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USA

Transmitted Via Overnight Delivery

November 4, 2008

Mr. Richard Hull
U.S. Environmental Protection Agency
EPA New England
One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

**Re: GE-Pittsfield/Housatonic River Site
Hill 78 Area-Remainder Removal Action Area (GEC160)
Supplemental Information Package**

Dear Mr. Hull:

On June 20, 2008, the General Electric Company (GE) submitted to the U.S. Environmental Protection Agency (EPA) the *Final Removal Design/Removal Action Work Plan for Hill 78 Area-Remainder* (Final RD/RA Work Plan). The Final RD/RA Work Plan included responses to certain conditions specified by EPA in its April 23, 2008 letter conditionally approving GE's the February 2008 *Conceptual Removal Design/Removal Action Work Plan for Hill 78 Area-Remainder* (Conceptual Work Plan), a summary of the pre-design investigation activities performed at the Hill 78 Area-Remainder Removal Action Area (RAA), a summary of the PCB and Appendix IX+3 evaluation procedures and results, design information, an implementation plan, a discussion regarding Remediation Contractor selection, details regarding post-construction activities, and the anticipated schedule of construction activities. The Final RD/RA Work Plan was prepared and submitted in accordance with the Consent Decree (CD) for the GE-Pittsfield/Housatonic River Site and the accompanying *Statement of Work for Removal Actions Outside the River* (SOW) (Appendix E to the CD).

By letter dated August 20, 2008, EPA conditionally approved the Final RD/RA Work Plan and required submittal of an Addendum to the Final RD/RA Work Plan within 30 days of the date of that letter (i.e., by September 19, 2008). In response to the conditions set forth in that letter, an *Addendum to Final RD/RA Work Plan* (Addendum) summarizing and addressing each of EPA's approval conditions and presenting certain modifications to the Final RD/RA Work Plan was prepared and submitted to EPA on September 18, 2008. The Addendum was conditionally approved by EPA in a letter dated October 28, 2008.

On October 6, 2008, GE selected a Remediation Contractor for the remediation work to be performed at the Hill 78 Area-Remainder Removal Action Area (RAA). As outlined in the Addendum, GE is required to submit, within 30 days of that selection, a Supplemental Information Package (SIP) to provide certain Contractor-specific information and implementation details that were not available at the time the Final Work Plan and Addendum were submitted.

This letter and its attachments constitute GE's SIP for the remediation actions to be performed at the Hill 78 Area-Remainder RAA.

Contents of Supplemental Information Package

Section 10 of the Final RD/RA Work Plan stated that this SIP would include the following information:

- Identification of and contact information for the selected Remediation Contractor;
- Copies of the Remediation Contractor's pre-mobilization submittals (i.e., Operations Plan, Health & Safety Plan, and Contingency Plan);
- Identification of backfill sources and locations;
- Analytical data for samples collected from the backfill sources (unless the backfill sources have already been approved based on previously submitted analytical data);

Each of these items is discussed below.

Selection of Remediation Contractor

GE has selected Billings D.R., Inc. ("Billings") of Lanesboro, Massachusetts, to conduct remediation actions at the Hill 78 Area-Remainder RAA. Contact information for Billings is as follows:

D.R. Billings, Inc.
Donald A. Puntin
730 Cheshire Road
Lanesboro, MA 01237
Telephone: (413) 442-2476
Fax: (413) 442-5156

Remediation Contractor's Pre-Mobilization Submittals

Billings has prepared pre-mobilization submittals. Copies of Billings' Health & Safety Plan, Contingency Plan, and Operations Plan are provided as Attachments A, B, and C to this letter, respectively.

Backfill Information

Billings has identified Billard's Pit (located in Washington, Massachusetts) as the proposed backfill and topsoil sources for Hill 78 Area-Remainder. This source, which was utilized during the storm and sanitary sewer relocation project performed in this area, has already been approved based on previously submitted analytical data. Therefore, no analytical results related to that backfill source are presented in this SIP.

Please feel free to contact me if you have any questions regarding this letter or the attached supplemental information.

Sincerely,



Richard W. Gates
Remediation Project Manager

Attachments

cc: Tim Conway, EPA
Dean Tagliaferro, EPA
Holly Inglis, EPA
Rose Howell, EPA*
Robert Cianciarulo, EPA
K.C. Mitkevicius, USACE (CD)
Linda Palmieri, Weston (2 copies and CD)
Michael Gorski, MDEP (2 copies)
Anna Symington, MDEP*
Jane Rothchild, MDEP*
Nancy E. Harper, MA AG*

Dale Young, MA EOE*
Mayor James Ruberto, City of Pittsfield
Thomas Hickey, Director, PED
Jeffrey Bernstein, BCK Law
Theresa Bowers, Gradient
Michael Carroll, GE *
Rod McLaren, GE*
James Nuss, ARCADIS
James Bieke, Goodwin Procter
Tim Eglin, Pureenergy I, LLC
Public Information Repositories
GE Internal Repositories

* *without attachments*

Attachment A

Health and Safety Plan
(prepared by D.R. Billings, Inc.)

HEALTH AND SAFETY PLAN

Hill 78 Area-Remainder
Removal Action Area Project

General Electric Company
Pittsfield, Massachusetts

Prepared by:
Todd Andrews
D. R. Billings, Inc.
730 Cheshire Road
Lanesboro, MA 01237

October 2008

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1.0 INTRODUCTION

D.R. Billings, Inc. has been contracted by General Electric Company (GE) to conduct all activities associated with soil related remediation activities located on the Hill 78 property. This Health and Safety Plan (HASP) has been developed to identify the health and safety procedures to be implemented by D.R. Billings in order to establish safe working conditions for its employees.

This plan was written in conformance with the requirements of the GE Request for Proposal, Hill 78 Area Remainder, June 2008, the General Electric Company Project Operations Plan (POP), 29 CFR 1910, and 29 CFR 1926.

1.1 Project Description

The project comprises of soil related remediation activities at the Hill 78 location. This area is comprised of GE owned tax parcels K11-7-2 and K11-7-201, and tax parcel K11-7-1 located in the southwest portion of the RAA along Merrill Road. This soil remediation project is the result of evaluations of PCBs in soil under post-remediation conditions. These soil remediation activities in the “Hill 78 Area-Remainder” will achieve the applicable performance standards under the Consent Decree (CD) and Statement of Work for Removal Actions Outside the River (SOW).

1.2 Plan Scope

This Health and Safety Plan (HASP) has been developed to identify, evaluate and control health and safety hazards and provide resources and planning to respond to emergency situations which may arise during the course of site activities.

The HASP covers all site activities associated with the project as described above. These activities include, but are not limited to the following:

- Site preparation and clearing
- Heavy equipment operation and maintenance
- Soil excavation, stockpiling and handling
- Employee air monitoring
- Dust suppression activities
- Excavation area water management and erosion control
- Equipment decontamination
- Site restoration
- Support operations

1.3 Site Characterization

The Hill 78 OPCA is an approximately 6-acre area located near the center of the former General Electric (GE) Company facility in Pittsfield, Massachusetts. This area includes the former Hill 78 landfill, which was originally created in the early 1940s as an on-site disposal area for excavated soils generated within the GE facility and was capped in 1991. The landfill is used as an on-plant consolidation area for some of the excavated materials which are removed as part of the various Removal Actions at the Pittsfield/Housatonic River Site. A site map is provided as Appendix A.

2.0 ORGANIZATION AND RESPONSIBILITY

2.1 Key Personnel

Project Manager

The Project Manager (PM) is responsible for providing resources to assure project activities are completed in accordance with this HASP and for meeting regulatory and contractual requirements. The PM is responsible for verifying that the project is performed in a manner that is consistent with the HASP, Site Management Plan and the Project Operations Plan. The PM is responsible for communicating health and safety information as necessary to GE or the on-site contractor.

Site Safety Officer

The Site Safety Officer (SSO) has overall responsibility for the implementation of this HASP. The SSO responsibilities shall include, but are not limited to, the following:

- Provide initial site training to all employees
- Conduct daily safety meetings
- Perform daily site inspections
- Conduct and/or oversee health and safety monitoring
- Maintain documentation of health and safety requirements
- Prepare monthly summaries of injuries and manhours lost
- Assess PPE in response to changes in work activity, weather or other site conditions
- Direct personnel to modify work practices if they are found to be hazardous
- Implement emergency procedures, evacuation routes and other pertinent emergency response information as required
- Report any accidents or violations of the HASP to the Project Manager
- Maintain all health and safety equipment on-site in accordance with the HASP
- Remove personnel from the project if their actions are found to be unsafe or if conditions at the site are found to be hazardous
- Stop work at the site if any condition is detected that presents an imminent danger to the health and safety of workers or the general public.

Specific tasks may be delegated and overseen by the SSO, however, the SSO still retains responsibility for ensuring the tasks are completed in accordance with the HASP.

On-Site Supervisor/Foreman

The On-Site Supervisor/Foreman is responsible for coordination of all personnel and resources needed for the completion of the project activities. The supervisor/foreman's responsibilities include the following:

- Providing authority and resources to the SSO to allow for implementation of all necessary safety procedures
- Coordination of activities of all employees/subcontractors and ensuring they are made aware of all pertinent health and safety requirements

- Providing project scheduling and planning activities
- Ensuring that employees are in compliance with all provisions of the HASP.

2.2 All Personnel

All D.R. Billings personnel must adhere to the procedures outlines in this HASP during the performance of their work. Each person is responsible for completing tasks safely and reporting any unsafe acts or conditions to their supervisor. No person may work in a manner that conflicts with the procedures detailed in this HASP.

Emergency Contact Information

Name	Company	Responsibilities	Phone Numbers
D. R. Billings Personnel			
Dudley Billings	D.R. Billings	Sr. Project Manager	413-442-2476 (office) 413-446-2827 (cell)
Donald Puntin	D.R. Billings	Project Manager	413-442-2476 (office) 413-446-3103 (cell)
Glenn Newton	D.R. Billings	On-Site Supervisor	413-442-2476 (office) 413-281-9772 (cell)
Bill Goddard	D.R. Billings	Site Safety Officer	413-442-2476 (office) 413-212-1883 (cell)
General Electric/ARCADIS Personnel			
Plant Protection	General Electric	Emergency Response	413-448-6666
Dick Gates	General Electric	GE Project Manager	413-448-5909
Cory Averill	ARCADIS	ARCADIS Project Manager	315-671-9224
Bob Papallo	ARCADIS	ARCADIS On-Site Manager	413-448-5969 (office) 413-281-0704 (cell)
Off-Site Emergency Personnel (only if Plant Protection cannot be contacted)			
Fire	Pittsfield Fire Department	Fire Emergency	911
Police	Pittsfield Police Department	Police Response	911
Hospital	Berkshire Medical Center	Medical Emergency	413-447-2000

3.0 PROJECT HAZARDS AND CONTROL MEASURES

3.1 Scope of Work

This HASP covers work activities described in Section 1.2 Plan Scope. Work activities are expected to include the following:

- Mobilization;
- Site preparation and site restoration activities;
- Soil Excavation, stockpiling and handling;
- Employee air monitoring;
- Decontamination activities;
- Demobilization.

3.2 Field Activities, Hazards, Control Procedures

The following job safety analyses identify potential health, safety, and environmental hazards associated with each type of field activity. Because of the changing nature of field activities, supervisors must continually inspect the site to identify hazards that may affect on-site personnel, the community, or the environment. The SSO must be aware of these changing conditions and discuss them with the PM whenever these changes impact employee health, safety, the environment, or performance of the project. The SSO will keep on-site personnel informed of the changing conditions and the PM will write and/or approve addenda or revisions to this HASP as necessary.

3.2.1 Mobilization

Site mobilization will include establishing work areas, site layout, determining the location of utilities and other installations, establishing site security, implementing erosion and dust control measures, and establishing work zones. Mobilization may also include setting up equipment and establishing a temporary site office. A break area will be set up outside of regulated work areas. Mobilization may involve clearing areas for the SZ and CRZ. During this initial phase, project personnel will walk the site to confirm the existence of anticipated hazards and identify safety and health issues that may have arisen since the writing of this plan.

Hazards: The hazards of this phase of activity are associated with vehicular traffic, heavy equipment operation, manual materials handling and manual site preparation.

Manual materials handling and manual site preparation may cause blisters, sore muscles, and joint and skeletal injuries; and may present eye, contusion, and laceration hazards. Installation of temporary field office and support facilities may expose personnel to electrical hazards, underground and overhead utilities, and physical injury due to manual

lifting and moving of materials. The work area may present slip, trip, and fall hazards from scattered debris and irregular walking surfaces. Rainy weather may cause wet, muddy, slick walking surfaces and unstable soil. Freezing-weather hazards include frozen, slick, and irregular walking surfaces. Vehicular traffic poses serious physical hazards to personnel should necessary precautions not be taken.

Environmental hazards include plants, such as poison ivy and poison oak; aggressive fauna, such as ticks, fleas, mosquitoes, wasps, spiders, and snakes; weather such as sunburn, lightning, rain, and heat- or cold-related illnesses; and pathogens, such as rabies, Lyme Disease, and blood-borne pathogens.

Control: Control procedures for these hazards are discussed in Section 4, General Safety Practices. Control of hazards associated with vehicular traffic is outlined in Section 3.2.1.1 below.

3.2.1.1 Traffic Safety

On-site traffic will generally be limited to on-site construction contractors, GE project management personnel, environmental contractors, and regulatory representatives. The project site is not located adjacent to a public roadway where exposure to vehicular traffic is likely. Traffic may be encountered as vehicles enter and exit the property. To minimize the likelihood of project personnel and activities being affected by traffic, the following procedures will be implemented.

The Massachusetts State Police must be contacted and an officer present outside the work area prior to any activity that occurs in a public roadway (including the shoulder).

All site personnel who are potentially exposed to vehicular traffic must wear an outer layer of orange warning garments such as vests, jackets, or shirts. If work is performed in hours of dusk or darkness, workers will be outfitted with reflective garments, either orange, white (including silver-coated reflective coatings or elements that reflect white light), yellow, fluorescent red-orange, or fluorescent yellow-orange.

The flow of traffic into and out of the site must be assessed and precautions taken to warn motorists of the presence of workers and equipment. Where possible, vehicles will be aligned to provide physical protection of people and equipment.

The movement of heavy equipment and construction vehicles on public roadways will be performed in accordance with appropriate Massachusetts regulations. Vehicle traffic in and out of the work site will be controlled by the project manager and SSO.

3.2.2 Site Preparation and Restoration Activities

This activity consists of active site work of moving on-site materials manually or with heavy equipment. Activities will include truck operation, control of site traffic and equipment, heavy equipment operation and maintenance, soil handling, and use of hand tools.

Hazards: The physical hazards involved with activities related to the work done with heavy equipment, hand tools, and the site environment itself. There exists a potential for incidents involving personnel being struck or struck against equipment or materials, resulting in fractures, cuts, punctures, or abrasions. Walking and working surfaces may involve slip, trip, and fall hazards. Working at elevations may create a potential fall hazard. Slippery work surfaces can increase the likelihood of back injuries, overexertion injuries and slips and falls. Excavation and site restoration activities expose personnel to hazards associated with working in the vicinity of heavy equipment.

Manual materials handling may cause blisters, sore muscles, and joint and skeletal injuries; and may present eye, contusion and laceration hazards. The most common type of injury that occurs in material handling operations is the “caught between” situation when a load is handled and a finger or toe gets caught between two objects. Due to the type of work involved in this task, the primary health hazards involve potential exposure to site COCs. Noise may also present a hazard. Operation of heavy equipment, power tools, and powder and pneumatic actuated tools frequently result in high noise levels.

Control: Prior to initiating any field activity, the site conditions will be discussed with all employees (including subcontractors). Hazards will be identified and protective measures will be explained. Equipment will be inspected and in proper working condition. Employees shall receive training to address the equipment’s operation and care. Mechanical assistance shall be provided for large lifting tasks. Hearing protection is required for use when personnel are exposed to noise levels exceeding 85 dBA, or a level that commonly results in difficult conversation. Control procedures for these hazards are discussed in Section 4, General Safety Practices. Control procedures for hazards associated with excavations and heavy equipment operation are presented in the following sections. Decisions regarding PPE will be based on the potential chemical and physical hazards on the site, and measurements and observations made prior to and during work activities.

This task involves removing earthen materials from a designated area, thereby creating a man-made cut, trench, or depression in the earth’s surface.

The physical hazards involved in the excavation of soils are related to the excavation itself and the operation of heavy equipment. The presence of overhead utilities, such as power lines, requires careful positioning of the excavating equipment in order to maintain a safe distance between the lines and closest part of the equipment. The presence of underground utilities (such as gas lines, power lines, water lines, and sewer pipes) must be determined prior to beginning the excavation.

Excavations pose significant hazards to employees if they are not carefully controlled. There exists a chance for the excavations to collapse if it is not dug properly, sloped, benched, or shored as required by 29 CFR 1926 Subpart P. Protective systems, as required by 29 CFR 1926 Subpart P, must be utilized if the potential for hazardous cave-ins exist. The excavation also is a fall hazard, and employees must pay careful attention to what they are doing or they risk a fall into the excavation. Fall protection, as required by 29 CFR 1926 Subpart M, will be required.

Some activities may require personnel to enter an excavation. Whenever feasible, equipment placement and other activities shall be done remotely without entering the excavation. If entry is absolutely unavoidable, the safety procedures for excavation entry and employee protective systems consistent with 29 CFR 1926 Subpart P shall be followed for each such activity. Air monitoring in accordance with Section 8, Site Monitoring is required for all excavation entry activities.

Noise also may represent a hazard. Heavy equipment operation frequently results in noise levels exceeding 85 dBA, requiring the use of hearing protection.

Before excavation activities commence, the existence and location of underground pipe, electrical equipment, and gas lines shall be determined. This will be done, if possible, by contacting the appropriate client representative to mark the location of the lines. If the client's knowledge of the area is incomplete the appropriate device, such as a magnetometer, will be used to locate the line. The SS will conduct a site walkover with the appropriate client representative to visually identify each location where excavation and drilling activities are to be completed during site operations. The Underground/Overhead Utility Checklist (Appendix K) shall be used to document that nearby utilities have been marked on the ground and the excavation and drilling areas have been cleared. The completed checklist will be in the possession of the SS prior to commencement of any intrusive investigation.

All excavation activities and personnel entry into an excavation will be conducted in accordance with 29 CFR 1926 Subpart P. If excavation operations are located near underground installations, the exact location of the installations must be determined by safe and acceptable means. While the excavation is open, underground installations must be protected, supported, or removed as necessary to safeguard employees.

Airborne concentrates of COCs in the site soil and the dust from the excavation procedure pose the potential for inhalation exposure. PPE for this phase is described in Section 5, Personal Protective Equipment. Airborne particulate generations will be

controlled during site excavations. Dry, dusty soil will be wetted with a water spray from a potable water source to control the generation of dust. Soil will not be wetted to a degree which will cause runoff or erosion.

At the end of each workday, open test pit excavations will be backfilled or covered and fenced to prevent access. Equipment will be moved to a location away from high-voltage electrical equipment and away from routes necessary to access high-voltage electrical equipment.

