Bayer MaterialScience, LLC
125 New South Road
Hicksville, New York

HEALTH AND SAFETY PLAN
FOR
BAYER MATERIALSCIENCE PROJECT

JANUARY 2013

Prepared by:

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Bayer MaterialScience, LLC
Contaminated Soil Removal, Transport and Disposal Project
Site Health and Safety Plan

TABLE OF CONTENTS

SECTION **PAGE**

TABLES

FIGURES

APPENDICES

LIST OF ACRONYMS

EPA	Environmental Protection Agency Region VIII
EZ	Exclusion Zone
Facility	Bayer MaterialScience Project
HASP	Health and Safety Plan
HAZWOPER	OSHA Hazardous Waste Operators Training
MSDS	Material Safety Data Sheet
NIOSH	National Institute for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PEL	OSHA 8-Hour Time-Weighted Average Permissible Exposure Limit
SOP	Standard Operating Procedure
SOW	Scope of Work
RCRA	Resource Conservation and Recovery Act

1.0 Background

1.1 Introduction

EQ Northeast has been retained by Bayer MaterialScience for remedial measures and associated remedial tasks at the Bayer Material Science Remediation site located at 125 New South Road in Hicksville, New York. This Site Health and Safety Plan (HASP) presents the health and safety procedures that are intended to guide services performed in the field by EQ Northeast.

This site-specific Health and Safety Plan (Plan) was prepared in accordance with the Occupational Safety and Health Administration (OSHA) Part 1910 of Title 29, of the Code of Federal Regulations. Guidelines, procedures and permit requirements as outlined in the EQ Northeast Safety and Health Program have also been incorporated into this plan. This Health and Safety Plan addresses site conditions that require "Level D" personal protective equipment. If conditions are encountered that require upgrading to Level C, work will be stopped until the necessary engineering controls have been implemented.

The content of the HASP may be revised and/or amended should additional information become available concerning the hazards present at the site or should significant changes occur in the scope of work, operational procedures, site hazards, and/or hazard control measures. Field personnel will be informed of any changes to the HASP through safety meetings and/or written addendums to the HASP. A copy of this HASP will be continually maintained in the following locations:

- EQ Northeast office – Wrentham, Massachusetts and,
- Maintained On-Site by the EQ Northeast Site Supervisor

This HASP has been prepared for the use of EQ Northeast and its personnel for general operations including specific ongoing and periodic activities at the Bayer MaterialScience Project. For field activities that are not addressed in this HASP and that potentially expose EQ Northeast personnel to potential chemical or physical hazards, the appropriate Project Manager shall prepare a task-specific emergency response plan that shall comply with the requirements of the 29 CFR 1910.120 (I)(1), and may reference this Health and Safety Plan. Elements of an emergency response plan include the following:

- Hazard Assessment
- Pre-emergency planning
- Personnel roles, lines of authority, training, and communication
- Emergency recognition and prevention
- Safe distances and places of refuge
- Site security and control
- Evacuation routes and procedures
- Decontamination procedures
- Emergency medical treatment and first aid

- Critique of responses and follow-up
- PPE and emergency Equipment
- Procedures for handling emergency incidents
- Site topography, layout, and prevailing weather conditions
- Procedures for reporting to local, state, and federal governmental agencies

The Plan will be implemented by EQ Northeast during the remediation activities associated with the Bayer MaterialScience Project. Subcontractors will be required to review and comply with the provisions of the HASP prior to initiating work. Subcontractors must sign a Health and Safety Affidavit form (*Appendix A*) indicating they have reviewed the HASP and will comply with its conditions.

All subcontractors are required to prepare a task-specific plan addressing health and safety for their own employees which shall comply with applicable federal, state and local health and safety regulations including, but not limited to, OSHA regulations 29 CFR 1910 and 29 CFR 1926.

1.2 Site Description and Location

The Site consists of a 14-acre triangular-shaped parcel located just southeast of the intersection of New South Road and Commerce Place in the City of Hicksville, New York. The Site is bordered to the north by industrial properties, to the south and west by the Long Island Railroad (LIRR) and commercial/industrial properties, and to the east by warehouses owned by Simone Development and a complex owned by Northrop Grumman Corporation (Northrop Grumman).

