



Countywide Recycling & Disposal Facility

Division of Republic Waste Services of Ohio
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Ohio Environmental Protection Agency, Central Office
Division of Solid and Infectious Waste Management
Attn: Mr. Ed Gortner
P.O. Box 1049
Columbus, Ohio 43216-1049

December 6, 2007

RE: SUBMITTAL OF ISOLATION BREAK EXCAVATION HEALTH AND SAFETY PLAN

Dear Mr. Gortner:

Enclosed please find a copy of the above referenced plan for your review and approval. This plan is to be considered an addendum to the Isolation Break Excavation Plan which was submitted on October 26, 2007.

If you have any questions, please do not hesitate to contact me at (330) 874-3855.

Sincerely,

Tim Vandersall P.E.
General Manager

cc/ec: Bill Skowronski, OEPA-NEDO
Kirk Norris, SCHD
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**Isolation Break Excavation Health &
Safety Plan**

**Countywide Recycling and Disposal
Facility**



Prepared for:

Republic Services of Ohio II, LLC

3619 Gracemont Street, S.W.
East Sparta, OH 44626
(330) 874-3855

Submitted by:

Science Applications International Corporation
8866 Commons Blvd
Twinsburg, OH 44087
(330) 405-9810

December 6, 2007

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COUNTYWIDE RECYCLING AND DISPOSAL FACILITY**

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1 INTRODUCTION

This Site-Specific Safety and Health Plan (SSHP) sets forth the minimum health and safety procedures to be followed during the Isolation Break Excavation at Countywide Recycling and Disposal Facility (Countywide) in Stark County, Ohio. This SSHP establishes the basic procedures required to protect personnel involved in the construction phase of this project.

Nothing in this SSHP relieves any Contractor or Subcontractor of responsibility to provide a safe workplace. Contractors shall ensure their personnel and subcontractors comply with the provisions set forth in this and any additional plans. Site personnel and all contractors are required to review this and any additional plans and acknowledge review prior to on-site project participation. This SSHP shall be distributed prior to initiation of activities at the site.

This SSHP is included as an addendum to the Isolation Break Excavation Plan. Information contained in the Isolation Break Excavation Plan is incorporated by reference in this SSHP (e.g., site maps and detailed site information). Both the Isolation Break Excavation Plan and this SSHP must be on-site during field work and accessible to employees and contractors.

This SSHP addresses known significant site hazards and establishes the minimum requirements for safe project execution. The Isolation Break Construction Manager and SHSO shall be responsible for enforcing compliance with this plan and relevant Countywide procedures. All Occupational Safety and Health Administration (OSHA), United States Environmental Protection Agency (USEPA), Ohio Environmental Protection Agency (Ohio EPA), and other applicable regulations shall be strictly adhered to. In addition, the SHSO, through the Isolation Break Construction Manager shall coordinate all on-site activities with Countywide personnel to ensure construction activities are conducted safely with current on-site activities.

If site hazards or required controls are significantly different from those discussed in this plan, the plan shall be modified by a Field Change Order (FCO) or similar document. Downgrades in protective measures must be reviewed and approved in advance by the SHSO. Upgrades to protective measures shall be made as needed with subsequent notification of the SHSO.

2 SITE AND PROJECT BACKGROUND

Countywide is a fully lined Subtitle D solid waste landfill located in Stark County, Ohio. Countywide is owned and operated by Republic Services of Ohio II, LLC (Republic). Countywide is permitted and licensed to accept solid waste as defined in the Ohio Revised Code and has been in operation since 1991. Countywide was owned and operated by another solid waste company until February 1999, when it was purchased by Republic. The facility was designed and constructed with state-of-the-art engineered systems to protect the environment, including composite liner system, leachate collection system, and landfill gas collection and control system (GCCS).

Countywide estimates that it accepted approximately 600,000 tons of non-hazardous aluminum process waste between 1993 and 2006. The majority of this aluminum process waste was described as “dross” or “salt cake”, which are by-products of the melting of aluminum with a salt flux. A small portion of the aluminum process waste was baghouse dust and shredder/delaq fines.

Site records indicate that the acceptance of all dross or salt cake type wastes stopped prior to the disposal of waste in Cell 7; therefore, Countywide does not anticipate encountering any dross or salt cake type

aluminum waste during the excavation. However, small quantities of fabric bags of waste consisting of baghouse dust collected from the furnace exhaust stacks or shredder/delaq fines collected from the process that shreds recycled aluminum beverage cans and removes the lacquer coating from the inside of the cans are potentially present in the area. Both of these materials were delivered to the site in “super sacks”. Super sacks are large square fabric bags that can contain from 2,000 to 3,000 lbs of material.

PROJECT BACKGROUND

This project involves the relocation of approximately 385,000 cubic yards of waste material. The Isolation Break Excavation Plan provides a work plan for the excavation of in-place waste material, down to an existing cell separation berm situated between Cells 5B/5C and Cell 7, to provide an Isolation Break which will eliminate the potential for the migration of the reaction from the initial 88-acre area into the adjacent cells at the facility. A more detailed description of the construction activities to be performed is provided in the Isolation Break Excavation Work Plan.

3 PROJECT HEALTH AND SAFETY RESPONSIBILITIES

KEY PROJECT PERSONNEL

Position	Name	Phone
F&O Project Manager	Mike Beaudoin	(734) 634-9539
Isolation Break Construction Manager	Daniel Fleshour	(513) 782-4558
Isolation Break Site Health and Safety Officer	Martha Clough	(216) 287-0450
Prime Contractor Superintendent	Rusty Hannahs	(330) 353-3935

ISOLATION BREAK CONSTRUCTION MANAGER

The Isolation Break Construction Manager is responsible for overseeing the execution of the project. At a minimum the Construction Superintendent shall have three years experience in similar work and OSHA Excavation Competent Person training.

