODA ASH SILO – 60,000 LBS

### GENERAL LEGEND

– ON-SITE ALL-WEATHER ROADS AND STAGING AREAS ACCESSIBLE BY PUBLIC EMERGENCY RESPONSE
– ON-SITE ALL-WEATHER ROADS ACCESSIBLE BY BRIDGETON LANDFILL EQUIPMENT
– NATURAL GAS LINE
– ELECTRIC LINE
P – POWER SUPPLY PANEL
15 – 55 GALLON CONTAINER
16 – BULK CONTAINER (>55 GAL)

### 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).

## KEY

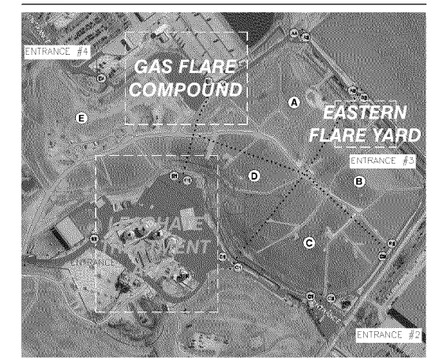



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Figure 4A

Chemical Storage Areas

Bridgeton Landfill/West Lake Landfill
Incident Management Plan (IMP)

EMSI Engineering Management Support, Inc.

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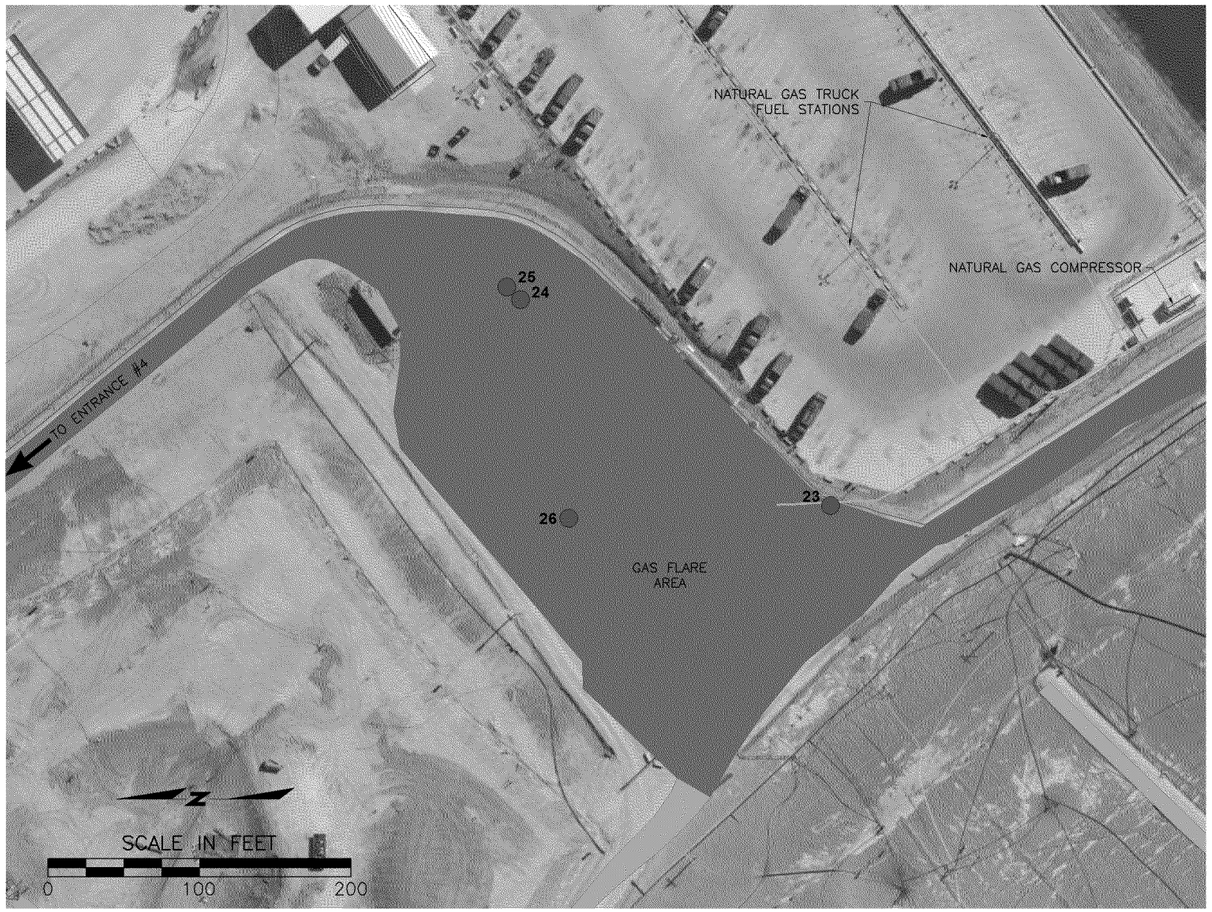
## GAS FLARE COMPOUND