Aside from the Administration Building located in the northern portion of the Site, all other buildings and aboveground structures formerly used in connection with site operations were demolished down to their floor slabs in 2003. The building floor slabs and foundations were demolished and removed between December 2005 and February 2006 in accordance with the NYSDEC-approved Demolition Work Plan (ARCADIS BBL, July 2005) and follow-up correspondence.

In summer of 2009, EQ was contracted to remove approximately 16,000 tons of PCB contaminated soil and concrete. All material was removed and transported as TSCA waste to EQ Wayne disposal in Belleville, Michigan. It is believed that this work scope effectively removed most if not all TSCA hazardous wastes from the property.

1.3 Scope of Work

The scope of work includes but is not limited to the work required for remedial measures and associated remedial tasks at the Bayer Material Science Remediation site, including but not limited to, the following:

- Mobilization/Demobilization

- Excavating soil containing polychlorinated biphenyls (PCBs), metals, and polycyclic aromatic hydrocarbons (PAHs) at concentrations exceeding soil cleanup levels for offsite transportation and disposal.

- Excavating surface soil (top 1 foot of soil) at select locations (where concentrations of constituents meet subsurface soil cleanup levels but exceed surface soil cleanup levels) for re-use as subsurface fill.

- Transporting excavated impacted soil for offsite disposal.

- Collecting and processing verification soil samples (confirmation and documentation samples) to confirm that the remedial objectives are achieved and concentrations are documented.

- Backfilling the excavated areas.

- Material handling, staging, loading and transportation

- Equipment decontamination

- Performing various restoration activities.

2.0 Key Personnel & Responsibilities

This section provides information regarding company and project personnel and a description of EQ Northeast personnel health and safety responsibilities. This section is intended to address the requirements of 29 CFR 1910.120 (b)(2).

2.1 Key Personnel

EQ Northeast will provide project management and implementation of field activities during the project. During each portion of scheduled field activities, EQ Northeast will assign one individual to serve as the Site Health and Safety Officer. The Site Health and Safety Officer is responsible for ensuring that site personnel and activities conform to the protocols defined in this document. The Site Health and Safety Officer may at any time stop a field activity if Health and Safety procedures are being compromised or are insufficient. The Site Health and Safety Officer will maintain direct communication with the Project Manager.

In addition, EQ Northeast has retained the services of a third party subcontractor (Preferred Environmental Services) for health and safety oversight and implementation of the CAMP (Community Air Monitoring Plan). The key personnel responsible for the implementation of this Health and Safety Plan are listed below.

Project Manager:

Name: David Ciroli
Company: EQ Northeast
Office Phone: (508) 803-1206
Cell Phone: (508) 245-1322

Company Health and Safety Officer:

Name: Ed Thornlimb
Company: EQ Northeast
Office Phone: (508) 384-6151
Mobile Phone: (508) 954-3222

Onsite Health and Safety Officer/Site Supervisor:

Name: Jay Oliva
Company: EQ Northeast
Office Phone: (508) 384-6151
Mobile Phone: (508) 245-1327

Health and Safety Oversight/CAMP Implementation:

Name: Jill Haimson
Company: Preferred Environmental Services
Phone: (508) 546-1100 x32

2.2 EQ Northeast Personnel Health and Safety Responsibilities

EQ Northeast is responsible, through the Health and Safety Officer, for ensuring that health and safety programs are adhered to by all employees and subcontractors. With regard to on-site work at the site, the Project Manager will review and approve this document. The Health and Safety Officer will also serve as a site safety inspector in order to ensure that subcontractors are adhering to the requirements of the Health and Safety Plan. Other individuals responsible for the project's Health and Safety Plan are the Site Supervisors and Preferred Environmental. The ultimate responsibility for project Health and Safety lies with the Project Manager and the Health and Safety Officer. In fulfillment of this responsibility, the Project Manager and the Health and Safety Officer lend their support to site Health and Safety programs. Their support will be manifested by approving this Health and Safety Plan and by emphasizing the successful and SAFE completion of the project.