ISOLATION BREAK SITE HEALTH AND SAFETY OFFICER

The Isolation Break Site Health and Safety Officer (SHSO) is responsible for making health and safety decisions for specific health and safety activities and for verifying the effectiveness of the health and safety program. The SHSO or their designee has primary responsibility for the following:

- Implementing and verifying compliance with this SSHP and reporting to the Isolation Break Construction Manager and F&O Project Manager any deviations from anticipated conditions.
- Conducting and documenting daily safety inspections or ensuring completion.
- Documenting deficiencies identified in the daily inspections and responsible parties, procedures, and timetables for correction.
- Stopping work or upgrading protective measures (including protective clothing) if uncontrolled health and safety hazards are encountered. Indications of uncontrolled health and safety hazards include monitoring instrument readings in excess of the established action limits, etc. The SHSO must also authorize resumption of work following correction of the adverse condition(s).
- Ensuring that site personnel have access to this plan and are aware of its provisions.

- Conducting a site-specific pre-entry health and safety briefing covering potential chemical and physical hazards, safe work practices, and emergency procedures.
- Maintaining on-site auditable documentation of Material Safety Data Sheets (MSDSs) for applicable materials utilized at the site, training for site workers and visitors, calibration/maintenance of field instruments, environmental and personal exposure monitoring results, notification of accidents/incidents, reports of any chemical overexposure or excessive levels, and notification to employees of chemical exposure data.
- Confirming that all on-site personnel have received the training listed in the Training Requirements section (Section 8) of this SSHP.
- Ensuring that all monitoring equipment is operating according to the manufacturer's specifications and performing field checks of instrument calibration.
- Ensuring monitoring for potential on-site exposures is conducted in accordance with this SSHP.
- Updating the project SSHP (field changes) to ensure that it adequately identifies all tasks and significant hazards at the site and notifying project personnel and the Isolation Break Construction Manager of changes.
- Investigating accidents and near accidents and reporting to the F&O Project Manager, Isolation Break Construction Manager, and Countywide personnel.
- Conducting or ensuring routine "tailgate" safety briefings.
- Controlling visitor access to the exclusion zone.

PRIME CONTRACTOR SUPERINTENDENT

The Prime Contractor Superintendent shall oversee the construction activities associated with the project and shall be responsible for site accessibility and safety. He/she also shall be responsible for enforcing the field requirements of this SSHP. At a minimum the Prime Contractor Superintendent shall have three years experience in similar work and OSHA Excavation Competent Person training. The Prime Contractor Superintendent will have responsibility for the following:

- Conducting and documenting daily safety inspections if the SSHO is not onsite;
- Conducting or routine "tailgate" safety briefings if the SSHO is not onsite.
- Controlling visitor access to the exclusion zone in conjunction with the SSHO and Isolation Break Construction Manager.

SITE PERSONNEL

All site personnel assigned to the Isolation Break Project are responsible for complying with the provisions set forth in the SSHP and work in a safe manner. Each employee's greatest safety tool is their ability to stop work. Each employee is empowered and expected to stop his or her own work or the work of co-workers if any person's safety or the environment are at risk.

4 EXCLUSION ZONE

The exclusion zone for this project includes those areas within the limits of excavation within the isolation break project limits where waste is exposed and where the excavated waste surface has received daily cover or alternate daily cover (ADC). Disposal areas, areas of the excavation where intermediate or transitional cover has been applied to the waste, material storage areas, stockpile areas, equipment staging areas, and other areas outside the limits of waste excavation are not considered part of the exclusion zone.

5 HAZARDS

Site tasks present a variety of potential physical hazards, with heavy equipment operations within site conditions offering the greatest potential for significant injury. Potential physical hazards include being struck by moving/mobile equipment, fire, explosion, inclement weather, reduced visibility, slips and trips, heavy lifting/moving. It is not anticipated that sufficient quantities of landfill gas, above that which can be diluted below the lower explosive limit by normal air movement, will accumulate except near the surface of exposed waste. Appropriate monitoring will be performed to protect the equipment operators from both flammable and toxic gasses. The appropriate plans and materials will be on hand to deal with landfill gas and/or surficial waste fires. Plans have been prepared to deal with unlikely or unanticipated risks and are described in the Isolation Break Excavation Plan.

Data collected from the 88-acre area indicate that the reaction has not moved to or beyond the limits of this proposed excavation. Ongoing visual inspection of the operation will be conducted to confirm that the reaction has not progressed north of the excavation and that the excavation can be completed safely.

The stability of the landfill slopes resulting from the proposed Isolation Break waste relocation has been evaluated. The evaluation, presented in the Isolation Break Excavation Plan, included analysis of the impact of elevated pore pressures and an analysis of the potential reduction in waste shear strength on the stability of the north face of Cell 4 and 5 formed as a result of the Isolation Break excavation. The stability analysis demonstrates that the proposed slope configuration with the drainage provided will remain stable even under the development of adverse conditions. The safety factors for both the southern and northern slopes are 1.5.

Appendix A contains the Job Safety Analysis (JSA) for the work to be performed during site activities.

POTENTIAL EXPOSURES

Landfill gas in the excavation area may contain methane, carbon monoxide, hydrogen, carbon dioxide, ammonia, organic compounds, and hydrogen sulfide. National Institute of Occupational Safety and Health (NIOSH) Safety Cards will be maintained onsite for potential chemical hazards which are known to be present and which are likely to be encountered on the site. Other potential hazards are discussed in the Countywide Health and Safety Plan Documents.