3.2.2.1 Excavation Access, Egress, and General Requirements

Structural ramps used for access or egress of personnel and equipment must be designated by a competent person qualified in structural design and must be constructed in accordance with the design. Ramps and runways constructed of two or more structural members must have the structural members connected together to prevent displacement. Structural members used for ramps and runways must be of uniform thickness. Cleats or other appropriate means used to connect runway structural members must be attached to the bottom of the runway or must be attached in a manner to prevent tripping. Structural ramps used in lieu of steps must be provided with cleats or other surface treatments to the top surface to prevent slipping.

A stairway, ladder, ramp, or other safe means of egress must be located in trench excavations that are 4 feet or more in depth, so as to require no more than 25 feet of lateral travel for employees.

No person shall be permitted underneath loads handled by lifting or excavating equipment. Site personnel must be required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles are equipped, in accordance with 1926.601(b)(6), to provide adequate protection for the operator during loading and unloading operations. When mobile equipment is operated adjacent to an excavation, or when such equipment is required to approach the edge of an excavation and the operator does not have a clear and direct view of the edge of the excavation, a warning system must be utilized such as barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.

In addition to the requirements set forth in 29 CFR 1926.50-1926.107, to prevent exposure to harmful levels of atmospheric constituents and to assure acceptable atmospheric conditions, the following requirements apply:

- When oxygen deficiency (atmospheres containing less than 19.5% oxygen) or other hazardous atmosphere exists or could reasonably be expected to exist, such as in excavations in landfill areas, or excavations in areas where

hazardous substances are stored nearby, the atmosphere in the excavation must be tested before employees enter the excavation.

- Adequate precautions must be taken to prevent employee exposure to atmospheres containing less than 19.5% oxygen and other hazardous atmospheres. These precautions include providing proper respiratory protection or ventilation in accordance with 29 CFR 1926.50-1926.107.
- Adequate precaution must be taken, such as providing ventilation, to prevent employee exposure to an atmosphere containing a concentration of a flammable gas in excess of 10 % of the Lower Explosive Limit (LEL) of the gas.
- When controls are used that are intended to reduce the level of hazardous atmospheric constituents to acceptable levels, testing must be conducted as often as necessary to ensure that the atmosphere remains safe.

Emergency rescue equipment (i.e. breathing apparatus, a safety harness and line, or a basket stretcher) must be readily available where hazardous atmospheric conditions exists or may reasonably be expected to develop during work in an excavation. Support personnel must attend this equipment when in use.

Employees must not work in excavations where there is accumulated water, or water is accumulating, unless adequate precautions have been taken to protect employees against hazards posed by water accumulation. The precautions necessary to protect employees vary with each situation, but could include special support or shield systems to protect from cave-ins, or water removal to control the level of accumulating water. If water is controlled or prevented from accumulating by the use of water removal equipment, the water removal equipment and operations must be monitored by a competent person to ensure proper operation.

If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other suitable means must be used to prevent surface water from entering the excavation to provide adequate drainage of the area adjacent to the excavation. Excavations subject to runoff from heavy rains will require frequent inspections by a competent person.

Where the stability of adjoining buildings, walls, or other structures may be compromised by excavation operations, support systems such as shoring, bracing, or underpinning must be provided to ensure the stability of each structure for the protection of employees. Excavation below the level of the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard to employees is not permitted except when:

- A Registered Professional Engineer has approved the determination that the structure is sufficiently removed from the excavation so as to be unaffected by the excavation activity; or
- A Registered Professional Engineer has approved the determination that such excavation work will not pose a hazard to employees.

Sidewalks, pavements, and appurtenant structures must not be undetermined unless a support system or other method of protection is provided to protect employees from the possible collapse of such structures. Adequate protection must be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from excavation face. Such protection must consist of scaling to remove loose material, installation of protective barricades at intervals as necessary on the face to stop and contain falling materials, installation of protective barricades at intervals as necessary on the face to stop and contain falling material, or other means that provide equivalent protection.

Employees must be protected from excavated or other materials or equipment that could pose a hazard by falling or rolling into excavations. Protection must be provided by placing and keeping such materials or equipment at least 2 feet from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.

Personnel entering an excavation must do so under controlled conditions. The excavation must be properly sloped, benched, or shored, and ladders or ramps must be available every 25 feet laterally in the excavation. Each entry shall have an attendant who observes the entrant(s) and is prepared to render assistance.

Duties of Personnel Entering an Excavation:

- Know the hazards that may be encountered during entry into the excavation, including information on the mode, signs or symptoms, and consequences of exposure to site contaminants;
- Communicate with the attendant as necessary to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the excavation;
- Alert the attendant to any symptoms of exposure or warning sign of a dangerous situation; and
- Exit from the excavation as quickly as possible if an order to evacuate is given by the attendant or a supervisor, and if an entrant recognizes any symptom of exposure or warning sign of a dangerous situation.

Duties of Attendants:

- Know the hazards that may be encountered during entry into the excavation, including information on the mode, signs or symptoms, and consequences of exposure to site contaminants;
- Maintain a count of entrants in the excavation;
- Remain outside the excavation during and until the conclusion of entry operations or relieved by another attendant;
- Communicate with the entrant(s) as necessary to monitor entrant status and to alert entrants of the need to evacuate the excavation under any of the following conditions:
 - If the attendant detects a hazardous condition either inside or outside of the excavation that could endanger the entrant(s)
 - If the attendant detects the behavioral effects of exposure to a hazardous atmosphere in an entrant; and
 - If the attendant cannot effectively and safely perform his duties.
- Summon rescue and other emergency services if entrants may need assistance to evacuate the excavation.

3.2.2.2 Inspections by a Competent Person

Daily inspections of excavations, adjacent areas, and protective systems must be made by the SSO or other competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection must be conducted by the competent person prior to the start of work and as needed throughout the shift. See the attached Daily/Periodic Excavation Inspection Form in Appendix L.

Inspections must be made after every rainstorm or other hazard-increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated. Where the competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres or other hazardous conditions, exposed employees must be removed from the hazardous area until the necessary precautions have been taken to ensure their safety.

Walkways must be provided where employees or equipment are required or permitted to cross over excavations. Guardrails, which comply with 1926.502(b), must be provided where walkways are 6 feet or more above lower levels. Adequate barrier protection must be provided at all remotely located excavations. All wells, pits, shafts, etc. must be barricaded or covered. Upon completion of exploration and other similar operations, temporary wells, pits, shafts, etc. must be backfilled.

3.2.2.3 Soil Classification

29 CFR 1926 Subpart P, Appendix A, describes methods of classifying soil and rock deposits based on site and environmental conditions and on the structure and composition of the earth deposits. The appendix contains definitions, sets forth requirements, and describes acceptable visual and manual tests for use in classifying soils. This appendix applies when a sloping or benching system is designed in accordance with the requirements set forth in 1926.652(b)(2) as a method of protection for employees from cave-ins. This appendix also applies when timber shoring for excavations is designed as a method of protection from cave-ins. This appendix also applies when timber shoring for excavations is designed as a method of protection from cave-ins in accordance with 29 CFR Subpart P, Appendix D. This appendix also applies if other protective systems are designed and selected for use from data prepared in accordance with the requirements set forth in 1926.652(c), and the use of the data are predicated on the use of the soil classification system set forth in Appendix A of 29 CFR 1926.

Maximum allowable slope means the steepest incline of an excavation face that is acceptable for the most favorable site conditions as protection against cave-ins, and is expressed as the ratio of horizontal distance to vertical rise (H:V). Short-term exposure means a period of time less than or equal to 24 hours that an excavation is open. Soil and rock deposits must be classified in accordance with Appendix A to 29 CFR 1926 Subpart P. The maximum allowable slope for a soil or rock deposit must be determined from Table B-1. The actual slope must not be steeper than the maximum allowable slope. The actual slope must not be less steep than the maximum allowable when there are signs of distress. If that situation occurs, the slope must be cut back to an actual slope which is at least 1/2 horizontal to one vertical (1/2 H:1V) less steep than the maximum allowable. When surcharge loads from stored material or equipment, operating equipment, or traffic are present, a competent person must determine the degree to which the actual slope must be reduced below the maximum allowable slope and assure that such reduction is achieved. Surcharges loads from adjacent structures must be evaluated in accordance with 1926.651(I). Configurations of sloping and benching systems must be in accordance with 29 CFR 1926 Subpart P, Appendix B.

Table B-1
29CFR 1926 SUBPART P APPENDIX B
MAXIUMUM ALLOWABLE SLOPES

Soil Type	Maximum Allowable Slopes (H:V) ⁽¹⁾ for Excavations Less Than 20 Feet Deep ⁽³⁾
Stable Rock	Vertical (90°)
Type A ⁽²⁾	3/4:1 (53°)
Type B	1:1 (45°)
Type C	1 1/2:1 (34°)

Footnote (1) Numbers shown in parentheses next to maximum allowable slopes are angles expressed in degrees from the horizontal. Angles have been rounded off.

Footnote (2) A short-term maximum allowable slope of ½:1 (63°) is allowed in excavations in Type A soil that are 12 feet or less in depth. Short-term maximum allowable slopes for excavations greater than 12 feet in depth must be ¾:1 (53).

Foot note (3) Sloping or benching for excavations greater than 20 feet deep must be designed by a registered professional engineer.

3.2.2.4 Overhead Electrical Clearances

If excavation activities are conducted in the vicinity of overhead power lines, power to the lines must be de-energized or the equipment must be positioned such that no part including the excavation boom, can come within the minimum clearances as follows:

Nominal System Voltage	Minimum Required Clearance
0-50kV	10 feet
51kV – 100kv	12 feet
101kV-200kV	15 feet
201kV-300kV	20 feet
301kV-500kV	25 feet
501kV-750kV	35 feet
751-1000kV	45 feet

When the equipment is in transit, with the boom lowered and no load, the equipment clearance must be at least 4 feet for voltages less than 50kV, 10 feet for voltages of 50 kV to 345 kV, and 16 feet for voltages above 345 kV.

3.2.2.5 Heavy Equipment Materials Handling

To protect on-site personnel against hazards associated with materials handling, and to prevent injury due to unsafe heavy equipment operation, only properly trained and authorized personnel will be allowed to operate heavy equipment. All material handling equipment will be maintained in a safe operating condition and inspected daily prior to use. General heavy equipment safety requirements include:

- Prior to operating any heavy equipment, the authorized operator must conduct a pre-operation inspection to determine if the heavy equipment is in safe operating condition prior to each work shift;
- All mobile equipment shall be equipped with an audible back-up alarm;
- Personnel will not be allowed to stand or pass under the elevated portion of any heavy equipment, whether loaded or empty;

- Personnel will not place arms and legs between pinch or scissor points of the equipment or outside the operator enclosure;
- A safe distance shall be maintained from the edge of excavations, ditches, ramps, or platforms;
- Operators will maintain sufficient clearance under overhead utilities, installations, lights, pipes, etc.;
- Heavy equipment must never be used for lifting or transporting personnel;
- The operator is required to look in the direction of and maintain a clear view of the path of travel;
- Heavy equipment shall not be operated without an overhead guard and roll-over protection to protect the operator against falling objects and equipment roll-over;
- Heavy equipment must not be driven up to anyone standing in front of any object;
- Stunt driving and horseplay are strictly prohibited;
- Operators will yield the right-of-way to other site vehicles;
- Other heavy equipment traveling in the same direction, at intersections, blind spots, or other dangerous locations must not be passed;
- A safe distance must be maintained from other heavy equipment and the equipment must be kept under control all times;
- The heavy equipment operator must slow down for wet and slippery conditions. Under all travel conditions, the equipment will be operated at a speed that will permit it to be brought to a stop in a safe manner;
- Operators will avoid running over loose objects on operating surfaces;
- Grades and ramps must be ascended and descended slowly;
- On all grades, the load will be tilted back and raised only as far as necessary to clear the operating surface;
- The operator will slow down and sound the horn at intersections, when entering buildings, and other locations where vision may be obstructed;
- If the load being carried obstructs forward view, the operator will travel with the load trailing;
- While negotiating turns, speed will be reduced to a safe rate and turning will be in a smooth, sweeping motion to avoid abrupt turns and potential equipment or load upset; and
- Authorized operators will only handle stable or safely arranged loads that are within the rated capacity of the heavy equipment and will not affect the stability of the heavy equipment.

3.2.2.6 Heavy Equipment Inspection and Maintenance

All heavy equipment in use shall be checked at the beginning of each shift to assure that the following parts, equipment, and accessories are in safe operating condition and free of apparent damage: brakes, parking brake, tires, horn, and steering, coupling devices, set belts, operating controls, back up alarm and safety devices. All defects affecting safe operation shall be corrected before the vehicle

is placed into service. These requirements also apply to equipment such as lights, reflectors, windshield and windshield wipers, fire extinguishers, etc., where such equipment is necessary.

Vehicle engines shall not be allowed to run in enclosed places unless vents are provided which effectively removes the exhaust gases from the building.

Except for emergency repairs, a safety tire rack, cage, or equivalent protection shall be used when inflating truck or equipment tires after mounting on the rim, if such tires depend upon a locking ring or similar device to hold them on the rim.

No repairs shall be attempted on heavy equipment until arrangements are to eliminate possibility of injury caused by sudden movements or operation of the equipment or its parts.

All controls shall be in a neutral position, with the engine stopped and brakes set, unless work being performed requires otherwise. Trucks with dump bodies shall be equipped with positive means of support, permanently attached, and capable of being locked in position to prevent accidental lowering of the body while maintenance or inspection work is being performed. In all cases where body is raised for any work, a locking device shall be used.

3.2.2.7 Equipment Parking and Loading

- Whenever equipment is parked, the parking brake shall be set. Equipment parked on inclines shall have the wheels chocked and the parking brake set.
- Scissor points on all front-end loaders which constitute a hazard to the operator shall be guarded. A loader shall not travel without adequate visibility for the driver and stability of the equipment.
- No loading device shall be left unattended until the load or bucket is lowered to the ground.

3.2.2.8 Equipment Fueling

No equipment shall be refueled while the engine is running. Fueling will be done in such a manner that the likelihood of spillage is minimal. If a spill occurs, it shall be contained and cleaned before restarting the engine.

A good metal-to-metal contact shall be kept between the fuel supply tank or nozzle of the supply hose and the equipment fuel tank. No open lights, welding, or spark-producing equipment or operations shall be allowed near the equipment being refueled or near the fuel storage area. No smoking shall be permitted at or near the fuel storage area or equipment being fueled. A conspicuous sign shall be posted in the area of equipment refueling that states "NO SMOKING WITHIN 50 FEET." No repairs shall be made on equipment while it is being refueled. All fuel

storage tanks, drums, or safety cans shall be properly marked and of the proper type.

3.2.3 Soil Excavation, Stockpiling and Handling

This activity consists of active site work of moving on-site materials manually or with heavy equipment. Activities will include truck and heavy equipment operation and maintenance, soil handling, and use of hand tools.

Hazards: The physical hazards involved with activities related to the work done with heavy equipment, hand tools, and the site environment itself. There exists a potential for incidents involving personnel being struck or struck against equipment or materials, resulting in fractures, cuts, punctures, or abrasions. Walking and working surfaces may involve slip, trip, and fall hazards. Working at elevations may create a potential fall hazard. Slippery work surfaces can increase the likelihood of back injuries, overexertion injuries and slips and falls. Excavation activities may expose personnel to fall hazards, unstable surfaces, and cave-ins. Excavation and site restoration activities expose personnel to hazards associated with working in the vicinity of heavy equipment.

Manual materials handling may cause blisters, sore muscles, and joint and skeletal injuries; and may present eye, contusion and laceration hazards. The most common type of injury that occurs in material handling operations is the “caught between” situation when a load is handled and a finger or toe gets caught between two objects. Due to the type of work involved in this task, the primary health hazards involve potential exposure to site COCs. Noise may also present a hazard. Operation of heavy equipment, power tools, and powder and pneumatic actuated tools frequently result in high noise levels.

Control: Prior to initiating any field activity, the site conditions will be discussed with all employees (including subcontractors). Hazards will be identified and protective measures will be explained. Equipment will be inspected and in proper working condition. Employees shall receive training to address the equipment’s operation and care. Mechanical assistance shall be provided for large lifting tasks. Hearing protection is required for use when personnel are exposed to noise levels exceeding 85 dBA, or a level that commonly results in difficult conversation. Control procedures for these hazards are discussed in Section 4, General Safety Practices. Control procedures for hazards associated with excavations and heavy equipment operation are presented in Section 3.2.2. Decisions regarding PPE will be based on the potential chemical and physical hazards on the site, and measurements and observations made prior to and during work activities.

3.2.5 Employee Air Monitoring

This activity consists of monitoring the site for the presence of ambient air contaminants using hand held monitors in the active construction zone. Activities will include site inspection and observation, calibration of equipment, and the operation equipment.

Hazards: The physical hazards a potential for incidents involving personnel being struck or struck against equipment or materials, resulting in fractures, cuts, punctures, or abrasions. Walking and working surfaces may involve slip, trip, and fall hazards. Working at elevations may create a potential fall hazard. Slippery work surfaces can increase the likelihood of back injuries, overexertion injuries and slips and falls.

Manual materials handling may cause blisters, sore muscles, and joint and skeletal injuries; and may present eye, contusion and laceration hazards. The most common type of injury that occurs in material handling operations is the “caught between” situation when a load is handled and a finger or toe gets caught between two objects. Due to the type of work involved in this task, the primary health hazards involve potential exposure to site COCs. Noise may also present a hazard. Operation of heavy equipment, power tools, and powder and pneumatic actuated tools frequently result in high noise levels.

Control: Prior to initiating any field activity, the site conditions will be discussed with all employees (including subcontractors). Hazards will be identified and protective measures will be explained. Equipment will be inspected and in proper working condition. Employees shall receive training to address the equipment’s operation and care.

3.2.6 Decontamination Activities

Equipment/materials cleaning will be performed to control the transfer of COCs from the sample sites. Equipment will be cleaned by scrubbing with a mild detergent/citrus solvent or a water to remove visible dirt and dust.

Hazards: Sources of chemical hazards from decontaminating equipment are decontamination detergents or solvents, foreign matter, and COCs on the equipment prior to denomination and rinsate from the decontamination process. Physical hazards associated with this activity are back strain, slippery surfaces, cuts and burns from the high-pressure steam wash, and hearing loss due to high levels of noise generated by the equipment

Control: Control procedures for these hazards are discussed in section 4, General Safety Practices. Decisions regarding PPE will be based on the potential chemical and physical hazards on the site, and measurements and observations made prior to and during work activities. Personnel involved in decontamination activities wear PPE typically one level lower than personnel working in the EZ. PPE for this activity is specified in Section 5, Personal Protective Equipments.

3.2.7 Demobilization

Demobilization involves the removal of all tools, equipment, supplies, and vehicles brought to the site. The hazards of this phase of activity are associated with heavy equipment operation and manual materials handling.