2.3 Visitors

Only visitors authorized by the Health and Safety Officer will be permitted access to the site. Visitors will be required to follow policies and procedures outlined in this Health and Safety Plan. Any visitor entering the job site will be expected to sign this Health and Safety Plan and will be expected to conform to applicable OSHA standards. A Health and Safety Plan Affidavit is provided in Appendix A. Visitors will be required to don personal protection equipment. Visitors will be provided work area-specific orientation/training.

In the event that a visitor does not adhere to the provisions of this Health and Safety Plan, the Health and Safety Officer will record nonconformance in the Daily Safety Log. If the Health and Safety Officer deems that the nonconformance is threatening to the health and safety of personnel, he/she may decide to temporarily suspend site operations until the visitor has left the area of concern.

3.0 Hazard Assessment & Job Safety Analysis

This section identifies health and safety risks or hazards that may be encountered while performing on-site fieldwork and is intended to address these risks or hazards as required by 29 CFR 1910.120 (b)(4). Hazards are categorized into chemical hazards, physical hazards and biological hazards. Hazard Analysis tasks and activities are summarized in Appendix C. Prior to the start of each new work activity an EQ Job Safety Analysis (JSA/JHA) will be completed by the site QA representative (typically the Site Supervisor) and covered with all project personnel including the Project Engineer. No new project tasks will be started without an accompanying JSA, which will be maintained in the site project file. Refer to Appendix C for the JSA Form. In addition to continual monitoring by the site health and safety representatives, spot safety inspections will routinely be conducted by EQ Corporate Health and Safety personnel.

3.1 Random Behavior Based Safety Audits

Random Behavior Based Safety (BBS) audits are completed of individuals to pinpoint if certain tasks can be completed via a safer method. Safety on sites is part of EQ's overall Corporate Environmental Quality, Health and Safety (EQH&S) Program, which recently received ISO 9001, 14001 & 18001 certifications.

3.2 Chemical Hazards

Chemical hazards may be encountered during field work activities where there is the potential for exposure to impacted soil and materials. Polychlorinated Biphenyls (PCBs), Volatile organic compounds, petroleum hydrocarbons and metals (arsenic & cadmium) could potentially be encountered. Table 1.0 (*Refer to Appendices*) provides occupation exposure limits and toxicological properties for constituents of potential concern (COPCs) identified for the site. Pathways which are known to or may exist on and off the site include: ingestion, direct contact, and inhalation of dusts when disturbing surfaces as part of typical work.

3.3 Physical Hazards

Physical hazards may be encountered as a result of environmental conditions, equipment operations, work procedures, and work practices. Physical hazards anticipated to be encountered include: hand tool use, cold stress, noise exposure, material handling, underground utilities, moving vehicles & equipment, water hazards, uneven terrain, hot work and slip, trip, and fall hazards. Physical hazards that may be encountered while performing fieldwork are identified as follows. *(NOTE: Refer to Table 4: Summary of Biological /Physical Hazards and Risk and Section 7.4 for Heat and Cold Stress)*

3.3.1 Unknown Underground Utilities

Before conducting work that may interfere with underground utilities, EQ Northeast will obtain utility information from property owners including Bayer MaterialScience for on-site work, and private property owners for off-site work. EQ has also contracted with a private 3rd party geophysical survey company, Naeva Geophysics, for independent mark out of all onsite utilities. It is expected that the only active subsurface utility in the work areas is the active fire loop. Recognize that although efforts will be made to accurately identify and locate underground utilities, it is possible that unmapped and/ or unidentified underground utilities exist at the job site.

If any underground utility or feature is encountered, work should cease immediately. The Project Manager should promptly be contacted and informed of the situation. Work may not resume until an adequate determination of the underground utilities purpose and assessment of its reactivity hazard can be completed. The EQ's Project Manager will inform site personnel when it is safe to resume work.