FIRE AND EXPLOSION HAZARDS

There is a possibility that landfill gas fires could be ignited as a result of a spark generated by contact between the excavation equipment and metal or rock in the waste. However, landfill gas at flammable concentrations is only anticipated near the waste surface, as it will dilute rather quickly in open air. If landfill gas is ignited, a continuously burning or sustaining fire is not anticipated. This is because the landfill gas will not diffuse from the waste at a rate sufficient to sustain a continuously burning. If monitoring detects explosive levels of landfill gas 18 inches to 2 feet above the waste surface, work will be halted until the gas dissipates and/or fans are applied to the work area to ensure the gas dissipates before reaching explosive concentrations.

A landfill gas fire may ignite paper or other combustible material within the solid waste. If this situation occurs, the waste fire will be extinguished according to the site's Incident Emergency Response Plan. The Isolation Break Construction Manager and SHSO should be immediately notified of a fire. The Isolation

Break Construction Manager will determine the proper approach to dealing with the fire in accordance with the site's Incident Emergency Response Plan and authorize action accordingly.

Standby equipment and materials will be available for use in managing small fires that could occur as a result of ignition of the solid waste from a landfill gas flash. Generally, small fires should be extinguished by smothering with soil from the stockpile maintained in close proximity to the excavation area. A dozer, loader, or backhoe can be used to retrieve the soil from the stockpile and deposited in the area of the fire to eliminate the source of oxygen that is needed to sustain the fire. Water will also be available from standby equipment, but should only be used if smothering with soil does not successfully extinguish the fire. If initial attempts to extinguish the fire in accordance with the procedure outlined in the Incident Emergency Response Plan, the Isolation Break Construction Manager or SHSO will contact local emergency fire fighting units for assistance.

Potential Fire or Explosion Hazards from Common Landfill Gas Components	
Component	Potential to Pose a Fire or Explosion Hazard
Methane	Methane is highly explosive when mixed with air at a volume between its LEL of 5% and its UEL of 15%. At concentrations below 5% and above 15%, methane is not explosive.
Hydrogen	Hydrogen is highly explosive when mixed with air at a concentration between its LEL of 4 percent and UEL of 74.5 percent. At this landfill, hydrogen is produced at greater than typical quantities by a hydrolysis reaction between aluminum waste and water within the landfill.
Carbon Monoxide	Carbon monoxide is explosive when mixed with air at a concentration between its LEL of 12.5 percent and UEL of 57 percent. At this landfill, carbon monoxide is produced at greater than typical quantities by a pyrolytic reaction as the organic material in the solid waste is heated by the reaction between aluminum waste and water within the landfill.
Carbon dioxide	Carbon dioxide is not flammable or explosive.
Nitrogen	Nitrogen is not flammable or explosive.
Oxygen	Oxygen is not flammable, but is necessary to support combustion.
Ammonia	Ammonia is flammable. Its LEL is 15% and its UEL is 28%. However, ammonia is unlikely to collect at a concentration high enough to pose an explosion hazard.
NMOCs	Potential explosion hazards vary by chemical. For example, the LEL of benzene is 1.2% and its UEL is 7.8%. However, benzene and other NMOCs alone are unlikely to collect at concentrations high enough to pose explosion hazards.
Hydrogen sulfide	Hydrogen sulfide is flammable. Its LEL is 4% and its UEL is 44%. However, in most landfills, hydrogen sulfide is unlikely to collect at a concentration high enough to pose an explosion hazard.

Health Effects from Oxygen-deficient Environments	
Oxygen Concentration	Health Effects
21%	Normal ambient air oxygen concentration
17%	Deteriorated night vision (not noticeable until a normal oxygen concentration is restored), increased breathing volume, and accelerated heartbeat
14% to 16%	Increased breathing volume, accelerated heartbeat, very poor muscular coordination, rapid fatigue, and intermittent respiration
6% to 10%	Nausea, vomiting, inability to perform, and unconsciousness
Less than 6%	Breathing spasms, convulsive movements, and death in minutes

Source: OSHA n.d.b

6 AIR MONITORING

All Countywide employees and contractor employees will wear personal 4-gas meters while working in the exclusion areas including personnel in equipment cabs. The meters should be capable of monitoring oxygen and explosive gas levels, carbon monoxide, and hydrogen sulfide. Meters will be operated and calibrated in accordance with all manufacturers' specifications. Meters will be downloaded daily and data will be reviewed by the SHSO or their designee. In addition to the personal monitors, the Project Health and Safety Officer will maintain the following instruments.

- Explosive Gases Meter
- Carbon Monoxide Detector
- Hydrogen Sulfide Meter
- Ammonia Meter
- Photo Ionization Detector (PID).

Entry into any excavated area will not be permitted if any of the following concentrations are detected:

- methane gas levels are detected at 10 percent of the LEL methane gas or higher.
- hydrogen sulfide gas levels are detected at 10 ppm, hydrogen sulfide gas by volume or higher in worker breathing zone.
- oxygen levels are detected at 19.5 percent oxygen gas by volume or lower in worker breathing zone.
- carbon monoxide levels are detected at 25 ppm or higher in worker breathing zone.
- ammonia levels are detected at 25 ppm or higher in worker breathing zone.
- VOC concentrations are higher than 1 ppm (or >10 ppm if benzene is not present) in worker breathing zone.

Project personnel will monitor for explosive concentrations of landfill gas, hydrogen sulfide, and oxygen deficiencies prior to and during entry into the exclusion zone. All personnel must evacuate the excavated area if the above levels are detected in the breathing zone. Personnel may not reenter the excavated area until safe gas levels are attained by ventilation or other means.