Manual materials handling may cause blisters, sore muscles, and joint and skeletal injuries; and may present eye, contusion, and laceration hazards. Heavy equipment operation presents noise and vibration hazards and hot surfaces to operators. Personnel in the vicinity of heavy equipment operation may be exposed to physical hazards resulting in fractures, contusions, and lacerations, and may be exposed to high noise levels. The work area presents slip, trip and fall hazards from scattered debris and irregular walking surfaces. Rainy weather may cause wet muddy, slick walking surfaces, and unstable soil. Freezing-weather hazards include frozen, slick, and irregular walking surfaces. Environmental hazards include plants, such as poison ivy, and poison oak; aggressive fauna, such as ticks, fleas, mosquitoes, wasps, spiders, and snakes, weather, such as sunburn, lightning, rain, and heat- or cold-related illnesses; and pathogens, such as rabies, Lyme Disease, and blood-borne pathogens.

Control procedures for these hazards are discussed in Section 4, General Safety Practices.

3.3 Chemical Hazards

The chemical hazards associated with site operations are related to inhalation, ingestion, and skin or eye contact with materials that are impacted by site COCs.

The primary COCs are PCBs, which are a series of mixtures consisting of many isomers and compounds that are usually oily liquids. PCBs have very low vapor pressures and rarely present a vapor inhalation hazard. PCBs can be inhaled if contaminated soil particles are inhaled. PCBs can also reach the skin if contaminated materials are handled. The level of PCBs in site media is low and limited to certain areas of activity. Significant exposure is not anticipated.

PCB exposure causes skin and liver effects. The skin effect is chloracne, a rash of small pimples and dark pigmentation in the areas contacted. The liver effect is acute yellow atrophy which results from long-term exposure to high levels of PCBs (exceeding the PEL of 0.5 mg/m³). Airborne concentrates of COCs may be measurable during certain activities and may require air monitoring for potentially hazardous atmospheres during such operations. Air monitoring requirements for site activities are outlined in Section 8.1, Air Monitoring.

The potential for inhalation of COCs during mobilization, air monitoring, decontamination and demobilization activities is low to moderate. The potential for inhalation of COCs during site preparation, clearing, restoration, pipe laying, dust suppression, and excavation activities is moderate. The potential for dermal contact with COCs during mobilization, air monitoring, decontamination and demobilization activities is low to moderate. The potential for dermal contact with COCs during site preparation, clearing, restoration, pipe laying, dust suppression, and excavation activities is moderate to high.

Levels of PPE is used for each work activity were selected based on the COCs at the sites at the time this plan was written and are discussed in Section 5, Personal Protective Equipment. As analytical data become available, this HASP may be amended to address additional COCs detected, and Material Safety Data Sheets (MSDSs) for the specific chemicals will be attached to this HASP.

A MSDS must accompany all materials brought to the site. No material shall be used or installed by an employee or subcontractor prior to review of the MSDS by the SS or HSS. Following review of MSDSs by the SS or HSS, copies shall be made and placed in this HASP. The location for MSDS for on-site chemicals shall be communicated to all on-site employees. All provisions of the Hazard Communication Policy and Procedures Memo and 29 CFR 1910.1200 are to be followed with regard to chemicals that are to be used during on-site activities. The MSDSs for the COCs and chemicals in use at the sites are included in Appendix M.

4.0 GENERAL SAFETY PROCEDURES

4.1 General Safety Rules

General safety rules for site activities include, but are not limited to the following:

- A copy of the HASP must be in a location at the site that is readily available to personnel and all project personnel shall review the plan prior to starting work;
- Consumption of food, beverages, chewing gum, and tobacco products is only allowed in approved areas, as identified by the SSO;
- Wash hands before eating, drinking, smoking, or using toilet facilities;
- Wear all PPE as required and stop work and replace damaged PPE immediately;
- Report all injuries, illnesses, near-misses, and unsafe conditions or work practices to the SSO;
- Maintain work areas in a neat and orderly manner. Dispose of trash, rubbish, and other debris in designated containers;
- Obey all warning signs, tags, and barriers. Do not remove any warnings unless authorized to do so;
- Use correct tool for the task;
- Use, adjust, alter, and repair equipment only if trained and authorized to do so and in accordance with the manufacturer's directions;
- Perform all work in a safety conscious manner;
- Personnel are to perform only tasks for which they have been properly trained and will advise their supervisors if they have been assigned a task for which they are not trained;
- Horseplay, roughhousing, practical jokes, etc. are strictly prohibited;
- The presence or consumption of alcoholic beverages or illicit drugs during the workday is strictly prohibited. Do not take prescription or over-the-counter drugs when assigned to tasks with the potential for absorption, inhalation, or ingestion of hazardous substances unless given written approval by an appropriate health professional;
- Remain upwind whenever possible during site activities;
- Do not enter any confined space unless properly trained and authorized to do so;
- Follow all applicable health and safety policies and procedures; and
- Use "common sense" safety practices when working with hazardous substances;
 - Do not inhale chemical odors;
 - Do not expose skin to liquids, chemicals, or soil;
 - Avoid direct contact with contaminated materials or substances; and
 - If you do get dirty or wet, clean up immediately.

4.2 Heat Stress

Heat stress is caused by a number of interacting factors including environmental conditions, clothing, workload, etc., as well as the physical and conditional characteristics of the individual. Since heat stress is one of the most common illnesses associated with heavy outdoor work conducted with direct solar load and, in particular, because wearing PPE can increase the risk of

developing heat stress, workers must be capable of recognizing the signs and symptoms of heat-related illnesses. Personnel must be aware of the types and causes of heat-related illnesses and be able to recognize the signs and symptoms of these illnesses in both themselves and their co-workers.

Heat Rash

Heat rash is one of the most common problems in hot environments. Commonly known as prickly heat, a heat rash is manifested as red papules and usually appears in areas where the clothing is restrictive. As sweating increases, these papules give rise to a prickly sensation. Prickly heat occurs in skin that is persistently wetted by unevaporated sweat, and heat rash papules may become infected if they are not treated. In most cases, heat rashes will disappear when the affected individual returns to a cool environment.

Heat Cramps

Heat cramps are usually caused by performing hard physical labor in a hot environment. These cramps have been attributed to an electrolyte imbalance caused by sweating. It is important to understand that cramps can be caused both by too much or too little salt. Cramps appear to be caused by the lack of water replenishment. Because sweat is a hypotonic solution (plus or minus 0.3% NaCl), excessive salt can build up in the body if the water lost through sweating is not replaced. Thirst cannot be relied on as a guide to the need of water; instead, water must be taken every 15 to 20 minutes in hot environments. Under extreme conditions, such as working for 6 to 8 hours in heavy protective gear, a loss of sodium may occur. Drinking commercially available carbohydrate electrolyte replacement liquids is effective in minimizing physiological disturbances during recovery.

Heat Exhaustion

Heat exhaustion occurs from increased stress on various body organs due to inadequate blood circulation, cardiovascular insufficiency, or dehydration. Signs and symptoms include pale, cool, moist skin; heavy sweating; dizziness; nausea; headache; vertigo; weakness; thirst; and giddiness. Fortunately, this condition responds readily to prompt treatment. Heat exhaustion should not be dismissed lightly, however, for several reasons. One is that the fainting associated with heat exhaustion can be dangerous because the victim may be operating machinery or controlling an operation that should not be left unattended; moreover, the victim may be injured when he or she faints. Also, the signs and symptoms seen in heat exhaustion are similar to those of heat stroke, which is a medical emergency. Workers suffering from heat exhaustion should be removed from the hot environment, given fluid replacement, and encouraged to get adequate rest.

Heat Stroke

Heat stroke is the most serious form of heat stress. Heat stroke occurs when the body's system temperature regulation fails and the body's temperature rises to critical levels. This condition is caused by a combination of highly variable factors and its occurrence is difficult to predict. Heat stroke is a medical emergency. The primary signs and symptoms of heat stroke are confusion; irrational behavior; loss of consciousness; convulsions; lack of sweating (usually); hot, dry skin; and an abnormally high body temperature, e.g., a rectal temperature of 41°C (105.8°F). If body temperature is too high, it causes death. The

elevated metabolic temperatures caused by a combination of workload and environmental heat load, both of which contributes to heat stroke, are also highly variable and difficult to predict. If a worker shows signs of possible heat stroke, professional medical treatment should be obtained immediately. The worker should be placed in a shady area and the outer clothing should be removed. The worker's skin should be wetted and air movement around the worker should be increased to improve evaporative cooling until professional methods of cooling are initiated and the seriousness of the condition can be assessed. Fluids should be replaced as soon as possible. The medical outcome of an episode of heat stroke depends on the victim's physical fitness and the timing and effectiveness of first aid treatment.

Regardless of the worker's protestations, no employee suspected of being ill from heat stroke should be sent home or left unattended unless a physician has specifically approved such an order. Proper training and preventative measures will help avert serious illness and loss of work productivity. Preventing heat stress is particularly important because once someone suffers from heat stroke or exhaustion, that person may be predisposed to additional heat injuries.

Heat Stress Safety Precautions

Heat stress monitoring and work rest cycle implantation should commence when the ambient adjusted temperature exceeds 72°F. A minimum work rest regimen and procedures for calculating ambient adjusted temperature are described in Table 4-1.

Table 4-1
Work/Rest Schedule

Temperature	Work/Rest Regime – Normal Work Gear	Work/Rest Regime – Impermeable Gear (Level D)
90°F or above	After each 45 minutes of work	After each 15 minute of work
87.5° - 90°F	After each 60 minutes of work	After each 30 minute of work
82.5° - 87.5°F	After each 90 minutes of work	After each 60 minute of work
77.5° - 82.5°F	After each 120 minutes of work	After each 90 minute of work
72.5° - 77.5°F	After each 150 minutes of work	After each 120 minute of work

In order to determine if the work rest cycles are adequate for the personnel and specific site conditions, additional monitoring of individual heat rates will be conducted during the rest cycle. To check the heart rate, count the radial pulse for 30 seconds at the beginning of the rest period. If the heart rate exceeds 110 beats per minute, shorten the next work period by one third and maintain the same rest period.

Additionally one or more of the following control measures can be used to help control heat stress and are mandatory if any site worker has a heart rate (measure immediately prior to rest period) exceeding 115 beats per minute:

- Site workers will be encouraged to drink plenty of water and electrolyte replacement fluids throughout the day.

- On-site drinking water will be kept cool (50° to 60°F).
- A work regimen that will provide adequate rest periods for cooling down will be established, as required.
- All personnel will be advised of the dangers and symptoms of heat stroke, heat exhaustion, and heat cramps.
- Cooling devices, such as vortex tubes or cooling vests, should be used when personnel must wear impermeable clothing in conditions of extreme heat.
- Employees should be instructed to monitor themselves and co-workers for signs of heat stress and to take additional breaks as necessary.
- A shaded rest area must be provided. All breaks should take place in the shaded area.
- Employees must not be assigned to other tasks during breaks.
- Employees must remove impermeable garments during rest periods. This includes white Tyvek®-type garments.

All employees must be informed of the importance of adequate rest, acclimation, and proper diet in the prevention of heat stress disorders.

4.3 Cold Stress

Cold stress normally occurs in temperatures at or below freezing, or under certain circumstances, in temperatures of 40°F. Extreme cold for a short time may cause severe injury to exposed body surfaces or result in profound generalized cooling, causing death. Areas of the body that have high surface area-to-volume ratio, such as fingers, toes, and ears are the most susceptible. Two factors influence the development of a cold weather injury: ambient temperature and the velocity of the wind. For instance, 10°F with a wind of 15 miles per hour (MPH) is equivalent in chilling effect to still air at 18°F.

Local injury resulting from cold is included in the generic term frostbite. There are several degrees of tissue damage associated with frostbite. Frostbite of the extremities can be categorized into:

- *Frost Nip or Incipient Frostbite* – characterized by sudden blanching or whitening of skin.
- *Superficial Frostbite* – skin has a waxy or white appearance and is firm to the touch, but tissue beneath is resilient.
- *Deep Frostbite* – tissues are cold, pale, solid; extremely serious injury.

Systemic hypothermia is caused by exposure to freezing or rapidly dropping temperature. It can be fatal. Its symptoms are usually exhibited in five stages: 1) shivering; 2) apathy, listlessness, sleepiness, and (sometimes) rapid cooling of the body to less than 95°F; 3) unconsciousness, glassy stare, slow pulse, and slow respiratory rate; 4) freezing of the extremities; and 5) death. Trauma sustained in freezing or sub-zero conditions requires special attention because an injured worker is predisposed to secondary cold injury. Special provisions must be made to prevent hypothermia and secondary freezing of damaged tissues in addition to providing for first aid treatment. To avoid cold stress, site personnel must wear protective clothing appropriate for the

level of cold and physical activity. In addition to protective clothing, preventative safe work practices, additional training, and warming regimens may be utilized to prevent cold stress.

Safety Precautions for Cold Stress Prevention

- For air temperatures of 0°F or less, mittens should be used to protect hands. For exposed skin, continuous exposure should not be permitted when air speed and temperature results in a wind chill temperature of -25°F.
- At air temperatures of 36°F or less, field personnel who become immersed in water or whose clothing becomes wet must be immediately provided a change of clothing and be treated for hypothermia.
- If the work is done at normal temperatures or a hot environment before entering the cold, the field personnel must ensure that their clothing is not wet as a consequence of sweating. Wet field personnel must change into dry clothes prior to entering the cold area.
- If the available clothing does not give adequate protection to prevent hypothermia or frostbite, work must be modified or suspended until adequate clothing is made available or until weather conditions improve.
- Field personnel handling evaporative liquid (e.g. gasoline, alcohol, or cleaning fluids) at air temperatures below 40°F must take special precaution to avoid soaking of clothing or gloves with the liquids because of added danger of cold injury due to evaporative cooling.

Safe Work Practices

- Direct contact between bare skin and cold surfaces (<20°F) should be avoided. Metal tool handles and/or equipment controls should be covered by thermal insulating material.
- For work performed in a wind chill temperature at or below 10°F, workers should be under constant protective observation (“buddy system”). The work rate should be established to prevent heavy sweating that will result in wet clothing. For heavy work, rest periods must be taken in heated shelters and workers should be provided with an opportunity to change into dry clothing if needed.
- Field personnel should be provided the opportunity to become accustomed to cold-weather working conditions and required protective clothing.
- Work should be arranged in such a way that sitting or standing still for long periods is minimized.
- During warming regime (rest period), field personnel should be encouraged to remove outer clothing to permit sweat evaporation or to change into dry work clothing. Dehydration, or loss of body fluids, occurs insidiously in the cold environment and may increase susceptibility to cold injury due to a significant change in blood flow to the extremities. Fluid replacement with warm, sweet drinks and soups is recommended. The intake of coffee should be limited because of diuretic and circulatory effects.

4.4 Biological Hazards

Biological hazards may include poison ivy, snakes, thorny bushes and trees, ticks, mosquitoes, and other pests.

4.4.1 Lyme Disease

General:

- The disease commonly occurs in summer and is transmitted by the bite of infected ticks. The disease is transmitted primarily by the deer tick, which is smaller and redder than the common wood tick.

Symptoms:

- rash or peculiar red spot, like a bull's eye, which expands outward in a circular manner.
- headaches, weakness, fever, a stiff neck, and swelling and pain in the joints, and eventually arthritis.
- muscle and joint aches and flu-like symptoms, but there is typically no skin rash.

Controls:

- Tuck pant legs into socks.
- Wear long sleeves.
- Use insect repellent.

4.4.2 Poisonous Plants

General:

- Poisonous plants may be present in the work area. Personnel should be alerted to its presence and instructed on methods to prevent exposure.

Controls:

- Avoid contact with the plant.
- Cover arms and hands.
- Frequently wash potential exposed skin.
- If skin contact is made, the area should be washed immediately with soap and water and observed for signs of reddening.

4.4.3 Snakes

General:

- The possibility of encountering snakes exists, specifically for personnel working in wooded/vegetated areas.

Symptoms:

- Neurotoxic effects with sensory, motor, cardiac, and respiratory difficulties.
- Swelling, edema, pain around the bite.

Controls:

- Awareness of the potential for encountering snakes and situations for encounters, such as turning over logs, etc.

- If a snake bite occurs, an attempt should be made to safely kill the snake for identification.
- The victim must be transported to the nearest hospital within 30 minutes; first aid consists of a constriction band and washing the area around the wound to remove any unabsorbed venom.

4.5 Noise

Exposure to noise over the OSHA action level can cause temporary impairment of hearing, and prolonged and repeated exposure can cause permanent damage to hearing. The risk and severity of hearing loss increases with the intensity and duration of exposure to noise. In addition to damage hearing, noise can impair voice communications, thereby increasing the risk of accidents on-site.

All personnel must wear hearing protection with a Noise Reduction Rating (NRR) of at least 20 when noise levels exceed 85 dBA. All site personnel who may be exposed to noise must also receive baseline and annual audiograms and training as to the causes and prevention of hearing loss. Noise monitoring is discussed in Section 8, Site Monitoring.

Whenever possible, equipment that does not generate excessive noise levels will be selected for this project. If the use of noisy equipment is unavoidable, barriers or increased distance will be used to minimize worker exposure to noise, if feasible.

4.6 Spill Control

All personnel must take every precaution to minimize the potential for spills during operations. All on-site personnel shall immediately report any discharge, no matter how small to the SSO. Spill control equipment and materials will be located on the site at locations that present the potential for discharge. All sorbent materials used for the cleanup of spills will be containerized and labeled appropriately. In the event of a spill, the SSO will follow the provisions in Section 11, Emergency Procedures, to contain and control released materials and to prevent their spread to off-site areas.

4.7 Sanitation

Site sanitation will be maintained according to OSHA requirements.

4.7.1 Potable Water

The following rules apply to all field operations:

- An adequate supply of potable water will be provided at the project site. Potable water will be kept away from hazardous materials or media and contaminated clothing or equipment.
- Portable containers used to dispense drinking water must be capable of being tightly closed and be equipped with a tap dispenser. Water must not be consumed directly

from the container (drinking from the tap is prohibited) nor may it be removed from the container by dripping.

- Containers used for drinking water must be clearly marked and shall not be used for any other purposes.
- Disposable drinking cups must be provided. A sanitary container for dispensing cups and a receptacle for disposing of used cups are required.

4.7.2 Sanitary Facilities

Access to facilities for washing before eating, drinking, or smoking, or alternate methods such as waterless hand-cleaner and paper towels will be provided. If permanent toilet facilities are not available, an appropriate number of portable chemical toilets will be provided.

4.8 Emergency Equipment

Adequate emergency equipment for the activities being conducted on-site and as required by applicable sections of 29 CFR 1910 and 29 CFR 1926, will be on-site prior to the commencement of project activities. Personnel will be provided with access to emergency equipment, including but not limited to the following:

- Fire extinguishers of adequate size, class, number, and location as required by applicable sections of 29 CFR 1910 and 1926;
- First aid kits of adequate size for the number of personnel on-site; and
- Emergency eyewash station and/or shower if required by operations being conducted on-site.