3.3.2 Fire Protection and Hot Work

Procedures relating to fire/ explosion hazards and safety controls for the Facility include:

- Hot Work is not permitted on the Facility without approval by the Health and Safety Officer. The EQ Northeast Site Supervisor will direct the location where hot work is to be conducted. A minimum of two 30lb fire extinguishers must be placed within 75-feet of hot work activities while conducting on-site and off-site hot work.

- A portable multi-purpose (ABC) dry chemical fire extinguisher will be maintained in work vehicles at all times. Fire extinguishers will be placed within 75-feet of active work areas where flammable/ combustible materials and an ignition source are present.

- Field vehicles will not be parked in areas where dry brush is tall enough to contact the underside of field vehicles and potentially ignite and cause a grass fire.

3.3.3 Traffic Control

All on-site personnel and subcontractors must obey traffic controls established by Bayer MaterialScience and/or EQ Northeast, which may include a speed limit, and traffic stop and yield signs. The SSHO will be present on-site during all remediation-related site activities. The SSHO will prevent unauthorized access to the site during the work-day period, and will monitor and ensure compliance with the specified work zone restrictions, traffic plan and other health and safety requirements. EQ will also utilized flaggers for truck access/egress.

Site access will be via the existing gate from New South Road. The Gate will be locked at all times while work is in progress. Truck entering and exiting signs will be posted along New South Road.

3.3.4 Noise Exposure

The operation of heavy and other equipment may generate dangerous noise levels and will require hearing protection to be used by site personnel whenever noise exposures exceed 85 decibels on the A-weighted scale. Noise exposures of 85 dBA will be assumed to be present whenever, in normal conversation at 3 feet apart, voices must be raised in order to be heard.

3.3.5 Inclement Weather

The majority of the work will be performed outdoors. In cases of inclement weather (for outdoor work) or other applicable environmental conditions (high winds, rain, lightning, earthquake, etc.), the following safety instructions are required:

- Presence of strong winds will require that affected work activities at elevated work locations cease. Such locations may include roofs, ladders, scaffolds, platforms, etc.). The use of equipment whose safe operation can be affected by high winds must also cease.

- Strong winds may also generate excessive dust. Work activities in areas where dust generation or migration is excessive, must cease until more favorable conditions are present or engineering methods can be applied to prevent the generation and migration of dust.

- The presence of lightning will cause outdoor work activities to cease. Work will not resume until no lightning is observed in the area for at least 10 minutes.

3.3.6 Fall Protection

EQ employees conducting work six feet or more above the ground will use appropriate fall protection devices. Fall protection equipment includes a safety harness around the waist or torso, a lanyard or lifeline that fastens the employee and to a substantial anchorage or safety block, and any necessary fittings. All fall protection will comply with specifications as outlined in 29 CFR 1926.104. EQ will adhere to the following policies and procedures for work at excessive heights:

- A competent person will be assigned to:
  - Recognize fall hazards.
  - Warn employees if they are unaware of a fall hazard or are acting in an unsafe manner.
  - Maintain verbal communication.
  - Inspect and monitor the fall protection equipment and work activity

3.4 Personal Protective Equipment

This Plan addresses exposure to contaminants at levels requiring Level D and Level C.

The specific levels of protection and necessary Personal Protective Equipment (PPE) for each have been divided into the categories according to the degrees of protection afforded. Level D protection may consist of the following:

- Work Clothes
- Steel Toe/Shank Boots With Rubber Overboots
- Leather Work Gloves
- Hard Hat
- Safety Vest (highly visible reflective)
- Eye Protection (safety glasses with permanent side shields)
- Hearing Protection
- Chemical Resistant Coveralls (*work coveralls, tyvek or poly-coated tyvek*)
- Chemical Resistant Outer Gloves (*nitrile*)
- Chemical Resistant Inner Surgical Gloves

Level C protection may consist of Level D protection with the following additions:

- Air purifying respirator (APR), half-face or full-face (depending on the required protection factor) with combination organic vapor/high efficiency particulate air cartridges (P100)
- Disposable poly-coated tyvek coveralls
- Cellular phone during work activities (at least one phone among field workers that are in contact by other means (i.e. audio, visual, or radio) with each other).