In the event of an exceedance of the action levels established for the personal 4-gas meters worn by all personnel in the exclusion zone, the following procedures should be immediately executed:

- Personnel on-foot should leave the area immediately and report the incident to the Project Health and Safety Officer for more intense monitoring of the area.
- Personnel in vehicles should leave the area immediately in the vehicle. The Project Health and Safety Officer should be notified so that monitoring in the vehicle and at the location of the exceedance can be initiated to obtain clearance to return to the site and resume work.

Return to the area where an exceedance has occurred will not be permitted until such time as the cause for the exceedance has been identified, mitigated, and deemed safe by the Project Health and Safety Officer or the Site Health and Safety Manager.

Monitoring Requirements and Action Limits

Hazard or Measured Parameter	Area	Interval	Limit	Action	Tasks
Four-Gas Meter:					
LEL	Site Personnel	Continuously	>10% LEL	Evacuate the area immediately and notify the SHSO or designee	All tasks
Oxygen			<19.5% O ₂		
Carbon Monoxide			>25 ppm		
Hydrogen Sulfide			>10 ppm		
Airborne organics with 10.6 eV PID or equivalent	Breathing zone (14 inches in front of employee's shoulder).	At least once every 30 minutes during excavation activities; continuously during elevated readings.	PID ≤ 1 ppm PID ≥ 1 ppm 1 ≥ PID ≥ 10 ppm Benzene ≤ 1 ppm PID ≥ 10 ppm or Benzene and/or vinyl chloride ≥ 1 ppm	Continue work in level D and continue monitoring. Level D and initiate monitoring with hand pump/detector tubes for benzene. Continue in Level D and initiate continuous PID monitoring Withdraw and evaluate: -identify impacts -notify SHSO and Isolation Break Construction Manager -implement control measures, potentially including ventilation or Level C PPE.	Excavation activities
Oxygen concentration and flammability with combustible gas indicator	Prior to and during entry of excavation areas in worst case areas	At least once every 30 minutes during excavation activities; continuously during elevated readings.	<10% LEL >10% LEL <19.5% O ₂	Continue and evaluate source Withdraw and allow area to ventilate for a minimum of 30 minutes; notify SHSO and Isolation Break Construction Manager	Excavation activities
Ammonia	Breathing zone (2-3 feet from source or 14 inches in front of employee's shoulder).	At least once every 30 minutes during excavation activities; continuously during elevated readings.	<25 ppm >25 ppm	Level D Withdraw and evaluate: -identify impacts -notify SHSO and Isolation Break Construction Manager -implement control measures, potentially including ventilation or Level C PPE.	
Visual Dust	In or near work area	Continuously during activities with the potential for dust generation	Visual dust	Initiate dust control (e.g., wetting area, use of plastic, etc) and adjust operations to minimize dust generation.	All tasks
Temperature	In or near work area	At least twice daily to record approximate lowest and highest temperatures.	>70°F <40°F	Administrative controls (See Section 7.12).	All tasks.

7 PERSONAL PROTECTIVE EQUIPMENT

Level D protection will be required for all work in the exclusion zone. Level D protection consists of a hard hat, safety glasses, steel toed shoes with hard soles, earplugs if necessary, long sleeves, and safety vest. The Project Health and Safety Officer will determine if situations warrant additional or upgraded PPE.

No special decontamination procedures will be required for the project execution. General decontamination procedures outlined in the Site Health and Safety Plan will be followed.

8 TRAINING AND MEDICAL MONITORING

Personnel who participate in field activities associated with this project are subject to the training requirements presented below. Medical monitoring will be required if respiratory protection becomes necessary.

Training	Worker	Supervisors	Site Visitor
Countywide Visitor Safety Orientation	✓	✓	✓
Excavation Competent Person	×	✓	×
Site Specific Worker Training	✓	✓	×
Site Specific Hazard Communication Training	✓	✓	×
Safety Briefing (daily and whenever conditions or tasks change)	✓	✓	×
Site Visitor Training	×	×	✓
First Aid/CPR (Standard Red Cross or Equivalent)	≥1 worker	×	×

✓= required

×= not required

SITE WORKER TRAINING

Personnel on-site working on this project must have received the site-specific safety training. Signatures of those attending and the type of briefing must be entered in project documentation before site access will be granted. The site-specific training shall include the following site-specific information, as appropriate:

- Project details, scope, and objectives;
- Names of site health and safety personnel and alternates;
- Contents of the project SSHP;
- Relevant Countywide Procedures;
- Hazards and symptoms of landfill gas and aluminum dross reaction exposure;
- Required Monitoring;
- Exposure Limits and Action Levels;
- Hazards and symptoms of chemicals used on-site;
- Physical hazards in the workplace;
- Excavation Hazards;
- Fire and Explosion Hazards;
- Location and availability of written hazard communication program;
- Site and task personal protective equipment (PPE) (including purpose, donning, doffing, proper use);
- Safe work practices to minimize risks;
- Safe use of engineering controls and equipment;
- Site control measures;
- Reporting requirements for spills and emergencies;
- Doffing and decontamination procedures to prevent the spread of chemical contamination;
- Contingency plans (communications, phone numbers, emergency exits, assembly point, etc.) as detailed in the Incident Emergency Response Plan;
- Spill containment procedures (reporting, clean-up methods, etc.); and
- Emergency equipment locations and use (fire extinguishers, spill kits, etc.).

Information presented in the site specific training (i.e., training slides) will be maintained onsite for reference and use in tailgate meetings.

Safety briefings shall be held on a daily basis and when conditions or tasks change. These briefings shall be conducted by the Isolation Break Construction Manager and the SHSO and shall be attended by all site workers and supervisors. These briefings shall address site-specific safety issues and shall be used as an opportunity to refresh workers on specific procedures and to address new hazards and controls. All attendees shall be required to sign the daily safety briefing attendance list.