4.9 Lockout/Tagout Procedures

In accordance with 29 CFR 1910.147, D.R. Billings has developed a lockout/tagout program. The program establishes policies and procedures for affixing appropriate devices to energy isolating machines or equipment. The policies have been developed and are implemented to prevent unexpected start-up or release of stored energy. Specific lockout/tagout procedures for excavation equipment which will be used on-site have been developed by D.R. Billings and are located in the D.R. Billings Lockout/Tagout Program, provided as Appendix B.

4.10 Electrical Safety

Electricity may pose a particular hazard to site workers due to the use of portable electrical equipment. If wiring or other electrical work is needed, a qualified electrician must perform it.

- All electrical wiring and equipment must be a type listed by Underwriters Laboratories (UL), Factory Mutual Engineering Corporation (FM), or other recognized testing or listing agency.
- All installations must comply with the National Electrical Safety Code (NESC), the National Electrical Code (NEEC), or USCG regulations.

- Portable and semi-portable tools and equipment must be grounded by a multi-conductor cord having an identified grounding conductor and a multi-contact polarized plug-in receptacle.
- Tools protected by an approved system of double insulation, or its equivalent, need not be grounded. Double insulated tools must be distinctly marked and listed by UL or FM.
- Live parts of wiring or equipment must be guarded to prevent persons or objects from touching them.
- Electrical wire or flexible cord passing through work areas must be covered or elevated to protect it from damage by foot traffic, vehicles, sharp corners, projections, or pinching.
- All circuits must be protected from overload.
- Temporary power lines, switchboxes, receptacle boxes, metal cabinets, and enclosures around equipment must be marked to indicate the maximum operating voltage.
- Plugs and receptacles must be kept out of water unless of an approved submersible construction.
- All extension cord outlets must be equipped with ground fault circuit interrupters.
- Attachment plugs or other connectors must be equipped with a cord grip and be constructed to endure rough treatment.
- Extension cords or cables must be inspected prior to each use and replaced if worn or damaged. Cords and cables must not be fastened with staples, hung from nails, or suspended with bare wire.
- Flexible cords must be used only in continuous lengths without splice, with the exception of molded or vulcanized splices made by a qualified electrician.

4.11 Lifting Safety

Using proper lifting techniques may prevent back strain or injury. The fundamentals of proper lifting include the following:

- Consider the size, shape and weight of object to be lifted. A mechanical lifting device or additional persons must be used to lift an object if it cannot be lifted safely alone.
- The hands and the object should be free of dirt or grit that could prevent a firm grip.
- Gloves must be used and the objects inspected for metal slivers, jagged edges, burrs, or rough or slippery surfaces.
- Fingers must be kept away from points that could crush or pinch them, especially when putting an object down.
- Feet must be placed far enough apart for balance. The footing should be solid and the intended pathway should be clear.
- The load should be kept as low as possible, close to the body with knees bent.
- To lift the load, grip firmly and lift with the legs, keeping the back as straight as possible.
- A worker should not carry a load that he or she cannot see around or over.
- When putting an object down, the stance and position are identical to that for lifting; the legs are bent at the knees and the back is straight as the object is lowered.

5.0 PERSONAL PROTECTIVE EQUIPMENT

5.1 Levels of Protection

Personal protective equipment (PPE) is required to safeguard site personnel from various hazards. This section presents the various levels of protection and defines the conditions of use for each level. It is anticipated that only Level D or modified Level D protection will be required for this project. The SSO will identify the level of protection required prior to the start of each task.

5.1.1 Level D Protection

The minimum level of protection that will be required of D. R. Billings personnel at the site will be Level D, which will be worn when site conditions or air monitoring indicates no inhalation hazard exists. The following equipment will be used:

- Work clothing as prescribed by weather;
- Steel-toe work boots, meeting ANSI Z41;
- Safety glasses or goggles, meeting ANSI Z87;
- Outer gloves worn over nitrile gloves (if handling soils or groundwater);
- Hard hat, meeting ANSI Z89; and
- Hearing protection as required by SSO (if noise levels exceed 85 dBA, hearing protection with a USEPA NRR of at least 20 dBA must be used).

5.1.2 Modified Level D Protection

Modified Level D Protection will be used when airborne contaminants are not present at levels of concern, but site activities present an increased potential for skin contact with contaminated materials. Modified Level D consists of the following:

- Tyvek® coveralls (polyethylene-coated Tyvek® suits for handling liquids) when skin contact with COC-impacted media is anticipated;
- Latex/PVC overboots when contact with contaminated media is anticipated;
- Steel-toe work boots, meeting ANSI Z41;
- Safety glasses or goggles, meeting ANSI Z87;
- Face shield in addition to safety glasses or goggles when projectiles or a splash hazards exist;
- Outer gloves worn over nitrile gloves;
- Hard hat, meeting ANSI Z89; and
- Hearing protection as required by SSO (if noise levels exceed 85 dBA, hearing protection with a USEPA NRR of at least 20 dBA must be used).

5.2 Selection of PPE

Equipment for personal protection will be selected by the SSO based on the potential for contact, site conditions, ambient air quality, and the judgment of supervising site personnel and health and safety professionals. The PPE used will be chosen to be effective against the hazards present at the site.

6.0 SITE CONTROL

6.1 Site Security

No person will be allowed in the work area during site operations without first being given a site orientation and hazard briefing. This orientation will be presented by the SSO or On-Site Supervisor and will consist of a review of the HASP. This review must cover the chemical, physical, and biological hazards, protective equipment, safe work procedures, and emergency procedures for the project.

The SSO has developed and will maintain a list of authorized work personnel (Appendix C). Only personnel on the authorized persons list will be allowed to enter the work areas. A log-in/log-out sheet will be maintained at the site by SSO. Personnel must sign in and out on a log sheet as they enter and leave the work area. Anyone entering the work site, including visitors, must sign in and out at the Project Office on the Visitor's Log (Appendix D). Visitors are expected to comply with site safety requirements, including donning appropriate PPE. In the event that a visitor does not adhere to the provisions of the HASP, the visitor will be requested to leave the work area.

6.2 Certification Documents

A training and medical file must be established for the project and kept on site during all site operations. Specialty training, such as first aid/cardiopulmonary resuscitation (CPR) certificates, as well as current medical clearances for all project field personnel required to wear respirators, will be maintained within that file.

6.3 Emergency Entry and Exit

Emergency personnel who must enter the work area to respond to an emergency will be briefed of the hazards by the SSO. All site activity ceases in the event of an emergency. In the event of a site evacuation, the SSO is responsible for ensuring that all people who entered the work area have exited to the designated evacuation location.

6.4 Work Zones

Work areas are delineated as described below and are identified on-site by the SSO and On-Site Supervisor. Modifications to the zones will be identified and communicated by the SSO as necessary during the project. Construction fence, tape, cones or other warning barriers will be placed to identify the various work zones.

Exclusion Zone (EZ)

Exclusion zones (EZ) are restricted areas where work activities create a high potential for exposure. Entry into the exclusion zone is limited to authorized personnel only, equipped with the proper PPE. All employees entering the EZ must use the required PPE and must have the appropriate training and medical clearance.

Contamination Reduction Zone

The Contamination Reduction Zone (CRZ) is a transition area between the Exclusion Zone and the Support Zone. The CRZ will be established, if necessary, to perform decontamination of personnel and equipment. All personnel entering or leaving the EZ will pass through this area to prevent any cross-contamination. Tools, equipment, and machinery will be decontaminated in a specific location. The decontamination of all personnel will be performed on site adjacent to the EZ. Personal protective outer garments and respiratory protection will be removed in the CRZ and prepared for cleaning and disposal. This zone is the only appropriate corridor between the EZ and support zone.

Support Zone

The Support Zone (SZ) is a clean area outside the CRZ located to prevent employee exposure to hazardous substances. Support zones do not require special access authority, training or PPE. All areas of the site not designated as EZs or CRZs shall be considered Support Zones.

6.5 Site Inspection

The SSO will conduct a daily inspection of site activities, required equipment, and procedures to verify that the required health and safety elements are in place. The Safety Inspection Checklist (Appendix E) and Equipment Inspection Checklist (Appendix F) are used to document daily inspections.

7.0 DECONTAMINATION

Decontamination requirements vary depending on the level of PPE required at the site. Decontamination is necessary if personnel and equipment enter an Exclusion Zone (EZ) or Contaminant Reduction Zone (CRZ). The procedures detailed below provide minimum guidelines for proper decontamination.

7.1 Equipment Decontamination

All vehicles that have entered the EZ will be decontaminated prior to leaving the zone. An earthen/hay bale berm lined with polyethylene sheeting will be constructed to contain equipment to be decontaminated. The equipment will first be brushed clean then sprayed with “Simple Green”. After a period of soaking, the entire piece of equipment will be scrubbed with a brush. After scrubbing, the equipment will be washed with a high pressure hose. All dirt and water will be collected for disposal.

7.2 Personal Protective Equipment Decontamination

Where and whenever possible, single use external protective clothing must be used for work within the EZ or CRZ. This protective clothing must be disposed of in properly labeled containers. Reusable protective clothing will be rinsed at the site with detergent and water. The rinsate will be collected for disposal.

8.0 SITE MONITORING

8.1 Air Monitoring

Air monitoring will be conducted to assess potential employee exposure to airborne constituents and to dictate PPE and work controls necessary. Based on the scope of the project and the hazards identified in Section 3 of this plan, there will be three types of monitoring conducted during the project. These are discussed below.

8.1.1 Ambient Dust

Dust monitoring will be performed each day during site activity using an MIE pDR-1000 particulate monitor. The monitor, which measures respirable particulate matter, will be placed in the employee breathing zone and run continuously during site activity. Periodic readings during the day (4 times per day) will be recorded on the log presented in Appendix G. Work practices such as the application of water or other dust control measures will be implemented as needed to reduce visible and respirable dust.

8.1.2 Volatile Organics

Volatile organic compounds (VOC) will be monitored using a portable photoionization detector (PID) on an as needed basis. The Site Safety Officer (SSO) will evaluate working conditions and determine when volatile organics shall be monitored. Readings will be recorded and documented on the log presented in Appendix G.

8.1.3 Confined Space

Combustible gases and available oxygen shall be monitored whenever work activities may encounter high concentrations of volatile organics, or where the air concentrations of combustible gases or oxygen are unknown. A combustible gas/oxygen/hydrogen sulfide/carbon monoxide (LEL/O₂) meter will be used in the event of an entry into a confined space, including trenches or excavated areas which have limited ambient air dilution. The readings will be taken in the active work zone and readings from an upwind location will be obtained to establish a background reading.

8.2 Noise Monitoring

Noise monitoring may be conducted as required. Hearing protection is mandatory for all employees in noise hazardous areas, such as around heavy equipment. As a general rule, sound levels that cause speech interference at normal conversation distance should require the use of hearing protection.

8.3 Monitoring Equipment Maintenance and Calibration

All direct-reading instrumentation calibrations should be conducted under the approximate environmental conditions in which the instrument will be used. Instruments must be calibrated before and after use, noting the reading(s) and any adjustments that are necessary. All air monitoring equipment will be maintained and calibrated in accordance with the specific manufacturer's procedures. Preventative maintenance and repairs will be conducted in accordance with the respective manufacturer's procedures. When applicable, only manufacturer-trained and/or authorized personnel will be allowed to perform instrument repairs or preventative maintenance. All air monitoring data collected will be documented on the form provided in Appendix G.

If an instrument is found to be inoperative or suspected of giving erroneous readings, the SSO is responsible for immediately removing the instrument from service and obtaining a replacement unit. If the instrument is essential for safe operations during a specific activity, that activity must cease until an appropriate replacement unit is obtained. The SSO will be responsible for ensuring a replacement unit is obtained and/or repairs are initiated on the defective equipment.

8.4 Action Levels

The following table presents airborne constituent action levels that will be used to determine the procedures and protective equipment necessary based on conditions as measured at the sites.

Table 8-1
Airborne Contaminant Action Levels

Parameter	Reading	Action
Total Organic Vapors	0 ppm to ≤ 1 ppm > 1 ppm to 5 ppm ≥ 5 ppm	Normal operations; continue hourly breathing zone monitoring. Increase monitoring frequency to every 15 minutes. Stop work; investigate cause of reading.
Airborne Particulates	Visible emissions 0 to 1 mg/m ³ > 10 ppm	Cease work activities, begin wetting procedures. Normal operations. Begin soil wetting procedure. Cease operations if particulate levels do not drop below 1 mg/m ³ .
Oxygen	≤ 19.5 % > 19.5% to < 23.5% ≥ 23.5%	Stop work, evacuate confined spaces/work area, investigate cause of reading, and ventilate area. Normal operations. Stop work, evacuate confined spaces/work area, investigate causes of reading, and ventilate area.
Carbon Monoxide	0 ppm to ≤ 20 ppm > 20 ppm	Normal operations. Stop work, evacuate confined spaces/work area, investigate causes of reading, and ventilate area.
Hydrogen Sulfide	0 ppm to ≤ 5 ppm > 5 ppm	Normal operations. Stop work, evacuate confined spaces/work area, investigate causes of reading, and ventilate area.
Flammable Vapors (LEL)	< 10% LEL ≥ 10% LEL	Normal operations. Stop work, ventilate area; investigate sources of vapors.

9.0 EMPLOYEE TRAINING

9.1 General

All on-site personnel involved in the project have been trained in accordance with the OSHA 40-hour Hazardous Waste Training and annual 8 hour refresher training as set forth in 29 CFR 1910.120, Hazardous Waste Operations (HAZWOPER). Key personnel responsible for supervision and on-site management relative to site operations are provided an additional 8 hours of training. Copies of current 40-Hour Certifications are presented in Appendix H.

9.2 Site-Specific Training

All on-site employees are provided with initial site-specific job training by the D.R. Billings Site Safety Officer, On-Site Supervisor or Project Manager. This training provides specific job and task training, in addition to safety training which comprises of a complete review of the requirements of the HASP, a review of the job hazards, the operations and safety procedures, PPE requirements, and site emergency procedures.

9.3 Daily Safety Meetings

The Site Safety Officer or On-Site Supervisor will conduct daily safety meetings for all on-site employees. The meetings will cover the daily activities, potential risks, procedures to manage the risks, required PPE and operating procedures, and emergency response review. The meetings will be conducted prior to the beginning of each workday. Additional safety meetings will be scheduled when new tasks are assigned. All safety meetings will be documented on the Site Safety Meeting Log, Appendix I.

9.4 First Aid and CPR

At least one employee trained in first aid/CPR will be assigned during each work shift. Refresher training in first aid and CPR is required to keep the certificate current. These individuals must also receive training regarding the precautions and protective equipment necessary to protect against exposure to blood-borne pathogens. Copies of current First Aid and CPR certification are presented in Appendix J.

10.0 EMERGENCY PROCEDURES

10.1 General

The Site Safety Officer (SSO) has primary responsibility for evaluating, responding to and correcting emergency situations on the site. The SSO is also responsible for evaluating the site to assess the potential for fire, contaminant release, or other catastrophic event and is responsible for communicating the emergency procedures to employees. The SSO is the contact person if any employee identifies an actual or potential emergency situation. On a regular basis, the SSO will review site operations to assess hazards, and will review emergency response procedures with employees.

The SSO will attend and participate in any planning meetings required by GE or local emergency management departments for the purposes of coordinating emergency response to the project site and/or for communicating D.R. Billings procedural information.

Prior to conducting work on the site, the SSO will establish an evacuation location for use in the event of a site evacuation. The location may change as progress is made at the site. The SSO will communicate to all employees the evacuation location, the evacuation plan and the mechanism for notifying employees of an evacuation.

In the event of any emergency, GE Plant Protection is to be contacted to respond and/or coordinate response activities.

10.2 Emergency Response

Following the identification of an emergency, the SSO is responsible for the following:

- Evaluate the incident and assess the need for assistance;
- Contact GE Plant Protection;
- Ensure the D.R. Billings Project Manager and GE Personnel (as necessary) are notified promptly of the incident; and
- Take appropriate measures to stabilize the incident scene under the direction of GE Plant Protection.
- Following any incident, the SSO will assist provide assistance as necessary to incident investigation efforts by GE or outside agencies.

11.2.1 Fire

Each piece of heavy equipment is equipped with a fire extinguisher. In the event of a very small fire, site personnel will attempt to extinguish the fire with available extinguishers, if safe to do so. If the fire cannot be easily extinguished with one extinguisher, GE Plant Protection will be immediately contacted to direct fire fighting response activities.

10.2.2 Spill Response

In the event of an unintentional discharge of materials, including equipment fluid (e.g. hydraulic oil, gasoline, diesel oil), employees will take the following actions:

- Immediately notify the SSO;
- Evacuate immediate area of release;
- Immediately contact GE Plant Protection;
- Assist GE Plant Protection response activities if directed to do so.

Following a release, the SSO will provide assistance to GE Plant Protection, as requested, to help evaluate the release, including the type of material, the volume, the location of the release and will determine the necessary control procedures, including air monitoring, PPE, clean-up requirements and material disposal requirements.

10.2.3 Medical Emergency

All employee injuries must be promptly reported to the SSO. If first aid is warranted, trained personnel will provide first aid. If an injury is more extensive and requires treatment beyond first aid, the SSO will immediately contact GE Plant Protection to assist in coordinating medical attention.

10.3 Reporting Injuries and Illnesses

Injuries and illness, however minor, will be report to the SSO immediately. The SSO will complete an injury report and submit it to the Project Manager within 24 hours. The PM will notify GE of the incident within 24 hours and submit a written report to GE within 48 hours of the incident. Additionally, the D.R. Billings OSHA 200 log will be updated to include the pertinent information.

APPENDIX A
SITE MAPS

APPENDIX B

LOCKOUT/TAGOUT PROCEDURES

D. R. Billings Inc. Lockout/Tagout Procedure
Samsung Excavators (S1, S2), John Deere Excavators (JDX2, JDX3, JDR)
And Komatsu Excavator (PC300)

1. MACHINE IDENTIFICATION

Samsung, John Deere, and Komatsu Excavators

2. OPERATOR CONTROLS

Levers Control

3. ENERGY SOURCES

Mechanical	A
Hydraulic	B

4. SHUTDOWN PROCEDURES

NOTIFY ALL AFFECTED PERSONNEL

- A. Disconnect battery and lock battery cover with built in lock.
- B. Be sure bucket is on ground or in secure position.

TYPE OF LOCK: Built in locks

5. LOCATION OF ENERGY ISOLATING MEANS

Located on right side of machine - in battery box.

6. STARTUP PROCEDURES

Check machines to make sure in proper running condition - are cleared, all nonessential items removed, etc...

Check to make sure in neutral.

Unlock battery box and reconnect battery.

NOTIFY ALL AFFECTED EMPLOYEES.

7. ENERGY SOURCE ACTIVATED

Engine via battery.