Table 2.0 provides an overview of the protection program designed for the site and lists site activities to be conducted and primary level of protection. The primary level of protection is defined as that level at which work commences.

Table 2.0 Level of PPE per Task

MAJOR ACTIVITIES	LEVEL OF PPE
Mobilization and Site Preparation	Level D
Site Preparation	Level D
Remedial Work	Level D
Demobilization	Level D

3.4.1 Availability of Equipment

All subcontractors are responsible for providing their employees with the appropriate personal protective equipment and enforcing health and safety requirements. EQ Northeast will supply their employees with the appropriate personal safety equipment and protective clothing. EQ Northeast will also provide hard hats and safety glasses. Bayer MaterialScience will provide contractors and subcontractors with known information regarding potential environmental health and safety hazards due to the presence or potential presence of oil or hazardous materials. EQ Northeast and its subcontractors will verify that safety equipment and protective clothing are properly used and maintained.

3.4.2 Reassessment of Level of Protection

The level of protection provided by PPE selection will be upgraded or downgraded based upon changes in site conditions or the evaluation of air monitoring data and the judgment of the health and safety personnel. When a significant change occurs, the hazards will be reassessed.

Some indicators of the need for reassessment are:

- Change in job tasks during a work phase.
- Change of season/weather.
- When temperature extremes or medical considerations limit the effectiveness of PPE.
- Contaminants other than those previously identified are encountered.
- Change in ambient levels of contaminants.
- Change in work scope, which affects the degree of contact with contaminants.
- Capacity of personnel to work in PPE.

If work conditions advocate an upgrade in PPE, work will cease until the conditions have been re-evaluated and the correct level of PPE determined and approved by the EQ Northeast Project Manager.

3.5 Offsite Transportation of Waste

During offsite transport of waste, the EQ Transportation & Disposal Coordinator (T&D Coordinator) will ensure completion and filing of all Bills of Lading (BOLs) and Hazardous Waste Manifests, and to ensure all transport trucks are properly licensed and permitted for the wastes they are transporting. The T&D Coordinator will compile a Daily Shipping Log and update the ongoing project log of materials shipped offsite (haz and nonhaz), including manifest/BOL numbers, truck numbers, date, times and facility weights.

4.0 Exposure & Medical Monitoring

Under the requirements of 29 CFR 1910.120 (f)(2), EQ Northeast personnel who are or may be exposed to hazardous substances or health hazards at or above the established permissible exposure limit, above the published exposure levels for these substances, without regard to the use of respirators, for 30 days or more a year shall receive an annual medical assessment by licensed professional medical personnel in compliance with 29 CFR 1910.120 (f)(4).

5.0 Engineering Controls & Safety Work Practices

Personnel working on the site will work in a safe manner at all times and ensure that a safe work environment is maintained. This includes, but is not limited to, the following actions.

5.1 Trenching and Excavation

Prior to performing site excavation work, EQ will utilize a private utility locator to locate and identify all subsurface utilities.

In addition EQ will identify, via the baseline site survey, exact excavation limits and physically mark out the excavation areas. Upon identifying the specific excavation limits, EQ will install safety fencing as necessary to protect against fall hazards associated with deeper excavations.

The sides of all excavations in which employees will be exposed to the danger of moving ground will be adequately sloped, shored or contained within a trench box. The shallower excavations, 0'-10' below ground surface, will be excavated utilizing approved sloping and step back techniques to conform with applicable OSHA regulations.

Trenching and Excavating activities will be conducted in accordance with applicable Federal (OSHA) and the State of New York Standards and Codes. In addition, EQ Northeast will implement the following safe work practices:

- EQ will berm the edges of the excavation areas as necessary to minimize any potential storm water infiltration into the excavation areas in the event of a storm event.
- Excavated material will be stockpiled at least two feet from the sides of the excavation.
- Barriers will be placed at the excavation adjacent to any pedestrian or vehicle thoroughfares.
- Ramps or ladders will be used to provide access and sufficient egress to the excavations.
- Prior to entry, air monitoring will be performed to verify that oxygen, flammable and toxic levels are within accepted limits. Periodic air monitoring (at least hourly) will also be performed to maintain safe entry conditions.
- Utility companies will be contacted and underground utilities located prior to excavation.
- A "competent person" as defined by OSHA 29 CFR 1926.650 will inspect excavations greater than four feet deep.
- Equipment must maintain a minimum clearance of 20 feet from any overhead electrical cables. If the lines are padded, the clearance can be reduced to 10 feet.