SITE VISITOR TRAINING

Site visitors shall receive a briefing specific to hazards and controls associated with their intended site duties by the SHSO or designee. All site visitors will report to the Isolation Break Construction field office once onsite and report to the Isolation Break Construction Manager. A site visitor shall be escorted by qualified personnel when in a controlled area to ensure the individual will not be exposed to hazards for which he/she has not received training. All site visitors shall be required to sign the daily visitor logbook.

9 EMERGENCY RESPONSE AND MEDICAL TREATMENT PROCEDURES

All Emergency Response will be in accordance with the Republic Incident Emergency Response Plan. The Prime Contractor Supervisor shall remain in charge of all personnel during emergency activities. The Prime Contractor Supervisor shall perform emergency notification of emergency medical services, fire department, F&O Project Manager, and Countywide Personnel. The Prime Contractor Supervisor shall also escort or assign an escort to off-site emergency responders. To minimize the potential for accidents and injuries, daily safety and health inspections shall be conducted by the Prime Contractor Supervisor or SHSO. After an emergency occurs, the Isolation Break Construction Manager, the Prime Contractor Supervisor, the SHSO, and the field team shall participate in a briefing to discuss the event, identify the causes, identify corrective measures, and evaluate the responses.

All personnel working on-site shall be trained in the requirements of this section. This shall include recognizing emergencies, reporting emergencies to the Prime Contractor Supervisor or SHSO, and responding to emergencies. Employees shall also be informed of any changes in potential emergencies or response plans. Emergency phone numbers and hospital map are included in Appendix B and shall be posted on-site or kept in project vehicles.

POTENTIAL EMERGENCIES

Credible potential emergencies for this project include fires, minor chemical spills, and personnel injury. Site personnel will coordinate any emergency with the Prime Contractor Supervisor. All emergencies shall be coordinated through 911 emergency assistance.

Fires

The potential exists for fires to occur during excavation activities. In addition, gasoline and diesel fuel will be present on-site. The Prime Contractor shall assure that at least 100 cubic yards of soil are stockpiled in two places (north and south of the excavation limits) and be reserved for immediate access

to heavy equipment for fire suppression. In the event of a fire, the provisions of the Incident Emergency Response Plan shall be employed. Site personnel will:

- Not put themselves at risk
- Immediate notification of fire through verbal communication, on-site radios, etc.
- For smaller fires, attempt to extinguish the fire using available on-site equipment (i.e., fire extinguishers, earth moving equipment, etc.)
- For larger fires, evacuate the scene
- Notify all employees, visitors, customers and/or contractors in the immediate area
- Notify the Countywide Health and Safety Manager (HSM), General Manager, Operations Manager and/or Area Engineer to the situation
- Call for the Fire Department at 911 if necessary
- Activate facility communication system to notify all site personnel of the emergency
- If the emergency is deemed to be significant, the HSM will contact Stark County EMA and/or Stark county LEPC.

If there is any doubt about the safety of extinguishing the fire, site personnel shall evacuate the area. The supervisor or knowledgeable employee shall provide the fire department with relevant information when they arrive.

Spills

Potential spills include releases of fuels, lubricants, and hydraulic fluids. In the event of a spill or leak, the employee making the discovery shall immediately notify the SHSO and/or the Prime Contractor Supervisor. The procedures as outlined in the Incident Emergency Response Plan shall be employed and include:

- Reporting any spill by calling the Countywide HSM. If possible, identifying the material and estimating the volume released.
- For small spills, attempting to contain and clean up the spill using the on-site spill kit.
- For larger spills, attempting to contain the spill, if possible or practical. If there are any questions with regard to safety, evacuate the area.
- Maintaining containment and cleanup supplies necessary for small spills.
- Completing an incident report as necessary.
- Refer to the SPCC Plan for additional requirements for any spill.

Medical Emergencies

Field crews will use a variety of equipment that could cause injuries. In the event of a medical emergency, the Prime Contractor Supervisor shall notify the emergency medical service immediately. At least one first aid/CPR-trained individual shall be on-site at all times and this individual shall provide first aid pending release of the injured person to emergency medical staff. Personnel with injuries that are not clearly trivial shall be transported by ambulance rather than project personnel.

EMERGENCY ALERTING

In addition to two way radios and cell phones, each team shall have a means for generating an audible alarm, which shall consist of a compressed gas horn or vehicle horn. These devices shall be used to signal to other project personnel in the event of accidents or emergencies. Short blasts (less than 1/2

second) of the horn shall be used to request assistance, while extended blasts (more than 2 seconds) shall signal an evacuation.

EVACUATION

The SHSO, Isolation Break Construction Manager, or Prime Contractor Supervisor shall designate the evacuation routes and an assembly area. All employees shall be familiar with the evacuation routes and assembly area. Refer to the Isolation Break Excavation Plan for site maps.

EMERGENCY EQUIPMENT

Several items of emergency equipment shall be maintained at the work site. Any incident that is not clearly controllable by personnel wearing standard site clothing plus protective gloves and using the listed equipment will require reevaluation by the SHSO or designee. If the SHSO does not feel that on-site personnel can safely control the emergency with the available equipment, the crew shall use alternate approaches such as allowing a small fire to burn out or evacuating the site. The required emergency equipment includes:

- 16-unit first aid kit indoors or in weatherproof container, inspected weekly;
- Compressed gas horns or vehicle horn;
- Fire extinguisher(s) (at least 20-B) 25 to 75 ft from outside flammables storage (or use) area;
- Basic spill kit suitable to handle small spills of decontamination fluids, hydraulic fluid, or fuels and containing sorbent pads, tubes, and nitrile or similar gloves; and
- Cell phone.