- 1. DUDLEY R. BILLINGS**
- 2. DEREK CHARBONNEAU**
- 3. THOMAS FUSCIENTE**
- 4. RICHARD GEORGE, JR.**
- 5. WILLIAM GODDARD, JR.**
- 6. STEPHEN LABRIE**
- 7. PHILIP LOMBARDI**
- 8. BRYAN MCMILLIAN**
- 9. GLENN NEWTON**
- 10. WILLIAM O'BRYAN, JR.**
- 11. KEVIN OSWALD**
- 12. GERALD PALMER, JR.**
- 13. ZACHARY PORIO**

APPENDIX D
VISITOR'S LOG

APPENDIX E

SAFETY INSPECTION CHECKLIST

D.R. BILLINGS, INC.
Safety Inspection Checklist

Inspector: _____
 Date: _____

Location: _____

Safety Item	OK?	Needs Attn?	Notes
Personal protective equipment			
Safety glasses/goggles/face shields			
Gloves			
Boots			
Protective clothing			
Safety Equipment			
Eye protection			
Hearing protection			
Head protection			
Skin protection			
Respiratory protection			
Electrical			
Lighting			
Grounding			
Insulation			
Loose wires			
Emergency lighting			
Makeshift wiring			
Approved equipment for hazardous classification			
First Aid			
Eyewash station			
First Aid kit			
Adequately trained personnel			
Employee Instruction			
Protective equipment			
Proper lifting procedures			
Smoking area			
Evacuation procedures			
Decontamination			
Horseplay			
Rest area			
Lunch area			

Safety Item	OK?	Needs Attn?	Notes
Materials Handling Equipment			
Cables, ropes, chains, etc.			
Front-end loader			
Crane			
Crusher/Shredder			
Screen			
Housekeeping			
Tripping hazards			
Trash			
Loose material			
Storage of flammable materials			
Leaks			
Unobstructed access			
Sparks			
Overhead/Underground Utilities			
Electric Power Line			
Natural Gas Line			
Telephone Line			
Water Line			
Sewer Line			
Steam Line			
Drain Line			
Underground Tank			
Underground Cable			
Overhead Power Line			
Overhead Product Line			
Lockout/Tagout Procedures			
Health And Safety Plan On Site			

APPENDIX D
VISITOR'S LOG

APPENDIX E

SAFETY INSPECTION CHECKLIST

D.R. BILLINGS, INC.
Safety Inspection Checklist

Inspector: _____
 Date: _____

Location: _____

Safety Item	OK?	Needs Attn?	Notes
Personal protective equipment			
Safety glasses/goggles/face shields			
Gloves			
Boots			
Protective clothing			
Safety Equipment			
Eye protection			
Hearing protection			
Head protection			
Skin protection			
Respiratory protection			
Electrical			
Lighting			
Grounding			
Insulation			
Loose wires			
Emergency lighting			
Makeshift wiring			
Approved equipment for hazardous classification			
First Aid			
Eyewash station			
First Aid kit			
Adequately trained personnel			
Employee Instruction			
Protective equipment			
Proper lifting procedures			
Smoking area			
Evacuation procedures			
Decontamination			
Horseplay			
Rest area			
Lunch area			

Safety Item	OK?	Needs Attn?	Notes
Materials Handling Equipment			
Cables, ropes, chains, etc.			
Front-end loader			
Crane			
Crusher/Shredder			
Screen			
Housekeeping			
Tripping hazards			
Trash			
Loose material			
Storage of flammable materials			
Leaks			
Unobstructed access			
Sparks			
Overhead/Underground Utilities			
Electric Power Line			
Natural Gas Line			
Telephone Line			
Water Line			
Sewer Line			
Steam Line			
Drain Line			
Underground Tank			
Underground Cable			
Overhead Power Line			
Overhead Product Line			
Lockout/Tagout Procedures			
Health And Safety Plan On Site			

APPENDIX F
EQUIPMENT INSPECTION LIST

D.R. BILLINGS, INC. Equipment Inspection Checklist

Inspector: _____

Location: _____

Date: _____

Equipment	Safety Item	OK?	Needs Attn?	Notes
Backhoe # ____	Cab glass			
	Back up signal			
	Brakes			
	Hydraulic			
	Seatbelt			
Bulldozer # ____	Cab glass			
	Back up signal			
	Parking brake			
	Hydraulic			
	Seatbelt			
Loader # ____	Cab glass			
	Back up signal			
	Parking brake			
	Brakes			
	Hydraulic			
	Heater			
	Defroster			
	Seatbelt			
Compactor # ____	Cab glass			
	Back up signal			
	Parking brake			
	Brakes			
	Hydraulic			
	Heater			
	Defroster			
	Seatbelt			

APPENDIX G
AIR MONITORING LOGS

APPENDIX H

EMPLOYEE 40-HOUR TRAINING CERTIFICATIONS



Berkshire Occupational Health
at Berkshire Health Systems, Inc.

www.berkshirehealthsystems.org

413-447-2684

**REPORT TO EMPLOYER AND EMPLOYEE
OF HAZARDOUS MATERIAL (HAZMAT) SURVEILLANCE EXAM AND/OR
RESPIRATOR MEDICAL CLEARANCE**

EMPLOYEE Dudley Billings EXAM DATE 10/23/07

EMPLOYER DR Billings

POTENTIAL EXPOSURE TO:	
<input type="checkbox"/> LEAD	<input type="checkbox"/> ORGANIC SOLVENTS
<input type="checkbox"/> ASBESTOS	<input checked="" type="checkbox"/> HAZMAT
<input type="checkbox"/> OTHERS (PLEASE LIST) <u>PCB's</u>	
CONTRIBUTING EXPOSURE HISTORY:	
CONTRIBUTING PHYSICAL FINDINGS:	
GUIACS: <u>+</u>	
BIOLOGICAL MONITORING (BLOOD/URINE) PERFORMED: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
RESULTS: <u>glucose 119</u> <u>cbc - wnl</u> <u>pcb - none detected</u> <u>u/a - wnl</u>	
CHEST X-RAY PERFORMED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	SPIROMETRY PERFORMED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
RESULTS:	RESULTS:
ASSESSMENT	
RESPIRATOR CLEARANCE FOR _____ (TYPE)	HAZMAT CLEARANCE
<input type="checkbox"/> MEDICALLY QUALIFIED TO WEAR RESPIRATOR WITHOUT RESTRICTION	<input checked="" type="checkbox"/> MEDICALLY QUALIFIED TO WORK AROUND THE ABOVE HAZARDOUS MATERIAL WITH APPROPRIATE PROTECTION AS DEFINED BY OSHA REGULATIONS
<input type="checkbox"/> NEEDS EVALUATION ANNUALLY	<input type="checkbox"/> NOT MEDICALLY QUALIFIED TO WORK AROUND THE ABOVE HAZARDOUS MATERIAL
<input type="checkbox"/> NOT MEDICALLY QUALIFIED TO WEAR A RESPIRATOR AS PROPOSED	
<input type="checkbox"/> MAY WEAR THE RESPIRATOR WITH RESTRICTIONS (SEE BELOW)	
COMMENT:	
MEDICAL PROVIDER: <u>Susan Smith ap</u>	DATE: <u>11-6-07</u>



Berkshire Occupational Health
at Berkshire Health Systems, Inc.

www.berkshirehealthsystems.org

413-447-2684

**REPORT TO EMPLOYER AND EMPLOYEE
OF HAZARDOUS MATERIAL (HAZMAT) SURVEILLANCE EXAM AND/OR
RESPIRATOR MEDICAL CLEARANCE**

EMPLOYEE Bryan McMillan EXAM DATE 10/23/07

EMPLOYER DR Billings

POTENTIAL EXPOSURE TO:	
<input type="checkbox"/> LEAD	<input type="checkbox"/> ORGANIC SOLVENTS
<input type="checkbox"/> ASBESTOS	<input checked="" type="checkbox"/> HAZMAT
<input checked="" type="checkbox"/> OTHERS (PLEASE LIST) <u>PCBs</u>	
CONTRIBUTING EXPOSURE HISTORY: <u>chewing tobacco</u>	
CONTRIBUTING PHYSICAL FINDINGS:	
GUIACS:	
BIOLOGICAL MONITORING (BLOOD/URINE) PERFORMED: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
RESULTS: <u>Negative</u>	
CHEST X-RAY PERFORMED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	SPIROMETRY PERFORMED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
RESULTS:	RESULTS:
ASSESSMENT	
RESPIRATOR CLEARANCE FOR _____ (TYPE)	HAZMAT CLEARANCE
<input type="checkbox"/> MEDICALLY QUALIFIED TO WEAR RESPIRATOR WITHOUT RESTRICTION	<input checked="" type="checkbox"/> MEDICALLY QUALIFIED TO WORK AROUND THE ABOVE HAZARDOUS MATERIAL WITH APPROPRIATE PROTECTION AS DEFINED BY OSHA REGULATIONS
<input type="checkbox"/> NEEDS EVALUATION ANNUALLY	<input type="checkbox"/> NOT MEDICALLY QUALIFIED TO WORK AROUND THE ABOVE HAZARDOUS MATERIAL
<input type="checkbox"/> NOT MEDICALLY QUALIFIED TO WEAR A RESPIRATOR AS PROPOSED	
<input type="checkbox"/> MAY WEAR THE RESPIRATOR WITH RESTRICTIONS (SEE BELOW)	
COMMENT:	
MEDICAL PROVIDER: <u>[Signature]</u>	DATE: <u>11/5/07</u>



Berkshire Occupational Health
at Berkshire Health Systems, Inc.

www.berkshirehealthsystems.org

413-447-2684

**REPORT TO EMPLOYER AND EMPLOYEE
OF HAZARDOUS MATERIAL (HAZMAT) SURVEILLANCE EXAM AND/OR
RESPIRATOR MEDICAL CLEARANCE**

EMPLOYEE WILLIAM GODDARD EXAM DATE 10/23/07

EMPLOYER D. R. BILLINGS

POTENTIAL EXPOSURE TO:	
<input type="checkbox"/> LEAD	<input type="checkbox"/> ORGANIC SOLVENTS
<input type="checkbox"/> ASBESTOS	<input checked="" type="checkbox"/> HAZMAT
<input checked="" type="checkbox"/> OTHERS (PLEASE LIST) <u>PBIS</u>	
CONTRIBUTING EXPOSURE HISTORY:	
CONTRIBUTING PHYSICAL FINDINGS:	
GUIACS:	
BIOLOGICAL MONITORING (BLOOD/URINE) PERFORMED: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
RESULTS: <u>Negative / normal</u>	
CHEST X-RAY PERFORMED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	SPIROMETRY PERFORMED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
RESULTS:	RESULTS:
ASSESSMENT	
RESPIRATOR CLEARANCE FOR _____ (TYPE)	HAZMAT CLEARANCE
<input type="checkbox"/> MEDICALLY QUALIFIED TO WEAR RESPIRATOR WITHOUT RESTRICTION	<input checked="" type="checkbox"/> MEDICALLY QUALIFIED TO WORK AROUND THE ABOVE HAZARDOUS MATERIAL WITH APPROPRIATE PROTECTION AS DEFINED BY OSHA REGULATIONS
<input type="checkbox"/> NEEDS EVALUATION ANNUALLY	<input type="checkbox"/> NOT MEDICALLY QUALIFIED TO WORK AROUND THE ABOVE HAZARDOUS MATERIAL
<input type="checkbox"/> NOT MEDICALLY QUALIFIED TO WEAR A RESPIRATOR AS PROPOSED	
<input type="checkbox"/> MAY WEAR THE RESPIRATOR WITH RESTRICTIONS (SEE BELOW)	
COMMENT:	
MEDICAL PROVIDER: <u>[Signature]</u>	DATE: <u>11/5/07</u>



Berkshire Occupational Health
at Berkshire Health Systems, Inc.

www.berkshirehealthsystems.org

413-447-2684

**REPORT TO EMPLOYER AND EMPLOYEE
OF HAZARDOUS MATERIAL (HAZMAT) SURVEILLANCE EXAM AND/OR
RESPIRATOR MEDICAL CLEARANCE**

EMPLOYEE Glenn NEWTON EXAM DATE 10/23/07

EMPLOYER DR Billings

POTENTIAL EXPOSURE TO:	
<input type="checkbox"/> LEAD	<input type="checkbox"/> ORGANIC SOLVENTS
<input type="checkbox"/> ASBESTOS	<input type="checkbox"/> HAZMAT
<input type="checkbox"/> OTHERS (PLEASE LIST)	
CONTRIBUTING EXPOSURE HISTORY: <u>PCB Work in Past</u>	
CONTRIBUTING PHYSICAL FINDINGS: <u>Ø</u>	
GUIACS:	
BIOLOGICAL MONITORING (BLOOD/URINE) PERFORMED: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
RESULTS: <u>OHC</u> <u>Micro UA</u> <u>CBC</u> <u>PCB</u>	
CHEST X-RAY PERFORMED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	SPIROMETRY PERFORMED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
RESULTS:	RESULTS:
ASSESSMENT	
RESPIRATOR CLEARANCE FOR _____ (TYPE)	HAZMAT CLEARANCE
<input type="checkbox"/> MEDICALLY QUALIFIED TO WEAR RESPIRATOR WITHOUT RESTRICTION	<input checked="" type="checkbox"/> MEDICALLY QUALIFIED TO WORK AROUND THE ABOVE HAZARDOUS MATERIAL WITH APPROPRIATE PROTECTION AS DEFINED BY OSHA REGULATIONS
<input type="checkbox"/> NEEDS EVALUATION ANNUALLY	<input type="checkbox"/> NOT MEDICALLY QUALIFIED TO WORK AROUND THE ABOVE HAZARDOUS MATERIAL
<input type="checkbox"/> NOT MEDICALLY QUALIFIED TO WEAR A RESPIRATOR AS PROPOSED	
<input type="checkbox"/> MAY WEAR THE RESPIRATOR WITH RESTRICTIONS (SEE BELOW)	
COMMENT:	
MEDICAL PROVIDER: <u>[Signature]</u>	DATE: <u>10/23/07</u>



Berkshire Occupational Health
at Berkshire Health Systems, Inc.

www.berkshirehealthsystems.org

413-447-2684

**REPORT TO EMPLOYER AND EMPLOYEE
OF HAZARDOUS MATERIAL (HAZMAT) SURVEILLANCE EXAM AND/OR
RESPIRATOR MEDICAL CLEARANCE**

EMPLOYEE THOMAS FRUSCIENTE EXAM DATE 10/3/07

EMPLOYER D.R. BILLINGS

POTENTIAL EXPOSURE TO:	
<input checked="" type="checkbox"/> LEAD	<input type="checkbox"/> ORGANIC SOLVENTS
<input type="checkbox"/> ASBESTOS	<input checked="" type="checkbox"/> HAZMAT
<input type="checkbox"/> OTHERS (PLEASE LIST) <u>PCB's</u>	
CONTRIBUTING EXPOSURE HISTORY: <u>Confined spaces</u>	
CONTRIBUTING PHYSICAL FINDINGS: <u>Ø</u>	
GUIACS: <u>Ø</u>	
BIOLOGICAL MONITORING (BLOOD/URINE) PERFORMED: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
RESULTS: <u>PCB blood level - none detected</u> <u>U/A Ø CPE-WU elevated uric acid</u>	
CHEST X-RAY PERFORMED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	SPIROMETRY PERFORMED: <input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/> NO
RESULTS:	RESULTS:
ASSESSMENT	
RESPIRATOR CLEARANCE FOR _____ (TYPE)	HAZMAT CLEARANCE
<input type="checkbox"/> MEDICALLY QUALIFIED TO WEAR RESPIRATOR WITHOUT RESTRICTION	<input checked="" type="checkbox"/> MEDICALLY QUALIFIED TO WORK AROUND THE ABOVE HAZARDOUS MATERIAL WITH APPROPRIATE PROTECTION AS DEFINED BY OSHA REGULATIONS
<input type="checkbox"/> NEEDS EVALUATION ANNUALLY	<input type="checkbox"/> NOT MEDICALLY QUALIFIED TO WORK AROUND THE ABOVE HAZARDOUS MATERIAL
<input type="checkbox"/> NOT MEDICALLY QUALIFIED TO WEAR A RESPIRATOR AS PROPOSED	
<input type="checkbox"/> MAY WEAR THE RESPIRATOR WITH RESTRICTIONS (SEE BELOW)	
COMMENT:	
MEDICAL PROVIDER: <u>Juan Smith MD</u>	DATE: <u>11.9.07</u>



Berkshire Occupational Health
at Berkshire Health Systems, Inc.

www.berkshirehealthsystems.org

413-447-2684

**REPORT TO EMPLOYER AND EMPLOYEE
OF HAZARDOUS MATERIAL (HAZMAT) SURVEILLANCE EXAM AND/OR
RESPIRATOR MEDICAL CLEARANCE**

EMPLOYEE Stephan Labrie EXAM DATE 10/23/07

EMPLOYER DR Billings

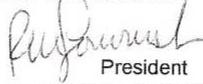
POTENTIAL EXPOSURE TO:	
<input type="checkbox"/> LEAD	<input type="checkbox"/> ORGANIC SOLVENTS
<input type="checkbox"/> ASBESTOS	<input checked="" type="checkbox"/> HAZMAT
<input checked="" type="checkbox"/> OTHERS (PLEASE LIST) <u>Dust</u>	
CONTRIBUTING EXPOSURE HISTORY: <u>tobacco smoking</u>	
CONTRIBUTING PHYSICAL FINDINGS:	
GUIACS:	
BIOLOGICAL MONITORING (BLOOD/URINE) PERFORMED: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
RESULTS: <u>Nondetectable PCB levels</u>	
CHEST X-RAY PERFORMED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	SPIROMETRY PERFORMED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
RESULTS:	RESULTS:
ASSESSMENT	
RESPIRATOR CLEARANCE FOR _____ (TYPE)	HAZMAT CLEARANCE
<input type="checkbox"/> MEDICALLY QUALIFIED TO WEAR RESPIRATOR WITHOUT RESTRICTION	<input checked="" type="checkbox"/> MEDICALLY QUALIFIED TO WORK AROUND THE ABOVE HAZARDOUS MATERIAL WITH APPROPRIATE PROTECTION AS DEFINED BY OSHA REGULATIONS
<input type="checkbox"/> NEEDS EVALUATION ANNUALLY	
<input type="checkbox"/> NOT MEDICALLY QUALIFIED TO WEAR A RESPIRATOR AS PROPOSED	<input type="checkbox"/> NOT MEDICALLY QUALIFIED TO WORK AROUND THE ABOVE HAZARDOUS MATERIAL
<input type="checkbox"/> MAY WEAR THE RESPIRATOR WITH RESTRICTIONS (SEE BELOW)	
COMMENT:	
MEDICAL PROVIDER: <u>[Signature]</u>	DATE: <u>11/9/07</u>

Emergency Response Technologies, Inc.
Safety Training & Consulting

Dudley R. Billings

has completed OSHA Compliance Training in:
Hazardous Waste Site Operations: 29 CFR 1910.120
Confined Space Entry: 29 CFR 1910.146

Expires: 2/2009

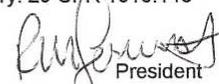

President

Emergency Response Technologies, Inc.
Safety Training & Consulting

Bryan McMillan

has completed OSHA Compliance Training in:
Hazardous Waste Site Operations: 29 CFR 1910.120
Confined Space Entry: 29 CFR 1910.146

Expires: 2/2009

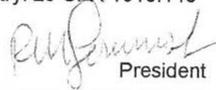

President

Emergency Response Technologies, Inc.
Safety Training & Consulting

Stephen LaBrie

has completed OSHA Compliance Training in:
Hazardous Waste Site Operations: 29 CFR 1910.120
Confined Space Entry: 29 CFR 1910.146

Expires: 2/2009

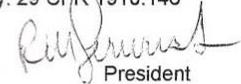

President

Emergency Response Technologies, Inc.
Safety Training & Consulting

William M. Goddard Jr.

has completed OSHA Compliance Training in:
Hazardous Waste Site Operations: 29 CFR 1910.120
Confined Space Entry: 29 CFR 1910.146

Expires: 2/2009


President

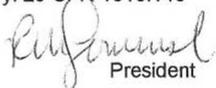
FEED THIS END
↓

Emergency Response Technologies, Inc.
Safety Training & Consulting

Thomas Frusciente

has completed OSHA Compliance Training in:
Hazardous Waste Site Operations: 29 CFR 1910.120
Confined Space Entry: 29 CFR 1910.146

Expires: 2/2009

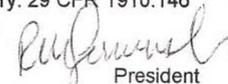

President

Emergency Response Technologies, Inc.
Safety Training & Consulting

Derek J. Charbonneau

has completed OSHA Compliance Training in:
Hazardous Waste Site Operations: 29 CFR 1910.120
Confined Space Entry: 29 CFR 1910.146

Expires: 2/2009


President

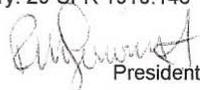
↑
FEED THIS END

Emergency Response Technologies, Inc.
Safety Training & Consulting

Glenn Newton

has completed OSHA Compliance Training in:
Hazardous Waste Site Operations: 29 CFR 1910.120
Confined Space Entry: 29 CFR 1910.146

Expires: 2/2009


President

↑
SEPARATION FOR EASY INFORMATION

Emergency Response Technologies, Inc.
Safety Training and Consulting

This is to certify that

Bryan McMillan

has completed the following training program

Hazardous Waste Site Operations

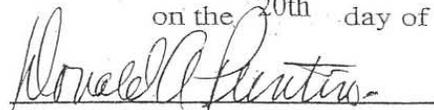
40 Hour Program

meeting OSHA 29 CFR 1910.120

In testimony whereof, this certificate is given

on the 20th day of

July, 2000



D.R. Billings, Inc.