5.2 Electrical Hazards

Electrical installations will comply with the State Code, National Electrical Code (NEC) and the United States Coast Guard Regulations. In addition, EQ Northeast and its subcontractors will implement the following safe work practices:

- Portable generators and welding machines will be grounded.
- Extension cords will be the hard usage type or better, and will contain the number of conductors required for the service plug and the equipment ground wire.
- Electrical equipment will be connected to a Ground Fault Circuit Interrupter (GFCI).
- Electrical tools, fuse boxes and other equipment with conducting surfaces that could be energized, will be grounded.

5.3 Hand and Power Tools

Hand and power tools will be kept in good repair and used only for the purpose for which designed. Tools that have defects that will impair their strength or render them unsafe for use will be removed from service. In addition, EQ Northeast and its subcontractors will implement the following safe work practices:

- Power tools will be inspected, tested and determined to be in safe operating condition and properly maintained.
- Circular saws will be equipped with guards that automatically and completely enclose the cutting edges, splinters and anti-kickback devices. Power saws will not be left running unattended.
- Safety clips or retainers will be installed and maintained in pneumatic impact tools.
- Pressure will be shut off and exhausted from the line before disconnecting the line from any tool or connection. Safety lashing will be provided at connections between tool and hose, and at all quick makeup type connections.
- Impact wrenches will be provided with a locking device for retaining the socket.
- The idle speed of chain saws will be adjusted so that the chain does not move when the engine is idling.
- Proper PPE will be worn for all power equipment operation.

5.4 Heavy Equipment

Heavy equipment will be inspected daily to assure that parts, equipment and accessories that affect safe operation are in proper operating condition and free from defects. Defects will be corrected before the equipment is placed in service. In addition EQ Northeast and its subcontractors will implement the following Safe Work Practices:

- Hydraulic and pneumatic components will be left in a down or "dead" position when not in use.
- Foot traffic will be restricted while heavy equipment is in operation.
- Earthmoving equipment will be equipped with rollover protection

5.5 Engineering Controls

To prevent injuries and to minimize potential exposure to contaminated soil and wood blocks, the following Safe Work Practices will be adhered to by all personnel at the site.

- Morning safety meetings will be conducted for all site personnel who will sign a daily Project Sign-In Sheet. A Project Sign-In Sheet is provided in Appendix D.

- Site activities will be suspended during thunder and lightning storms, if directed by EQ Northeast.

- Eating, drinking, chewing gum or tobacco, taking medication and/or smoking is prohibited in any area where the possibility of contact with the contaminated soil exists.

- All contact with potentially contaminated soil, wood blocks and concrete will be avoided unless appropriate Personal Protective Equipment (PPE) is donned. Site personnel will avoid, whenever possible, kneeling on the ground, leaning or sitting on drums, equipment or the ground.

- Personnel leaving contaminated areas will follow the decontamination procedures set forth in this plan prior to eating, drinking or leaving the site.

- A stocked industrial first aid kit will be located and accessible on site.

- No horse-play will be allowed on site.

- All accidents and incidents will be immediately reported to the Project Manager or designated Health and Safety Officer.

- A "competent person" as defined by 29 CFR 1926.650 will inspect excavations greater than 4 feet in depth.

- Eyewash stations will be located at active work areas, or any other areas as determined by the Project Manager or Health and Safety Officer.

- Any individual who fails to adhere to this plan will not be permitted to work at the site.

5.6 Hazard Communication

5.6.1 Safety Meetings

EQ Northeast Personnel must attend safety meetings as follows: Prior to assignment (i.e. employees who have not performed these tasks before), annually and as required due to changing site conditions, new procedures or equipment, etc. The following routine tasks are performed by EQ Northeast Personnel at the site:

5.6.2 Material Data Safety Sheets

Copies of Material Safety Data Sheets (MSDSs) for hazardous substances that may be encountered at this site will be maintained at the job site in a 3-ring binder.