10 GENERAL CODE OF SAFE PRACTICES (ALL WORK AREAS, ALL EMPLOYEES).

The following rules apply to all site activities:

- Personnel will stay upwind and a safe distance away from hazards whenever possible.
- Daily safety (“tailgate”) briefings shall be conducted by the Prime Contractor Supervisor or the SHSO to inform personnel of new hazards, procedures, or any safety issues that develop during work activities.
- Project personnel and management personnel are responsible to suspend/stop work and require all personnel to evacuate the affected area if any of the following situations occur:
 - inadequate health and safety precautions on the part of any on-site personnel, and
 - potential significant environmental insult as a result of planned activities.
- Personnel shall perform only those tasks that they believe they can do safely.
- Personnel shall notify the SHSO of any medical conditions (e.g., allergy to bee stings, diabetes, pregnancy) that require special consideration.
- Personnel shall maintain proper workplace housekeeping to minimize the potential for trips and other accidents.
- Contact with potentially impacted substances shall be avoided. Site personnel in the exclusion zone shall avoid walking through puddles, pools, mud, kneeling on the ground, and placing equipment on the ground.
- Spills shall be prevented to the greatest extent possible. In the event that a spill occurs, the material shall be contained.

- Eating, drinking, smoking, chewing gum or tobacco, and other practices that increase the probability of hand-to-mouth transfer are prohibited in excavation areas.
- Workers shall wash their hands and faces upon leaving the work area and prior to eating or drinking.
- All injuries and accidents requiring more than first aid shall be reported to the Prime Contractor Supervisor and the SHSO.
- All on-site workers shall abide by a buddy system. Members of a buddy team shall maintain verbal or visual contact.

Refer to the Countywide Site Health and Safety Plan Documentation for:

- Other physical hazards associated with construction sites and landfill operations
- Noise hazards associated with construction sites and landfill operations
- Cold stress
- Working around heavy construction equipment
- Personal hygiene.

11 LOGS, REPORTS, AND RECORDKEEPING

The following logs, reports, and records will be developed and maintained for this site by the Project Health and Safety Officer.

- Daily safety meeting topics,
- Daily safety inspections,
- Site Specific Health and Safety Plan documentation,
- Project Health and Safety Plan documentation,
- Incident Emergency Response Plan Program records,
- Air monitoring records,
- First aid administered,
- Health and safety equipment maintenance records, and
- Records of visits of all outside personnel.

APPENDIX A

JOB SAFETY ANALYSIS

JOB SAFETY ANALYSIS FOR COUNTYWIDE RDF ISOLATION BREAK EXCAVATION ACTIVITIES		
Personal Protective Equipment (PPE)	Selected	Comments
Safety Shoes	X	Always
Hard Hat	X	Within exclusion zone, outside of and within 50 feet of equipment.
Safety Glasses With Side Shields	X	Project Specific
High Visibility Traffic Vest	X	Always
Air Purifying Respirator		If site-specific monitoring indicated use is necessary
Gloves	X	Nitrile, PVC or similar for potentially contaminated material. Heavy duty work gloves for material handling. Leather for clearing vegetation
Other	X	Four-gas meter capable of monitoring O2, LEL, CO, and H2S

Potential Hazard	Controls
Chemical exposure	<p>Compliance with Section 6, Exposure Monitoring.</p> <p>Wash hands before eating or drinking.</p> <p>Hazard communication labels on all chemical containers. MSDSs onsite for all chemicals in use.</p> <p>Site-specific training must address chemicals, hazards, and proper handling.</p> <p>Safety glasses and nitrile gloves for chemical/contaminant contact, or PPE as required in the MSDS.</p> <p>Review in tailgate meeting.</p>
Contact with overhead structures or utilities	<p>Survey location and ensure absence of obstructions and overhead utilities prior to setup.</p> <p>Equipment will not be allowed to come within 10 feet overhead power lines.</p> <p>Use spotter when working near utilities.</p> <p>Review in tailgate meeting.</p>
Electric Shock	<p>Compliance with Countywide Electrical Procedures.</p> <p>Portable electrical tools and all portable electrical equipment must be connected through ground fault circuit interrupters.</p>
Excavation collapse	<p>Excavation conducted under the direction of the OSHA Excavation Competent Person.</p> <p>Slope per stability analysis.</p>
Falling equipment	<p>No workers under suspended loads.</p>
Fire	<p>Equipment to be turned off during fueling.</p> <p>Allow gasoline-powered equipment to cool prior to fueling.</p> <p>Fire extinguisher rated 2A and 5BC (serviced annually and inspected monthly) in all fuel use areas.</p>
Fire/Explosion	<p>Monitoring of landfill gas in accordance with Section 6.</p> <p>Standby equipment and materials available for use in managing small fires.</p> <p>Extinguish small fires by smothering with soil from the stockpile maintained in close proximity to the excavation areas.</p> <p>If attempts to extinguish the fire are unsuccessful, implementation of the Incident Emergency Response Plan.</p>