Emergency Response Technologies, Inc.

Emergency Response Technologies, Inc.
Safety Training and Consulting

This is to certify that

Stephen A. LaBrie

has completed the following training program

Hazardous Waste Site Operations

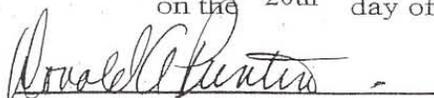
40 Hour Program

meeting OSHA 29 CFR 1910.120

In testimony whereof, this certificate is given

on the 20th day of

July, 2000



D.R. Billings, Inc.



Emergency Response Technologies, Inc.

Emergency Response Technologies, Inc.
Safety Training and Consulting

Be it Known that,

William M. Goddard Jr.

has completed the following training program:

Hazardous Waste Site Operations

40 Hour Certification

Meeting OSHA 29 CFR 1910.120

In testimony whereof, this certificate is given on:

October 26, 2007


Emergency Response Technologies, Inc.

Emergency Response Technologies, Inc.
Safety Training and Consulting

Be it Known that,

Glenn Newton

has completed the following training program:

Hazardous Waste Site Operations

40 Hour Certification

Meeting OSHA 29 CFR 1910.120

In testimony whereof, this certificate is given on:

October 26, 2007


Emergency Response Technologies, Inc.

Emergency Response Technologies, Inc.
Safety Training and Consulting

Be it Known that,

Derek Charbonneau

has completed the following training program:

Hazardous Waste Site Operations
40-Hour Certification
Meeting OSHA 29 CFR 1910.120

In testimony whereof, this certificate is given on:

October 26, 2007


Emergency Response Technologies, Inc.

Emergency Response Technologies, Inc.
Safety Training and Consulting

Be it Known that,

Tom Frusciente

has completed the following training program:

Hazardous Waste Site Operations
40-Hour Certification
Meeting OSHA 29 CFR 1910.120

In testimony whereof, this certificate is given on:

October 26, 2007


Emergency Response Technologies, Inc.

Emergency Response Technologies, Inc.
Safety Training and Consulting

Be it Known that,

Dudley R. Billings

has completed the following training program:

Hazardous Waste Site Operations
40-Hour Certification
Meeting OSHA 29 CFR 1910.120

In testimony whereof, this certificate is given on:

October 26, 2007


Emergency Response Technologies, Inc.

APPENDIX I

SAFETY MEETING LOG

D.R. BILLINGS, INC.
SAFETY MEETING LOG

Meeting Conducted by _____ Date: _____

Project Location: _____

1. Work Summary	
2. Physical/Chemical Hazards	
3. Protective Equipment	
4. Emergency Procedures	
5. Signature of Attendees	

APPENDIX J

FIRST AID AND CPR CERTIFICATIONS



Together, we can save a life

This recognizes that
 has completed the requirements for
1503381
 conducted by
 Date completed
 The American Red Cross recognizes this certificate
 as valid for _____ year(s) from completion date.



Together, we can save a life

This recognizes that
Todd Andrews
 has completed the requirements for
CPR--Adult
 conducted by
Mark J Bentz
 Date completed 2/28/2008
 The American Red Cross recognizes this certificate
 as valid for 1 year(s) from completion date.



Together, we can save a life

This recognizes that
Jim Chivers
 has completed the requirements for
CPR--Adult
 conducted by
Mark J Bentz
 Date completed 2/28/2008
 The American Red Cross recognizes this certificate
 as valid for 1 year(s) from completion date.



Together, we can save a life

This recognizes that
Mary Anne Cronin
 has completed the requirements for
CPR--Adult
 conducted by
Mark J Bentz
 Date completed 2/28/2008
 The American Red Cross recognizes this certificate
 as valid for 1 year(s) from completion date.



Together, we can save a life

This recognizes that
Thomas Frusciente
 has completed the requirements for
CPR--Adult
 conducted by
Mark J Bentz
 Date completed 2/28/2008
 The American Red Cross recognizes this certificate
 as valid for 1 year(s) from completion date.



Together, we can save a life

This recognizes that
William M Goddard Jr
 has completed the requirements for
CPR--Adult
 conducted by
Mark J Bentz
 Date completed 2/28/2008
 The American Red Cross recognizes this certificate
 as valid for 1 year(s) from completion date.



Together, we can save a life

This recognizes that
Philip Kriatiak
 has completed the requirements for
CPR--Adult
 conducted by
Mark J Bentz
 Date completed 2/28/2008
 The American Red Cross recognizes this certificate
 as valid for 1 year(s) from completion date.



Together, we can save a life

This recognizes that
Stephen Labrie
 has completed the requirements for
CPR--Adult
 conducted by
Mark J Bentz
 Date completed 2/28/2008
 The American Red Cross recognizes this certificate
 as valid for 1 year(s) from completion date.



Together, we can save a life

This recognizes that
Bryan McMillan
 has completed the requirements for
CPR--Adult
 conducted by
Mark J Bentz
 Date completed 2/28/2008
 The American Red Cross recognizes this certificate
 as valid for 1 year(s) from completion date.



Together, we can save a life

This recognizes that
Eric Mirke
 has completed the requirements for
CPR--Adult
 conducted by
Mark J Bentz
 Date completed 2/28/2008
 The American Red Cross recognizes this certificate
 as valid for 1 year(s) from completion date.



Together, we can save a life

This recognizes that
Glen Newton
 has completed the requirements for
CPR--Adult
 conducted by
Mark J Bentz
 Date completed 2/28/2008
 The American Red Cross recognizes this certificate
 as valid for 1 year(s) from completion date.



Together, we can save a life

This recognizes that
Kevin Oswald
 has completed the requirements for
CPR--Adult
 conducted by
Mark J Bentz
 Date completed 2/28/2008
 The American Red Cross recognizes this certificate
 as valid for 1 year(s) from completion date.



Together, we can save a life

This recognizes that
Zachary Porio
 has completed the requirements for
CPR--Adult
 conducted by
Mark J Bentz
 Date completed 2/28/2008
 The American Red Cross recognizes this certificate
 as valid for 1 year(s) from completion date.



Together, we can save a life

This recognizes that
Billy O'Bryan
 has completed the requirements for
CPR--Adult
 conducted by
Mark J Bentz
 Date completed 2/28/2008
 The American Red Cross recognizes this certificate
 as valid for 1 year(s) from completion date.



Together, we can save a life

This recognizes that
Jerry Palmer
 has completed the requirements for
CPR--Adult
 conducted by
Mark J Bentz
 Date completed 2/28/2008
 The American Red Cross recognizes this certificate
 as valid for 1 year(s) from completion date.



Together, we can save a life

This recognizes that
Christopher Putin
 has completed the requirements for
CPR--Adult
 conducted by
Mark J Bentz
 Date completed 2/28/2008
 The American Red Cross recognizes this certificate
 as valid for 1 year(s) from completion date.

APPENDIX K

UNDERGROUND/OVERHEAD UTILITY CHECKLIST

D.R.BILLINGS. INC.

OVERHEAD/UNDERGROUND UTILITY CHECKLIST

DATE: _____

	TYPE	REVIEWED	NONE	COMMENTS
OVERHEAD				
	ELECTRIC			
	TELEPHONE			
	TV			
UNDERGROUND				
	ELECTRIC			
	SEWER			
	WATER			
	GAS			
	TV			
	STORM DRAIN			
	PROCESSED PIPING			
	OTHER			

APPENDIX L

DAILY/PERIODIC EXCAVATION FORM

TRENCHING LOG

Project:	Date:
Weather:	Signature:

Was ONE CALL contacted:	Yes <input type="checkbox"/> No <input type="checkbox"/>
Protective system: Trench Shield (box) <input type="checkbox"/> Wood Shoring <input type="checkbox"/> Sloping <input type="checkbox"/> Other <input type="checkbox"/>	
Purpose for trench: Drainage <input type="checkbox"/> Sewer <input type="checkbox"/> Water <input type="checkbox"/> Gas <input type="checkbox"/> Other <input type="checkbox"/>	
Were visual soil tests made? If Yes, what type?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Were manual soil tests made? If Yes, what type?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Type of soil: Stable rock <input type="checkbox"/> Type A <input type="checkbox"/> Type B <input type="checkbox"/> Type C <input type="checkbox"/>	
Are surface obstacles present? If Yes, what type?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Water conditions: Wet <input type="checkbox"/> Dry <input type="checkbox"/> Submerged <input type="checkbox"/>	
Do hazardous atmospheres exist? <small>(If yes, follow confined space entry procedures policy, complete Confined Space Entry Permit, monitor for toxic gases.)</small>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Is trenching or excavation exposed to public vehicular traffic (exhaust emissions)? <small>(If yes, follow confined space entry procedures policy, complete Confined Space Entry Permit, monitor for toxic gases.)</small>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Are employees exposed to public vehicular traffic? <small>(If yes, warning vests required)</small>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Trench measurements: Depth <input type="text"/> Length <input type="text"/> Width <input type="text"/>	
Are ladders within 25 ft. of all workers?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Is excavated material stored two ft. or more from edge of trench?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Are utilities (water/gas pipes, electrical/phone conduit, etc.) protected?	Yes <input type="checkbox"/> No <input type="checkbox"/>
Are sewer or natural gas lines exposed? <small>(If yes, follow confined space entry procedures policy, complete Confined Space Entry Permit, monitor for toxic gases.)</small>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Are periodic inspections made? Last date <input type="text"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>
Did employees receive training in excavation safety?	Yes <input type="checkbox"/> No <input type="checkbox"/>

APPENDIX M

MATERIAL SAFETY DATA SHEETS FOR CHEMICALS OF CONCERN

All on site supervisory personnel employed by D.R.Billings, Inc. has a complete 3 ring binder of all MSDS sheets for all materials that the company uses.

Anyone needing to research a specific material is aware that the MSDS Book is located in the company truck. Also, a spare MSDS book is located in the job trailer for visitors to research if necessary. As visitors "sign-in," the MSDS book is located where the sign in sheet is.

Any new MSDS sheets that are acquired are copied by the Office Manager and distributed to each supervisory personal for their individual books.

Attachment B

Contingency Plan
(Appendix N to Health and
Safety Plan prepared by
D.R. Billings, Inc.)

CONTINGENCY PLAN

Hill 78 Area-Remainder
Removal Action Area Project

General Electric Company
Pittsfield, Massachusetts

D. R. Billings, Inc.
730 Cheshire Road
Lanesboro, MA 01237

November 2008

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- 3.2 Prevention Methods
 - 3.2.1 Wipe Sampling
- 3.3 Site Communications
- 3.4 Conditions for Contingency Actions
- 3.5 Assessing the Risk
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 - 3.5.2 Spills or Material Release
 - 3.5.3 Severe Weather Conditions
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- 5.3 Site Personnel Illnesses
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- 5.6 Spills or Material releases
- 5.7 Contingencies
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1.0 INTRODUCTION

D.R. Billings, Inc. has been contracted by General Electric Company (GE) to conduct all activities associated with soil related remediation activities located on the Hill 78 property. This Contingency Plan presents procedures to be followed by personnel in the event of certain unplanned operational problems or extraordinary events that may pose a real or potential threat to human health, safety or the environment. This Contingency Plan is in addition to the health and safety procedures implemented by D.R. Billings as described in the project specific Health and Safety Plan.

This plan was written in conformance with the requirements of the GE Request for Proposal Hill 78 Area -remainder; the General Electric Company Project Operations Plan (POP); The Emergency Preparedness and Contingency Plan – On-Plant Consolidation Areas, June 1999; and 29 CFR 1910.

1.1 General

The project comprises of soil related remediation activities at the Hill 78 location. This area is comprised of GE owned tax parcels K11-7-2 and K11-7-201, and tax parcel K11-7-1 located in the southwest portion of the RAA along Merrill Road. This soil remediation project is the result of evaluations of PCBs in soil under post-remediation conditions. These soil remediation activities in the “Hill 78 Area-Remainder” will achieve the applicable performance standards under the Consent Decree (CD) and Statement of Work for Removal Actions Outside the River (SOW).

1.2 Purpose

This Contingency Plan provides guidance for ensuring the protection of human health, safety and the environment under certain emergency situations. GE has identified three general categories of emergency situations: fire and/or explosion; releases to the environment (atmosphere, soil or surface water); and severe weather conditions. Any event falling into one of these categories warrants the activation of the appropriate components of this Plan. Both the On-site Supervisor and the Site Safety Officer (SSO) have the authority to implement this Plan. The SSO will act as the primary incident commander (IC) until he relinquishes or is relieved of that responsibility by appropriate emergency response personnel. The On-site Supervisor is the alternate IC in any circumstance where the SSO is unable to assume that responsibility.

The Contingency Plan covers all site emergency situations that pose a threat to human health, safety or the environmental. These situations include, but are not limited to the following:

- Identification of a localized and containable fire
- A spill or material release to the atmosphere, surface water or soil
- Severe weather conditions
- Physical or chemical injury to a worker or other on-site personnel

1.3 Site Characterization

Hill 78 Area-Remainder occupies an area of approximately 29.60 acres in the central to eastern portion of the GE Plant Area in Pittsfield. This area is generally bounded by Tyler Street Extension on the north, New York Avenue to the west, a parking lot for the adjacent General Dynamics facility to the east (which is part of the Unkamet Brook RAA), and Merrill Road to the south. In addition, a small area to the north of the Tyler Street Extension is also included in Hill 78 Area-Remainder. The Hill 78 and Building 71 Consolidation Areas (OPCAs) and related stormwater retention basins are not part of Hill 78 Area-Remainder. A site map is provided as Appendix A to the HASP.

Hill 78 Area-Remainder is located outside of the 100-year floodplain of the Housatonic River, Silver Lake, and Unkamet Brook. The area is comprised of the GE-owned tax parcels K11-7-2 and K11-7-201, and tax parcel (Parcel K11-7-1), located in the southwest portion of the RAA along Merrill Road, which had been owned by Pittsfield Generating Company, L.P. (PGC) (formerly known as Altresco Pittsfield, LP), which also leases the generating facility on GE-owned Parcel K11-7-201, but is now owned by GE, as title was transferred on or about March 21, 2008. The Tyler Street Extension is also owned by GE.

2.0 EMERGENCY PHONE NUMBERS AND EQUIPMENT

2.1 General

Key personnel are identified in section 2.1 of the Project HASP. In addition to the responsibilities identified in HASP, the SSO and On-Site Supervisor have the following responsibilities under this Plan:

Site Safety Officer

In an emergency situation the SSO responsibilities shall include, but are not limited to, the following:

- Primary IC (until relieved by appropriate response personnel)
- Provide Contingency Plan training to all employees
- Assess risks in an emergency situation
- Activates Contingency Plan
- Establishes and maintains communication with emergency response personnel
- Provide data on site chemicals, hazards and risks to emergency response personnel as requested
- Implement emergency procedures, evacuation routes and other pertinent emergency response information as required
- Stop work at the site if any condition is detected that presents an imminent danger to the health and safety of workers or the general public.
- When appropriate delegate specific tasks to on-site personnel

On-Site Supervisor/Foreman

In an emergency situation the supervisor/foreman's responsibilities include, but are not limited to, the following:

- Alternate IC (when On-site Supervisor is unable to assume that responsibility and until relieved by appropriate response personnel).

All Personnel

All D.R. Billings personnel must adhere to the procedures outlined in the Contingency Plan during a site emergency.

2.2 Emergency Equipment

Adequate emergency equipment for the activities being conducted on-site and as required by applicable sections of 29 CFR 1910 and 29 CFR 1926, will be on-site prior to the commencement of project activities. Personnel will be provided with access to emergency equipment, including but not limited to the following:

- Fire extinguishers of adequate size, class, and number located in each piece of heavy equipment and in the on-site trailer;
- First aid kits of adequate size for the number of personnel on-site and an emergency eyewash station;
- Tools for tightening fittings and valves;

- Dry absorbent for minor spills;
- Shovels, brooms and dozers for site spill response; and
- Leak proof containers for storage and disposal of contaminated materials.