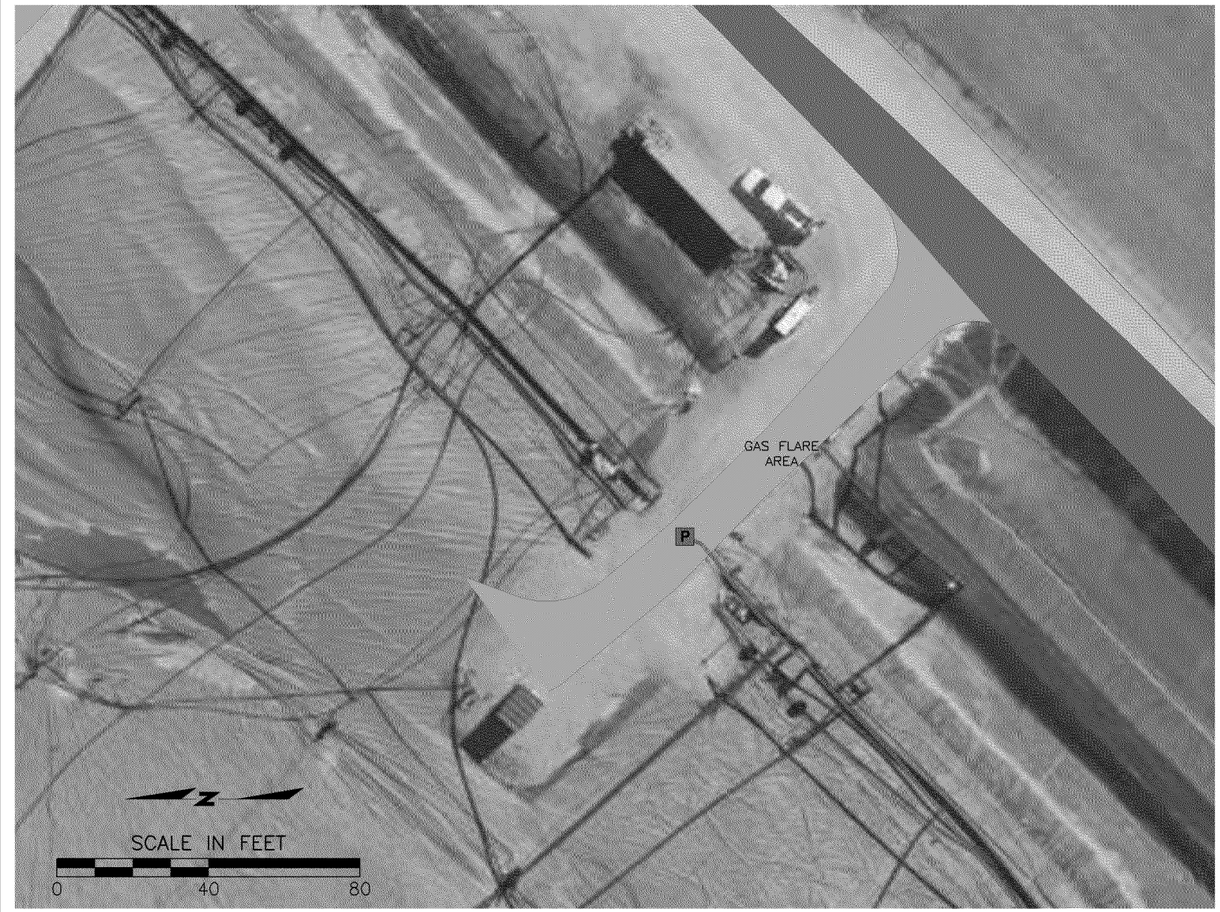



## LEGEND

BULK STORAGE CONTAINERS

- 23 – GOC TECHNOLOGIES 0900 ODOR COUNTERACTANT – 500 GAL
- 24 – GOC TECHNOLOGIES 0900 ODOR COUNTERACTANT – 330 GAL
- 25 – GOC TECHNOLOGIES 0900 ODOR COUNTERACTANT – 330 GAL
- 26 – HYDRITE 3120 SUPPRESSOR – 330 GAL

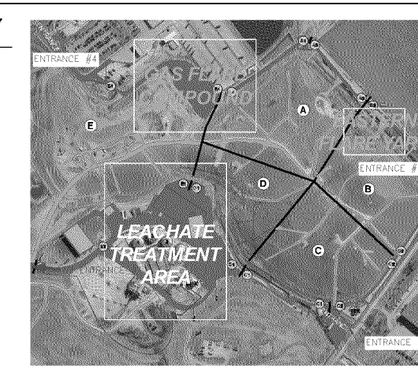
## EASTERN FLARE YARD




## LEGEND

NO BULK STORAGE CONTAINERS

## KEY




## GENERAL LEGEND

- ON-SITE ALL-WEATHER ROADS AND STAGING AREAS ACCESSIBLE BY PUBLIC EMERGENCY RESPONSE
- ON-SITE ALL-WEATHER ROADS ACCESSIBLE BY BRIDGETON LANDFILL EQUIPMENT
- NATURAL GAS LINE
- ELECTRIC LINE
- P – POWER SUPPLY PANEL
- 15 – 55 GALLON CONTAINER
- 16 – BULK CONTAINER (>55 GAL)

## 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. BOTH GAS FLARE AREAS DEPICTED ABOVE DO CONTAIN 100 LB PROPANE FUEL TANKS (SEE FIGURE 3 FOR MORE DETAILS.

Figure 4B

Chemical Storage Areas

Bridgeton Landfill/West Lake Landfill
Incident Management Plan (IMP)

EMSI Engineering Management Support, Inc.

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ATTACHMENT A

FACILITY EMERGENCY COORDINATOR CHECKLIST / EMERGENCY RESPONDER COMMUNICATION

# BRIDGETON LANDFILL

Incident Management Plan

## 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 i n 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 devi ces and practices in place to prevent spills of leachate.

Table 1 Spill Prevention Devices and Practices

| Spill Prevention Devices and Practices | 96K Tank | 316K and 1M Tanks | Frac Tanks | Pumps and Lift Stations | Leachate Piping | Truck Load Out Station |
|---|---|---|---|---|---|---|
| SCADA level sensor | * | * | | * | NA | NA |
| Minimum freeboard | * | * | * | | NA | NA |
| High level alarm light | * | * | | * | NA | NA |
| Overfill prevention feed shutoffs | | | | * | | |
| Bypass valves | * | | | * | | |
| Secondary tank containment | * | * | *[1] | * | NA | * |
| Dual containment piping | * | * | * | * | * | * |
| Pumps turned off during maintenance | * | * | * | * | * | * |
| Dry disconnect couplings | NA | NA | * | NA | NA | |
| Drip pans | NA | NA | * | NA | * | NA |
| Vac Truck available to clean containment | * | * | * | * | * | * |
| Daily inspection | * | * | * | * | * | *[2] |

[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" feet 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 be driver in 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 fai lure 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 li ne 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 an 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)**