Potential Hazard	Controls
General hazards	<p>Work performed in accordance with Countywide specific procedures and OSHA Regulations.</p> <p>Level D PPE</p> <p>Ground personnel limited to necessary personnel only. Unnecessary personnel will stay out of the excavation area.</p> <p>Particular attention paid to sloping site conditions.</p> <p>Excavation contractors to supplement JSA with specific hazard controls.</p> <p>Operators to stay in enclosed cabs.</p>
Lifting (musculoskeletal injuries)	<p>If equipment is to be moved, an evaluation of potential pinch points and/or weight strain will be conducted.</p> <p>Clear area of all unnecessary equipment and slip/trip hazards.</p> <p>Additional help will be obtained by workers or mechanical assistance used onsite if equipment to be moved is unwieldy, has a weight >50 lbs or has to be moved by maneuvering through awkward positioning.</p> <p>Ensure gloves are available and used.</p>
Lighting	Artificial lighting must provide a minimum of 5 ft-candles of even lighting in the work area for work conducted before sunrise and after twilight.
Noise	Equipment-specific monitoring indicates that noise levels are less than 85 decibels.
Pinch hazards	<p>Keep hands clear of all articulated or moving parts.</p> <p>Guards shall be maintained for all machinery representing a pinch hazard.</p> <p>Maintenance on equipment with articulating or moving parts shall be performed only after control keys have been put under control by competent mechanics/operators only.</p> <p>Ensure all hands are clear of potentially moving part before energizing equipment.</p>
Risk of being struck by vehicles	<p>Face line of danger with respect to being struck by vehicles.</p> <p>Eye contact with operator when walking up to or around heavy equipment.</p> <p>Stay out of swing range.</p> <p>Heavy Equipment equipped with functional backup alarm.</p>
Rotating and/or moving equipment	<p>Avoid loose fitting gloves around rotating equipment.</p> <p>Allow all moving parts to stop before handling</p>
Slips/falls from equipment	Always use 3-point mount/dismount. Do not jump from equipment. Utilize approved mounting steps, brackets, hand-holds, or rails.
Struck by moving/mobile equipment	<p>Operators required to have documented training and 1 years of experience operating the type of equipment to be used.</p> <p>Periodic safety inspection of equipment at frequency given in operator manual to be performed by operator.</p> <p>Functional backup alarms required on all mobile equipment.</p> <p>Operator manual onsite at all times.</p> <p>Workers will maintain a safe distance equivalent to the full, extended reach of all moving/mobile equipment.</p> <p>Approach mobile/moving equipment only after getting permission of the operator.</p> <p>Maintain visual contact with equipment operators at all times.</p> <p>Personnel shall not place themselves between Heavy Equipment and fixed objects.</p>
Temperature stress	If temperature is above 80°F or below 40°F, administrative controls will be implemented (cooled or warmed drinks, routine breaks in heated or shaded area, provisions, for emergency heating or cooling).
Tipping over hazards	<p>Load limits and capacities for loading and hauling equipment strictly adhered to.</p> <p>Always dump on level ground.</p>
Vehicle Accidents	<p>All Countywide traffic laws including speed limits and use of seat belts strictly adhered to.</p> <p>Only licensed drivers to operate vehicles.</p> <p>Vehicles and heavy equipment inspected at beginning of work shift.</p> <p>Vehicle and Equipment traffic must be controlled and directed.</p>
Visibility	If condensation is produced in significant quantities to affect worker visibility, ventilation will be used to clear the area to ensure visibility is maintained.

APPENDIX B

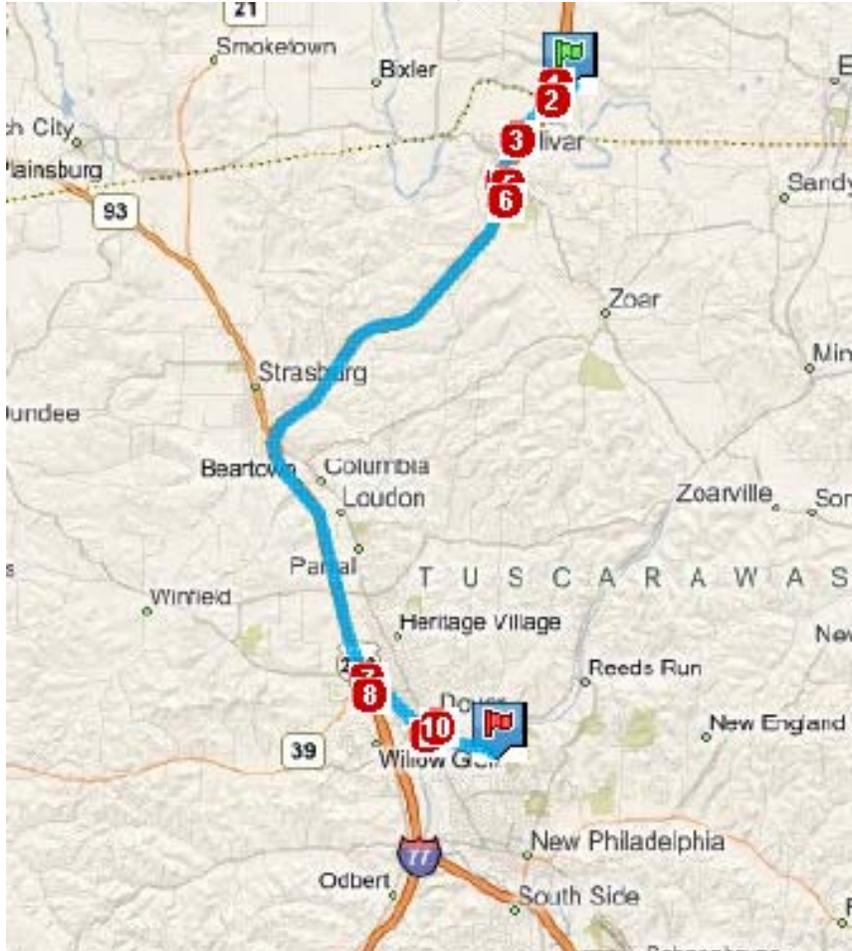
**HOSPITAL LOCATION MAP
AND
EMERGENCY PHONE NUMBERS**

IN CASE OF EMERGENCY DIAL 911

PROJECT CONTACT NUMBERS

F&O Project Manager Michael Beaudoin	(cell) (734) 634-9539
Isolation Break Construction Manager Daniel Fleshour	(work) 513-782-4558 (cell) 513-284-3615
Isolation Break Health & Safety Manager Martha Clough	(work) 330-405-5804 (cell) 216-287-0450
Prime Contractor Supervisor Rusty Hannahs	(cell) (330) 353-3935