2.3 Emergency Contact Information

Emergency Contact Information

Name	Company	Responsibilities	Phone Numbers
D. R. Billings Personnel			
Dudley Billings	D.R. Billings	Sr. Project Manager	413-442-2476 (office) 413-446-2827 (cell)
Donald Puntin	D.R. Billings	Project Manager	413-442-2476 (office) 413-446-3103 (cell)
Glenn Newton	D.R. Billings	On-Site Supervisor	413-442-2476 (office) 413-281-9772 (cell)
Bill Goddard	D.R. Billings	Site Safety Officer	413-442-2476 (office) 413-212-1883 (cell)
General Electric/ARCADIS Personnel			
Dick Gates	General Electric	GE Project Manager	413-448-5909
Bill Rankin	ARCADIS	ARCADIS Project Manager	315-671-9209
Bob Papallo	ARCADIS	ARCADIS On-Site Manager	413-448-5969 (office) 413-281-0704 (cell)
Off-Site Emergency Personnel			
Plant Protection	General Electric	Emergency Response	413-448-6666
Fire	Pittsfield Fire Department	Fire Emergency	911
Police	Pittsfield Police Department	Police Response	911
Hospital	Berkshire Medical Center	Medical Emergency	413-447-2000
Directions To Hospital	Exit gate 25, take right (north) on New York Avenue, Take first left (west) on to Tyler Street Continue west on Tyler St. following signs to Berkshire Medical Center.		
Ambulance			911
Poison Control Center			(800) 336-6997
USEPA National Response Center			(800) 438-2427
Mass Spill Hot Line			(617) 556-1133
Mass 24-Hour Hot Line			(888) 403-1133

3.0 PREVENTIVE MEASURES AND CONTINGENCY ACTIONS

3.1 General

This section identifies precautions that will be utilized to minimize fires and/or explosions, spills of releases of materials, and other impacts to the environment. In the event of a fire or explosion, spill or release, or severe weather conditions, this section also provides contingency measures to be performed by site personnel.

The Site Safety Officer (SSO) has primary responsibility for evaluating, responding to and correcting emergency situations on the site. The SSO is also responsible for evaluating the site to assess the potential for fire, contaminant release, or other catastrophic event and is responsible for communicating the emergency procedures to employees. The SSO is the contact person if any employee identifies an actual or potential emergency situation. On a regular basis, the SSO will review site operations to assess hazards, and will review emergency response procedures with employees.

The SSO will attend and participate in any planning meetings required by GE or local emergency management departments for the purposes of coordinating emergency response to the project site and/or for communicating D.R. Billings' procedural information.

Prior to conducting work on the site, the SSO will establish an evacuation location for use in the event of a site evacuation. The location may change as progress is made at the site. The SSO will communicate to all employees the evacuation location, the evacuation plan and the mechanism for notifying employees of an evacuation

In the event of any emergency, GE Plant Protection is to be contacted to respond and/or coordinate response activities.

3.1.2 Wipe Sampling

Wipe sampling of excavation buckets will occur after subgrade has been achieved and surveyed. Once survey has determined that no further excavation is needed for the remedial area, a piece of polyethylene sheeting will be placed on the ground adjacent the excavation area. The bucket used for excavation will be cleaned over the polyethylene sheeting. All the cleaning residue, water, tools etc. will be gathered on the polyethylene, contained, bundled up and disposed of in a barrel supplied by GE.

After the bucket cleaning is completed. The "cleaned bucket" will be placed on a new, clean piece of polyethylene sheeting, wrapped up, secured and isolated with duct tape until such a time that the swipe test results confirm that the bucket is in fact "clean".

After a "clean test result" the polyethylene can then be removed from around the bucket and disposed of as general waste. If the test result is negative, the same routine will be followed until a clean result is achieved.

3.2 Prevention Methods

All possible precautions shall be taken when performing consolidation activities to minimize the impacts to soil, water, air, structures, equipment or materials that would result from a fire and/or explosion, or from a spill or release. This includes the following:

- Implementation of silt fencing and/or hay bales, as necessary, around the perimeter of the work area to contain the spill and to minimize the exposed area that would be impacted in the event of a spill or release;
- Use of contained, lined vehicles for transportation from the response action area to the consolidation area;
- Minimizing material transport over water courses;
- Minimizing the time handling consolidation materials (i.e., minimize “double handling”);
- Minimizing dust resulting from the transport, handling, and/or placement of consolidation materials (including soil covers) with the use of dust suppression methods (e.g., watering);
- Installing daily covers at the end of each working day or final covers when final design grades are achieved;
- Making fire fighting, and spill containment and cleanup materials readily available for use if necessary; and
- Air monitoring as described in the HASP during all soil and consolidation materials handling activities.

Additionally, Material Safety Data Sheets (MSDSs) for substances stored on-site during the consolidation activities will be made readily available to site personnel. These substances include the following:

- Automotive gasoline;
- Diesel fuels;
- Select Motor Oils;
- Propane; and
- Various cleaning products.

These materials will be kept in the containers provided by the supplier or manufacturer, and securely stored.

3.3 Site Communications

There will always be at least two employees on-site during active consolidation activities. If an emergency situation develops, the first employee who becomes aware of the situation will contact the SSO or Site Supervisor(s), who will then contact the GE Project Coordinator. Upon being advised of the emergency situation, the GE Project Coordinator and SSO will assess the nature of the emergency to determine the proper course of action.

3.4 Conditions for Contingency Actions

Some of the conditions under which contingency actions will be implemented are:

- Identification of a localized and containable fire;
- Occurrence of a spill or material release;
- Severe weather conditions; or
- Physical or chemical injury to a worker.

3.5 Assessing the Risk

The SSO's initial response to any emergency will be to protect human health and safety and then the environment. Secondly, the SSO will assess the nature of the emergency, the steps required to contain and treat the emergency, and any requirements for disposal that may result from containing and treating the situation.

The SSO will assess possible hazards to human health and the environment that may result from any emergency situation. This assessment will take into considerations both direct and indirect effects of the incident (e.g., the effects of toxic, irritating, or asphyxiating gasses that are generated).

3.5.1 Fire and/or Explosion

Contingency actions will immediately be implemented upon notification that any of the following events has occurred:

- A fire causes, or could cause, the release of toxic fumes;
- The fire spreads and could possibly ignite nearby fuel oil or could cause heat-induced explosion;
- The fire could possibly spread to off-site areas;
- Use of water or water and chemical fire suppressants could result in uncontrollable contaminated runoff;
- A danger exists that an explosion could occur causing a safety and health hazard;
- A danger exists that an explosion could ignite other hazardous waste at the Consolidation area;
- A danger exists that an explosion could result in release of toxic material; or
- An explosion has occurred.

Each piece of heavy equipment is equipped with a fire extinguisher. In the event of a very small fire, site personnel will attempt to extinguish the fire with available extinguishers, if safe to do so. Regardless of the size of the fire, the GE On-Site Project Manager and/or the SSO will contact GE Plant Protection immediately to direct fire fighting response activities.

3.5.2 Spills or Material Release

The primary potential for spills occurring during the sewer line project involves liquid spills involving fuel, lubricating oils, etc. The following spills or material releases, whether detected as having occurred or being imminent, will cause for contingency actions:

- A spill that could result in release of flammable liquids or vapors, thus causing a fire or gas explosion hazard;
- A spill that could cause the release of toxic vapors or fumes into the atmosphere;
- A spill that can be contained on-site but a potential exists for ground water or surface water impact; or
- A spill that cannot be contained on-site resulting in a potential for off-site soil contamination and/or ground water or surface water impact.

Upon implementation of any contingency actions, the SSO will immediately assess the magnitude based on:

- MSDSs for the material spilled or released;
- Source of the release or spillage of hazardous material;
- An estimate of the quantity released and the rate at which it is being released;
- The direction in which the spill or air release is moving;
- Personnel who may be or may have been in contact with material, or air release, and possible injury or sickness as a result;
- Potential for fire and/or explosion resulting from the situation; and
- Estimates of area under influence of release.

If a release occurs the SSO will immediately activate the necessary corrective actions and contact the GE On-Site Project Manager. If the GE On-Site Project Manager and SSO determine that the spill is of sufficient size to warrant further response, the GE On-Site Project Manager and/or the SSO will contact GE Plant Protection immediately to direct response actions.

In the event of an emergency spill or release, all personnel not involved with emergency response activity will immediately evacuate the area around the release. The spill or release area will be roped or otherwise blocked off.

All personnel must take every precaution to minimize the potential for spills during operations. All on-site personnel shall immediately report any discharge, no matter how small to the SSO.

Spill control equipment and materials will be located in the on-site trailer. All sorbent materials used for the cleanup of spills will be containerized and labeled appropriately in leak proof containers with over fill protection. In the event of an unintentional discharge of materials, including equipment fluid (e.g. hydraulic oil, gasoline, diesel oil), employees will take the following actions:

- Immediately notify the SSO;
- Evacuate immediate area of release;
- Immediately contact GE On-Site Project Manager;
- Assess risk and thresholds and contact Plant Protection as warranted;
- Assist GE Plant Protection response activities if directed to do so.

Following a release, the SSO will provide assistance to GE Plant Protection, as requested, to help evaluate the release, including the type of material, the volume, the location of the release and will determine the necessary control procedures, including air monitoring, PPE, clean-up requirements and material disposal requirements.

3.5.3 Severe Weather Conditions

The following severe weather conditions, whether occurring or imminent, will trigger performance of contingency actions:

- A tornado has been sighted in the area;
- A tornado warning is in effect for the area;
- A lightning and/or thunder storm is underway in the area;
- Significant wind with sustained wind speeds above 20 mph or
- A snow storm with low visibility.

3.6 Contingency Actions for Fire and Explosions

When fire or explosion appear imminent or have occurred, all normal work activities will cease. The SSO will perform a risk assessment of the severity of the situation and decide whether the emergency event will or will not be readily controllable with existing portable extinguishers or available site equipment and materials. Fire fighting will not be done at the risk to operating personnel. GE Plant Protection must be contacted immediately to direct response activities to any fire or explosion on the site.

If the fire can be handled by on-site personnel without undue risk to their well-being, fire extinguishers and/or water may be used to contain the fire. However, as a general rule all fire fighting response activities will be directed by GE Plant Protection. After the fire has been extinguished, the SSO will assess the damage done by the fire and work with the GE On-Site Project Manager and GE Plant protection to determine corrective actions necessary to clean up the area and contain runoff.

If the situation appears uncontrollable and the SSO believes that human life or health is threatened or when so directed by GE Plant Protection, the site will be evacuated. The SSO will consult with GE Plant Protection and the GE On-Site Project Manager at the scene to alert personnel when all danger has passed. GE Plant Protection will determine when all danger has passed and personnel can safely return to the site.

All equipment used in the emergency will be cleaned and refurbished as soon as possible after the emergency has passed so that it will be ready for use in the event of a future emergency.

3.7 Contingency Actions for Spills or Material Releases

Should a spill occur involving liquids during excavation or soil handling activities (i.e., fuel lubricating oils, etc), the following procedures will be implemented:

- The spill will be contained with berms formed with soil and/or dry absorbent;
- Dry absorbent will be applied to the spill in a quantity sufficient to fully contain the spill;

- Absorbent will be shoveled into 55-gallon leak proof drums;
- Spilled materials and associated wastes will be labeled, stored and disposed of according to their regulatory classifications; and
- Appropriate spill cleanup verification will be performed to that satisfaction of the GE On-Site Project Manager and appropriate regulatory agencies for all spills. The type of verification sampling will be determined by the GE On-Site Project Manager and the appropriate regulatory agencies. .
- Liquid spills as well as impacted media will be disposed of at an appropriate licensed disposal facility.

3.8 Severe Weather Conditions

This section addresses the contingency actions to be performed during severe weather conditions, including heavy rains, tornadoes, electrical storms, freezing temperatures and high wind conditions.

3.8.1 Heavy Rains

During rainy periods, excavated soils and trenches are subject to the possibility of soil erosion and collapse. This problem will be alleviated by the use of surface runoff controls (e.g., drainage swales, berms, silt fences, and hay bales) to direct drainage away from active or sensitive areas. Materials which are visibly exposed as a result of heavy rains will be immediately covered with plastic sheeting. In severe heavy rain conditions, active work in trenches will be suspended. Following the rain storm, the SSO must assess the stability of the trench and the potential risk for collapse prior to resuming active work in the trench.

3.8.2 Tornadoes and Electrical Storms

When a tornado warning has been issued, or has been sighted in the area, or when an electric storm occurs, the SSO will immediately institute emergency shutdown procedures, and all personnel will take shelter. Workers will take necessary precautions during lightning storms to protect themselves from lightning strikes. If possible, workers will stay indoors or in a car. If someone is hit by lightning, immediate medical attention will be sought, and CPR will be initiated if breathing and/or circulation has stopped.

When the storm has passed, the SSO will inspect all on-site equipment to ensure its readiness for operation. If the inspection indicates a fire, explosion or release has occurred as the result of a severe weather condition, the procedures for those events will be followed.

3.8.3 Snowfall and Freezing Conditions

Excavation and construction activities are expected to continue through the winter months with the possibility of performing operations in heavy snowfall and freezing conditions. Snow removal from access roads and operation areas, as necessary, will be accomplished with a dozer and/or front loader. During snow removal operations, snow banks will be arranged in a manner that provides adequate snowmelt drainage away from the excavation and construction areas and roadways.

Cold stress normally occurs in temperatures at or below freezing, or under certain circumstances, in temperatures of 40°F. Extreme cold for a short time may cause severe injury to exposed body surfaces or result in profound generalized cooling, causing death. Areas of the body that have high surface area-to-volume ratio, such as fingers, toes, and ears are the most susceptible. Two factors influence the development of a cold weather injury: ambient temperature and the velocity of the wind. For instance, 10°F with a wind of 15 miles per hour (MPH) is equivalent in chilling effect to still air at 18°F.

Local injury resulting from cold is included in the generic term frostbite. There are several degrees of tissue damage associated with frostbite. Frostbite of the extremities can be categorized into the following:

- *Frost Nip or Incipient Frostbite* – characterized by sudden blanching or whitening of skin.
- *Superficial Frostbite* – skin has a waxy or white appearance and is firm to the touch, but tissue beneath is resilient.
- *Deep Frostbite* – tissues are cold, pale, solid; extremely serious injury.

Systemic hypothermia is caused by exposure to freezing or rapidly dropping temperature. It can be fatal. Its symptoms are usually exhibited in five stages: 1) shivering; 2) apathy, listlessness, sleepiness, and (sometimes) rapid cooling of the body to less than 95°F; 3) unconsciousness, glassy stare, slow pulse, and slow respiratory rate; 4) freezing of the extremities; and 5) death. Trauma sustained in freezing or sub-zero conditions requires special attention because an injured worker is predisposed to secondary cold injury. Special provisions must be made to prevent hypothermia and secondary freezing of damaged tissues in addition to providing for first aid treatment. To avoid cold stress, site personnel must wear protective clothing appropriate for the level of cold and physical activity. In addition to protective clothing, preventative safe work practices, additional training, and warming regimens may be utilized to prevent cold stress. In extreme temperature conditions, that is when the air temperature is consistently below -10° F or above 105° F, the SSO will assess the risk of continuing work activities and determine whether to temporarily suspend work activities.

Safety Precautions for Cold Stress Prevention

- For air temperatures of 0°F or less, mittens should be used to protect hands. For exposed skin, continuous exposure should not be permitted when air speed and temperature results in a wind chill temperature of -25°F.
- At air temperatures of 36°F or less, field personnel who become immersed in water or whose clothing becomes wet must be immediately provided a change of clothing and be treated for hypothermia.
- If the work is done at normal temperatures or a hot environment before entering the cold, the field personnel must ensure that their clothing is not wet as a consequence of sweating. Wet field personnel must change into dry clothes prior to entering the cold area.
- If the available clothing does not give adequate protection to prevent hypothermia or frostbite, work must be modified or suspended until adequate clothing is made available or until weather conditions improve.

- Field personnel handling evaporative liquid (e.g. gasoline, alcohol, or cleaning fluids) at air temperatures below 40°F must take special precaution to avoid soaking of clothing or gloves with the liquids because of added danger of cold injury due to evaporative cooling.

Safe Work Practices

- Direct contact between bare skin and cold surfaces (<20°F) should be avoided. Metal tool handles and/or equipment controls should be covered by thermal insulating material.
- For work performed in a wind chill temperature at or below 10°F, workers should be under constant protective observation (“buddy system”). The work rate should be established to prevent heavy sweating that will result in wet clothing. For heavy work, rest periods must be taken in heated shelters and workers should be provided with an opportunity to change into dry clothing if needed.
- Field personnel should be provided the opportunity to become accustomed to cold-weather working conditions and required protective clothing.
- Work should be arranged in such a way that sitting or standing still for long periods is minimized.
- During warming regime (rest period), field personnel should be encouraged to remove outer clothing to permit sweat evaporation or to change into dry work clothing. Dehydration, or loss of body fluids, occurs insidiously in the cold environment and may increase susceptibility to cold injury due to a significant change in blood flow to the extremities. Fluid replacement with warm, sweet drinks and soups is recommended. The intake of coffee should be limited because of diuretic and circulatory effects.

3.8.4 High Winds

High winds have the potential to create significant dust and reduce visibility. When sustained winds at the site are greater than 20 mph, site activity will be curtailed and exposed areas will be provided with temporary plastic or earthen covers. All excavation activities will cease until the sustained wind speed is below 20 mph.

3.9 Injury to Workers

Regardless of the nature and degree of the injury, the GE On-Site Project Manager will be apprised of all injuries requiring First Aid of any kind. Minor injuries sustained by workers will be treated on-site using materials from First Aid kits. Whenever possible, such treatment will be administered by trained personnel in the personnel decontamination area or other “clean” zones. Examples of minor injuries include small scrapes and blisters. Minor injuries such as these will not trigger implementation of contingency actions.

Major injuries sustained by workers will require professional medical attention at a hospital. The SSO will immediately follow procedures in this plan by contacting GE Plant Protection who will summon an ambulance to transport the injured worker to the hospital. The hospital and ambulance will be advised of the following:

- The nature of the injury;
- Whether the injured worker will be decontaminated prior to transport;
- When and where the injury was sustained; and
- The present condition of the injured worker (e.g., conscious, breathing).

Emergency decontamination procedures will be implemented, if necessary. The injured person will, at a minimum, be wrapped in a blanket to prevent spreading of contamination to the transport vehicle. An employee will accompany the injured worker to the hospital and will bring copies of applicable MSDSs.

3.9.1 Physical

First Aid will be administered to physical injuries. If the injury is major, off-site medical attention will be required.

All employee injuries must be promptly reported to the SSO. If first aid is warranted, trained personnel will provide first aid. If an injury is more extensive and requires treatment beyond first aid, the SSO will immediately contact GE Plant Protection to assist in coordinating medical attention.

3.9.2 Chemical

If the injury involves chemical exposure, the following situations will require First Aid procedures as listed:

1. Eye exposure – thoroughly rinse at the eye wash station or portable eye wash unit using water and/or eye wash solution. Obtain medical attention immediately.
2. Dermal exposure – rinse affected area immediately using clean water. Obtain medical attention, if necessary.
3. Ingestion – refer to MSDS and administer emetic, if required. Obtain medical attention immediately.
4. Inhalation – move to fresh air. If breathing has stopped, perform CPR. Obtain medical attention immediately.

3.9.3 Biological

If there is contact with poisonous plants, the following procedures will be implemented:

- Wash affected area immediately with soap and water;
- Remove clothing and wash;
- Apply ointment to affected area to reduce itching; and
- For severe inflammation and itching, contact a physician.