In addition Table 1.0 *(see appendix)* provides occupation exposure limits and toxicological properties for constituents of potential concern (COPCs) identified for the Facility.

5.6.3 Hazardous Substances

Applicable personnel will be informed of the hazardous substances that they may encounter through review of the HASP and attendance at safety meetings.

5.6.4 Container labeling

All containers will be properly labeled with the product identity, hazard ratings and PPE requirements indicated.

5.7 Reporting of Hazards

Field Personnel are required to immediately report unsafe work conditions or observed unsafe work practices to the Site Health and Safety Supervisor or Project Manager. Periodic safety inspections may be performed by the Site Health and Safety Supervisor and/or Project Manager.

5.8 Personal Protective Equipment (PPE)

- PPE is required for personnel who are working in contaminated or potentially contaminated areas and/or near operating machinery.
- Personnel are responsible for the proper inspection, use, storage, and cleaning of required PPE.
- Torn or damaged PPE will be immediately repaired or replaced.
- Contaminated PPE will not be removed from the Facility until it has been decontaminated or appropriately packaged, labeled (if required), and disposed of (as a contaminated waste, if required).
- PPE will be selected on a task-specific basis through the completion of a hazard analysis.

5.9 Sanitation

- Porta-John's and personnel decon sinks are available at the site.
- Personnel working in contact with contaminated or potentially contaminated soil must practice acceptable decontamination procedures before entering non-contaminated areas of the Facility and when leaving the site.
- Personnel must wash their hands and face prior to breaks and lunch.
- A break area will be identified.

5.10 Work Zones and Decontamination

5.10.1 Site Control Work Zones

Work and support zones will be established in order to contain contamination within the smallest area possible. EQ Northeast will verify that each employee has the proper personal protective equipment for the area or zone in which he/she is to perform work. The following areas will be delineated by the on-site Project Manager as necessary to maintain cleanliness:

- Exclusion Zone
- Contamination Reduction Zone
- Support Zone

These areas will conform to guidelines as published by USEPA: "Standard Operating Safety Guidelines," 1984 as published by NIOSH/OSSA/USCG/USEPA in Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities: 1985. The areas will be delineated by tenting and poly sheeting.

- The Exclusion Zone is the area where contamination is either known or likely to be present, or because of activity, will provide a potential to cause harm to personnel. Entry into the Exclusion Zone requires the use of PPE.

- The Contamination Reduction Zone is the area where personnel conduct personal and equipment decontamination. It is a buffer zone between contaminated areas and clean areas.

- The Support Zone is situated in clean areas where the chance of encountering hazardous materials or conditions is minimal.

Under no circumstances will site activities be conducted where there is a question as to the location of underground natural gas or electrical lines.

5.10.2 Decontamination [*Refer to Appendix H*]

Personnel and Small Equipment

Personnel entering the Exclusion Zone must check in at the entrance and, at a minimum, wear Level "D" protection as described above. When exiting the Exclusion Zone, tools and other non-essential safety items will be removed in the Contamination Reduction Zone. For levels "C" and "D", outer garments will be decontaminated in the Contamination Reduction Zone by washing with a detergent solution, followed by a water rinse. On crossing the boundary of the Exclusion Zone, personnel may remove and discard outer boot covers and outer gloves. The next step is to remove outer garments and protective clothing. The last step is to remove eye protection. A portable wash water station will be provided for washing face and hands. The eye wash station will also be located as close to the source of the hazard as practical.

Prior to leaving the site at the end of the day, protective clothing will be washed and rinsed to remove potentially contaminated sediments from boots, Tyvek suits, and gloves. The clothing will be removed and properly stored or disposed of in designated containers.

The following decontamination sequences will be followed, as appropriate, for the level of protection being used:

- **Level "D" Decontamination**
  Step 1 Remove and dispose of outer boot covers.
  Step 2 Wash and rinse outer gloves.
  Step 3 Remove outer gloves.
  Step 4 Remove chemical protective coverall.
  Step 5 Remove surgical gloves.
  Step 6 Wash and rinse hands.