**HOSPITAL MAP
UNION HOSPITAL
659 BOULEVARD STREET
DOVER, OH**



DIRECTIONS TO HOSPITAL:

1. Depart Gracemont St SW 0.3 mi
2. Keep left to stay on Gracemont St SW 0.1 mi
3. Bear left onto Sherman Church Ave SW 0.3 mi
4. Road name changes to CR-102 / Sherman Church Rd NE 0.8 mi
5. Road name changes to Mulberry St / Park Ave SW 0.4 mi
6. Keep straight onto SR-212 / Park St SE 0.4 mi
7. Turn left to stay on SR-212 / N Cary Dr 0.1 mi
8. Take ramp right and follow signs for I-77 South 9.8 mi
9. At exit 83, take ramp right for Oh-39 toward Sugarcreek / Dover 0.2 mi
10. Turn left onto SR-39 / SR-211 / N Tuscarawas Ave 1.2 mi
11. Turn left onto W Front St 0.2 mi
12. Turn right onto SR-800 / Wooster Ave 0.5 mi
13. Keep left to stay on SR-800 / E Iron Blvd 0.6 mi
14. Arrive at 659 Boulevard St

EMERGENCY INFORMATION

Revised 7-17-07

Site Name: Countywide RDF
Address: 3619 Gracemont Ave. S.W. East Sparta, Ohio 44626
Phone: 1-330-874-3855

Directions:

From the North, take I-77 South to Fohl Road (exit 99). Turn right (West) and go to the first stop light, this is Sherman Church. Turn left (South) and go five miles to Gracemont Ave. Turn left (East) onto Gracemont and go about one fourth mile. Entrance is on left.

From the South, take the Bolivar exit (Exit 93) and turn to the left (Rt 212 West). Go to the stop sign and turn right (North). Stay on this road and do not make any turns until you are out of town (about one mile). The first road to the right (East) will be Gracemont Ave. Turn right and go one fourth mile. Entrance is on left.

EMERGENCY PHONE NUMBERS

When calling 911, wait 20 seconds for answer. Ask for response from both East Sparta and Bolivar emergency services.

Life Flight location		40, 41' 20.02 "N" LAT	40, 41' 20.02 "N" LAT
American Red Cross - Stark County			330-453-0146
Aultman Hospital	2600 6th St. SW, Canton		330-452-9911
Bolivar Fire Department			330-874-3115
East Sparta Fire Department	911		330-866-9211
Electrical Contractor - Hilscher Clarke			330-452-9806
Gas Company for Site - Northeast Ohio Natural Gas Corporation			800-237-2099
MedFlight	Columbus		800-222-5433
Mercy Medical Center	1320 Mercy Dr. N.W., Canton		330-489-1000
Metro Life Flight	Cleveland		800-255-2229
National Response Center			800-424-8802
OEPA Emergency Response Office			800-282-9378
Ohio Department of Natural Resources			614-799-9574
Ohio EMA			614-889-7150
Ohio EPA - Canton City			330-489-3385
Ohio Highway Patrol - Stark County			330-453-3273
Ohio Highway Patrol - Tuscarawas County			330-339-1103
Ohio State Fire Marshal			614-752-8200
OSHA - Cleveland			216-615-4266
Poison Control Center			800-222-1222
Power Company for Site - American Electric Power			800-672-2231
Stark County EMA	Tim Warstler	(24HR) Spill Reporting 330-451-3911	(Day) 330-451-3900
Stark County Health Commissioner			330-575-8401
Stark County Health Department			330-493-9904
Stark County LEPC	Don McDonald		330-451-3907
Stark County Sheriff		911	330-430-3800
Tuscarawas Sheriff			330-339-2000
Union Hospital	659 Boulevard, Dover		330-343-3311

CORPORATE MANAGEMENT

		Office
Ron Krall	Regional Vice President	703-234-4601
Jim Bowen	Area President	330-926-5858
David Spruance	Director Risk Management	954-769-7132
Laura Day	Assistant to Risk Management	954-769-2663
Mike Lambert	Corporate Safety Manager	954-769-3286

SITE EMPLOYEE'S

		Home	Cell
Tim Vandersall	Manager	1-330-699-5274	330-618-7272
Todd Hamilton	Engineer	1-330-343-9964	517-290-3151
Nancy Elliott	Office	1-330-339-6599	330-340-7793
Larry Elliott	Operations	1-330-339-6599	330-340-0318
Paul Finton	Safety	1-740-545-9468	740-294-1337
Randy Lane	Maintenance	1-740-545-6678	330-340-2842
Jack Palermo	Sales	1-330-533-1917	330-806-9660
James Steigerwald	Environmental	1-330-497-4678	330-316-2020
Dwight Parsons	Special Waste Inspector	1-330-484-6507	330-418-4584

EMERGENCY CONTRACTOR'S

Beaver Excavating	2000 Beaver Place Ave, SW, Canton, Ohio	330-478-2151
JMW Trucking	512 45th Street, SW canton, Ohio	330-484-2428
SUNPRO	7392 Wipple Ave, N. Canton, Ohio	330-966-0910
Heritage Environmental	5451 Enterprise Blvd, Toledo, Ohio	419-729-1321
Clean Harbors	2900 Rockefeller, Cleveland, Ohio	216-429-2401
American Environmental Group	3600 Brecksville Road, Richfield, Ohio	330-659-5930