In case of a poisonous snake, animal or insect bite, the following will be performed:

- Keep the victim lying down and calm;
- If possible, identify animal that inflicted wound;

- Apply a constricting bandage 2 inches above the wound on the side leading blood toward the heart;
- Sterilize the surrounding wound area with antiseptic;
- Obtain medical attention immediately; and
- In the case of removal of ticks, they will be removed with tweezers. If satisfactory removal cannot be accomplished at the site, medical attention will be sought.

Biological hazards may include poison ivy, snakes, thorny bushes and trees, ticks, mosquitoes, and other pests.

Lyme Disease

General:

- The disease commonly occurs in summer and is transmitted by the bite of infected ticks. The disease is transmitted primarily by the deer tick, which is smaller and redder than the common wood tick.

Symptoms:

- Rash or peculiar red spot, like a bull's eye, which expands outward in a circular manner.
- Headaches, weakness, fever, a stiff neck, and swelling and pain in the joints, and eventually arthritis.
- Muscle and joint aches and flu-like symptoms, but there is typically no skin rash.

Controls:

- Tuck pant legs into socks.
- Wear long sleeves.
- Use insect repellent.

Poisonous Plants

General:

- Poisonous plants may be present in the work area. Personnel should be alerted to its presence and instructed on methods to prevent exposure.

Controls:

- Avoid contact with the plant.
- Cover arms and hands.
- Frequently wash potential exposed skin.
- If skin contact is made, the area should be washed immediately with soap and water and observed for signs of reddening.

Snakes

General:

- The possibility of encountering snakes exists, specifically for personnel working in wooded/vegetated areas.

Symptoms:

- Neurotoxic effects with sensory, motor, cardiac, and respiratory difficulties.
- Swelling, edema, pain around the bite.

Controls:

- Awareness of the potential for encountering snakes and situations for encounters, such as turning over logs, etc.
- If a snake bite occurs, an attempt should be made to safely kill the snake for identification.

- The victim must be transported to the nearest hospital within 30 minutes; first aid consists of a constriction band and washing the area around the wound to remove any unabsorbed venom.

3.10 Controlling Dust

Dust from access roads and un-vegetated areas may be a problem during excavation activities, particularly during dry and windy weather. Dust control will be accomplished by wetting the site roads and active areas as needed. To further control dust, excavated areas that are filled to final grade, or areas that will not receive additional material within three months will be seeded with a quickly germinating rye grass.

Dust monitoring will be performed each day during site activity using an MIE pDR-1000 particulate monitor. The monitor, which measures respirable particulate matter, will be placed in the employee breathing zone and run continuously during site activity. Periodic readings during the day (4 times per day) will be recorded on the log presented in Appendix G of the HASP. Work practices such as the application of water or other dust control measures will be implemented as needed to reduce visible and respirable dust.

3.11 Noise

Elevated noise levels at the work will be due to the construction operations and truck traffic on site access roads. All construction equipment used at the site will have muffler systems designated to minimize noise. Such equipment will be maintained with exhaust systems meeting Massachusetts and Federal Department of Transportation guidelines. Vehicles arriving at the site with excessively loud exhaust systems will be instructed to repair the situation. Failure to do so on a timely basis will be grounds for denying access to the site.

Exposure to noise over the OSHA action level can cause temporary impairment of hearing, and prolonged and repeated exposure can cause permanent damage to hearing. The risk and severity of hearing loss increase with the intensity and duration of exposure to noise. In addition to damage to hearing, noise can impair voice communications, thereby increasing the risk of accidents on-site.

All personnel must wear hearing protection with a Noise Reduction Rating (NRR) of at least 20 when noise levels exceed 85 dBA. All site personnel who may be exposed to noise must also receive baseline and annual audiograms and training as to the causes and prevention of hearing loss. Whenever possible, equipment that does not generate excessive noise levels will be selected for this project. If the use of noisy equipment is unavoidable, barriers or increased distance will be used to minimize worker exposure to noise, if feasible

Noise monitoring may be conducted as required. Hearing protection is mandatory for all employees in noise hazardous areas, such as around heavy equipment. As a general rule, sound levels that cause speech interference at normal conversation distance should require the use of hearing protection.

3.12 Equipment and Materials Cleaning

Material and equipment cleaning will be utilized to prevent the transport of PCBs or other potential site materials that may be presented on any equipment or materials used for consolidation activities. The specific materials and equipment cleaning procedures to be utilized include the following:

- A material and equipment cleaning area will be constructed and will generally consist of an impermeable barrier that is sloped to a collection sump.
- Each piece of equipment will be visually inspected prior to leaving the consolidation area. Accumulations of soil or sediment on the vehicle tires or other exterior surfaces will be removed manually or necessary, by using simple green and a water wash in the equipment cleaning area.
- Equipment and materials that have been used to handle consolidation materials will be cleaned in the equipment cleaning area before it enters non-work areas, handles “clean” materials (e.g., cover soils, etc.) or leaves the site. Liquid materials (and other residual material collected during equipment decontamination) will be collected, containerized, and properly disposed of.

All vehicles that have entered the EZ will be decontaminated prior to leaving the zone. An earthen/hay bale berm lined with polyethylene sheeting will be constructed to contain equipment to be decontaminated. The equipment will first be brushed clean then sprayed with “Simple Green”. After a period of soaking, the entire piece of equipment will be scrubbed with a brush. After scrubbing, the equipment will be washed with a hose. All dirt and water will be collected for disposal.

4.0 EVACUATION PROCEDURES

4.1 General

The decision to evacuate the site in the event of a life threatening situations must be made quickly by the SSO, GE On-Site Project Manager or GE Plant Protection. This decision will be based on:

- The location and extent of the fire/explosion, spill/release, and/or severity of the weather condition;
- The materials involved in the fire/explosion, and/or spill/release;
- Proximity of other materials to the fire/explosion, and/or spill/release; and
- Prevailing wind and weather conditions.

Evacuation procedures will be implemented when human health is in danger. If the SSO, GE On-Site Project Manager or GE Plant Protection determines that a site incident requires evacuation of all on-site personnel, he/she will follow the below evacuation procedures.

- Evacuation routes will be in the predominately upwind direction of the Exclusion Zone;
- Evacuation routes will be through the Decontamination Area in order to decontaminate, if time allows, and to account for site personnel;
- Alternative routes will be established in case the primary route is blocked by fire, spill, etc. Alternative routes will not cross or overlap the primary routes;
- Mobility constraints of personnel wearing clothing and equipment will be considered; and
- All site personnel will be clearly aware of evacuation routes.

Prior to conducting work on the site, the SSO will establish an evacuation location for use in the event of a site evacuation. The location may change as progress is made at the site. The SSO will communicate to all employees the evacuation location, the evacuation plan and the mechanism for notifying employees of an evacuation

5.0 RECORDKEEPING

5.1 General

Records of the following activities will be made and kept at the on-site field office as well as with the GE On-Site Project Manager. The following records will be maintained for the length of time noted in the appropriate regulation:

- Accidents or incidents reportable under OSHA 29 CFR 1904;
- Illnesses of site personnel;
- Occurrences of spills or material releases and related actions;
- Incidents resulting in evacuation;
- Incidents resulting in implementation of any aspect of this Plan;
- Training records documenting date, attendance, and topics covered;
- Daily safety logs; and
- Weekly safety meeting reports.

5.2 Construction Equipment

Maintenance schedules and decontamination records will be maintained for all site construction equipment used during the consolidation activities.

5.3 Site Personnel Illnesses

Exposure to contaminants will be minimized by the use of appropriate personal protective equipment by site personnel, and implementation of health and safety precautions and procedures. Any personnel exhibiting symptoms associated with exposure to contaminants will immediately report them to the SSO and the Site Supervisor. The occurrence of any symptoms by site personnel will be recorded. Upon investigation of the personal protective gear being employed, the GE On-Site Project Manager and SSO will assess the need for additional protective measures.

5.4 Accidents or OSHA-Reportable Incidents

Recordkeeping and reporting injuries and illnesses will adhere to the requirement of OSHA 29 CFR 194. The Site Supervisor shall maintain a record of all recordable occupational injuries and illnesses throughout the project. Entries shall be recorded within 6 working days of the incident.

Injuries and illness, however minor, will be report to the SSO immediately. The SSO will complete an injury report and submit it to the Project Manager within 24 hours. The PM will notify GE of the incident within 24 hours and submit a written report to GE within 48 hours of the incident. Additionally, the D.R. Billings OSHA 200 log will be updated to include the pertinent information.

5.5 Site Inspections

Any site inspection (e.g., Agency, OSHA, etc.) results will be maintained on-site.

The SSO will conduct a daily inspection of site activities, required equipment, and procedures to verify that the required health and safety elements are in place. The Safety Inspection Checklist (Appendix E) and Equipment Inspection Checklist (Appendix F) are used to document daily inspections.

5.6 Spills or Material releases

All spills or material releases will be recorded to indicate the date and time of the incident, the estimated volume of the spill or material release, and the source of the spill or material release. Also included will be the methods and materials employed to clean up the condition and disposal procedures for the released materials. Occurrences of any spills or material releases during the project will be reported to the appropriate agency(ies).

5.7 Contingencies

Any incident that results in implementation of any contingency actions described in this plan will be reported immediately to GE and the appropriate agencies. Notification will include the nature of the incident that triggered implantation of the contingency action, the date and time at which the activity was implemented, and the results of the implementation.

5.8 Evacuations

Any incident that requires evacuation will be immediately reported to GE and the appropriate agency(ies). GE and the agency(ies) will be notified regarding the nature of the incident that triggered the evacuation, and the extent to which evacuation was conducted (e.g., only site personnel, or project surroundings). The date and time at which the evacuation was implemented and the duration for which the site was abandoned will also be incorporated into the report. At a minimum, the following will be included in the report:

- Chronological history and facts of the incident;
- Titles and names of personnel involved;
- Action and decisions made by whom, when, and the results;
- Types of samples and test results taken; and
- Possible exposure to site personnel.

Attachment C

Operations Plan
(prepared by D.R. Billings, Inc.)

OPERATIONS PLAN

Hill 78 Area-Remainder
Removal Action Area Project

General Electric Company
Pittsfield, Massachusetts

Prepared by:

D. R. Billings, Inc.
730 Cheshire Road
Lanesboro, MA 01237

November 2008

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1.0 INTRODUCTION

- 1.1 D.R. Billings, Inc. has been contracted by General Electric Company (GE) to conduct all activities associated with soil related remediation activities located on the Hill 78 Area-Remainder property. This Operations Plan represents the procedures and sequencing that will occur to fully complete the project scope of work within the project specifications. This Operations Plan is to work in conjunction with the HASP and Contingency Plan for the Hill 78 Area- Remainder project.

2.0 List of Equipment to be used in site

- 2.1 The following list of equipment owned by D.R.Billings Inc. will be used as needed as site conditions dictate.

Hill 78 Remainder Oper. Plan

EQUIPMENT FLEET 2008				
D. R. Billings, Inc. (413) 442-2476				
730 Cheshire Road, Lanesboro, MA 01237				
TYPE	QTY.	EQUIPMENT		
DOZERS	3	Dresser TD15C		
	2	Dresser TD15C LGP (wide track)		
	1	Dresser TD25G w/Ripper		
EXCAVATORS	3	Kato 770B w/3000 LB Hoe Ram		
	1	PC300 Komatsu -	2	CY
	1	CAT 235 -	2 1/4	CY
	4	John Deere 230LC -	1 5/8	CY
	1	PC 400 Komatsu	2 1/2	CY
	1	John Deere 200LC -	1 1/4	CY
	1	Kato 770B -	1 1/4	CY
	2	CAT 312BL	1	CY
	1	Case 1085B Rubber Tired	5/8	CY
	2	Volvo EC210 -	1 1/4	CY
LOADERS	3	Komatsu 450	5	CY
	1	CAT 980B 5 CY	5	CY
	2	Dresser 540 Loaders	4	CY
	1	Samsung SL120 Side Dump	2 1/2	CY
	1	International 530	3	CY
	2	John Deere -Side Dump	2 1/2	CY
	1	Case 1845C Skid Steer Loader	1/2	CY
OFF ROAD TRUCKS	4	Volvo A25C 6x6	25	TN
DUMP TRUCKS	6	Tandem 's 18 CY Heated Bodies	18	CY
	1	Rollback - 20 ton	20	TN
	1	One Ton dump - no operator	1	TN
	6	Foreman's Pickup - no operator		
LOWBED TRAILER	1	Tractor/Trlr 35 Ton Capacity*	35	TN
COMPACTORS	1	Vibratory Dresser Roller D784 DD 84"		
	1	Vibratory Roller Ingersol Rand SP-42 72"		
	1	Mikasa DD Roller or R-66 DD Roller		
	3	Trench Compactor - Rammax w/op		
AIR COMPRES	1	175 CFM w/tools - no operator		

3.0 Property Protection Measures

3.1 General

This section identifies precautions that will be utilized to insure property outside the designated work limits will not be disturbed. Access for this project will be through GE property only. Staging of equipment and materials will be on GE property located at a designated spot approved by GE. Any damage will be reported to GE and repaired immediately.

3.2 Pre-Construction Activities

Dig Safe

Prior to any excavation on the Hill 78 Area Remainder, coordination with local utility companies (Dig-Safe) will be established to mark out existing underground utilities. Once existing utilities are located, D.R.Billings will record these locations. This will allow for instant remarking if original markings are disturbed or lost.

Pre-construction survey

“Pre-excavation survey” to confirm existing elevations will be performed prior to any excavation on site. Any deviations from elevation shown on plans will be brought to the attention of the Project Engineers (Arcadis). The “Pre-excavation Survey” will also verify excavation locations as shown in the project documents.

Existing Utility Protection

Certain existing above and below grade utilities are present at the Hill 78 Area-Remainder Site. Some subsurface utilities include: gas, high voltage electric, sanitary sewer and storm sewer piping. The excavation limits for this project is limited to 12 inches. Therefore, disturbance of any underground utilities is highly unlikely. The above ground utilities include overhead high voltage electric lines and steam lines. These utilities will be marked and isolated with construction fencing and yellow caution tape when construction activities are within 25 feet of these utilities. These safety precautions will serve as a visible reminder to stay clear of these utilities.

Work Area Security

Temporary plastic orange construction fencing will be installed at the excavation limits to delineate the work area and to prevent any excavation occurring outside the specified limits. All pedestrians not designated as crew members (visitors) will be obligated to sign in and out at the construction trailer using the “Visitors Log” outlined in the HASP.

3.3 Sub-grade verification

Sub-grade elevations will be verified by a Licensed Land Surveyor (LLS) prior to placing any backfill materials. This independent survey will confirm that the excavation of the soils indicated for removal is completed to the project specification.

4.0 Project Work Schedule

4.1 Anticipated Hill 78 Area- Remainder Project Schedule:

5.0 Stormwater, Erosion and Dust Control Measures

5.1 Stormwater Runoff and Erosion Controls

Stormwater runoff and erosion will be prevented by installing hay bales and silt fence down grade of the excavation areas. If inclement weather is in the forecast, silt fence will be installed up-grade to divert surface runoff from entering the open excavation. All erosion control measures will be installed as shown in the project documents and left in place until a mature growth of vegetation is established and chance of erosion is unlikely. Additional erosion control measures will be stockpiled on site to be installed as needed, or as directed by GE.

5.2 Dust Control

If conditions require dust suppression, water will be sprayed on all excavation and loading operations to keep the soil moist, eliminating airborne particles. Excavated soils will be direct loaded on to T&D trucks provided by others.

6.0 PROPOSED EXCAVATION APPROACH

6.1 Excavation Plan

The excavation for the Hill 78 Area-Remainder will be accomplished using conventional excavating equipment. A list of available equipment is shown in section 2.1 of this Operations Plan.

The project documents indicate a maximum of 12 inch excavation depth. These depths will most likely yield dry soils to be direct loaded on to T&D trucks provided by others. Free liquid in soils during excavation is not anticipated.

All excavation will be completed by staging the equipment and trucks on “clean soils”. In the event a piece of equipment or a T&D truck will have to encroach on “dirty soils,” a polyethylene tarp or similar “separator”, acceptable to the site engineer (Arcadis) will be place on the ground to keep the tires and/or tracks of the excavator from coming in contact with the “dirty soils”. All material used in separating the “dirty dirt” and equipment will be disposed of in the T&D trucks and be considered “dirty”.

In the event that D.R. Billings needs to transport excavated materials to a GE approved staging area. Polyethylene sheeting will be used to line the truck beds and all loads will be covered prior to transport.

All excavations will be carried out to the horizontal and vertical limits as shown on the contract drawings. On site survey will confirm these limits are achieved as specified.

Dust and noise control will be preformed through all excavation and restoration activities.

7.0 MATERIALS HANDLING

7.1 Direct Loading onto T&D Trucks

All excavated soils will be direct loaded on to T&D trucks, provided by others, as stated in section 6.1 above.

7.2 Temporary Stockpiling (if required)

In the event that temporary stock piles are needed, the stockpile area will first be approved by the site engineer (Arcadis). The areas to be used will be located in areas of future excavations (if applicable) or in staging areas approved by GE.

To prevent the contamination of clean soils beneath the stockpiled soils, poly or tarps will be placed on the ground prior to stockpiling excavated soils on that location. All stockpiles will be surrounded with silt fence and covered with poly or tarps to reduce the potential of migration of PCB's into clean soils. Covering the stockpiles will also eliminate the release of airborne particles into the atmosphere.

Any open areas of impacted soils will be covered with polyethylene sheeting when not actively being excavated.

8.0 ENVIRONMENTAL COMPLIANCE

8.1 General

Environmental Compliance will BE obtained by following the approved HASP for this project. At minimum, daily inspections of erosion controls will occur. If any deficiencies are found in the erosion control measures, excavation of soils will stop immediately and erosion control measures will be repaired or replaced as necessary. When the repairs are securely in place and there is no risk of harming the environment, excavation operations can resume.

8.1.1 Air Monitoring and Dust Control

GE's Air Monitoring Contractor (under separate contract) will conduct ongoing monitoring for particulate matter at various locations around the site perimeter. This continuous monitoring will be done during all excavation, handling and loading of all excavated materials for offsite disposal. D.R.Billings will be responsible to confirm the air monitoring, is in fact, taking place. In the event that air monitoring is not being done, all operations that could create airborne dust will not take place.

8.2 Site Restoration:

Site restoration activities shall include:

- The delivery and placement of clean, GE approved backfill material to achieve proposed finish grades
- Survey following initial backfill to verify proposed grades will be achieved
- Place 3” topsoil along with seed and mulch as noted in project documents. All erosion control measures will be removed after seed growth is established and risk of erosion is eliminated and approved by the Site Engineer.

All disturbed areas shall be restored to the same or better than pre-construction conditions as determined by GE’s representatives.

9.0 EQUIPMENT CLEANING

- 9.1 Equipment cleaning will be done in accordance to the approved HASP, section 7.0 Decontamination.

All equipment will be tested (by Arcadis) for cleanliness prior to being removed from site. All results from the equipment cleaning will be documented by Arcadis