- **Level "C" Decontamination**
  Step 1 Remove and dispose of outer boot covers.
  Step 2 Remove and dispose of outer gloves.
  Step 3 Remove chemical resistant coveralls
  Step 4 Remove air-purifying respirator.
  Step 5 Remove and dispose of inner gloves.
  Step 6 Wash and rinse hands.

Heavy Equipment Decontamination

EQ Northeast will provide for equipment decontamination station within the Contamination Reduction Zone for removing soil from all vehicles and equipment leaving the work area. Large pieces of equipment will require thorough decontamination. Prior to leaving the Contaminant Reduction Zone, personnel appropriately suited and protected will physically remove large pieces of mud, dirt, dust, and splashes with long-handled, soft-bristled brushes and metal scrapers. The station will include a high-pressure wash area for equipment and vehicles and a steam-cleaning system for use after the mud and/or dirt has been cleaned from the equipment. The decontamination wastewater will be collected in storage tank(s).

Disposition of Decontamination Wastes

All equipment and solvents used for decontamination will be decontaminated or disposed of properly as per site-specific protocols. Commercial laundries or cleaning establishments that decontaminate protective clothing or equipment will be informed of the potentially harmful effects of exposures.

Work Clothes

Home laundering of work clothing will not be allowed. EQ Northeast will provide for laundering of work clothing. If work clothing becomes grossly contaminated with a hazardous material, the uniform will be disposed of in the appropriate manner.

5.11 Security

Site security of EQ work areas shall be maintained by EQ Northeast during work hours. EQ will undertake measures to protect all existing security fencing encompassing the site. Temporary fencing, gates and barriers will be provided, installed and maintained by EQ for the duration of the project in accordance with the Technical Specifications. EQ will install all signage and temporary barriers as per the Technical Specifications for the Project. Vehicular access to the site, other than designated parking areas, shall be restricted to authorized vehicles only.

EQ will maintain a log of security incidents and visitor access granted. Visitors will be required to sign the daily sign-in log located in the EQ job trailer. The project site will be posted, "Warning Hazardous Work Area, Do Not Enter Unless Authorized".

6.0 Contractor Safety

Contractor companies will be evaluated by EQ Northeast prior to selection for on-site or off-site work. Contractor companies may also be subject to evaluation and approval by Bayer MaterialScience. Some health and safety considerations that may be evaluated include:

- Company experience, expertise and reputation
- Experience and qualifications of personnel
- Written health and safety program
- OSHA citation and H&S-related litigation history

6.1 Health and safety Plan Review and Documentation

Contractors involved in the investigation of hazardous wastes working on-site or those working off-site that are directly exposed to impacted or potentially impacted groundwater or soil must comply with the following provisions:

- Provide HAZWOPER training documentation and medical fitness for duty documentation (as applicable) to EQ Northeast prior to initiating work.

- Provide and implement an Emergency Response Plan addressing the hazards associated with the work activities that they will be performing.

- Sign a statement attesting to their having read and understood the HASP and agreement to comply with the plan (*Appendix A*).

- Contractors may be required to submit a copy of their corporate health and safety manual to EQ Northeast upon request.

6.2 General Safe Work Practices

Contractors must comply with the provisions of the HASP including, but not limited to, the following:

- All Contractors will obey the directives of Bayer MaterialScience and EQ Northeast.

- Contractor personnel who do not comply with the safety requirements may be immediately dismissed as required by Bayer MaterialScience and/ or EQ Northeast.

- Onsite Contractor personnel will work in teams of at least two persons (buddy system) and visual contact between team members must be maintained. EQ Northeast or Bayer MaterialScience personnel may be utilized to complete a team, provided advance notice is given to EQ Northeast

- Either EQ Northeast Personnel or Bayer MaterialScience Personnel must escort on-site subcontractor personnel unless they have been issued clearance by Bayer MaterialScience to conduct work without such an escort.

6.2 EQ Contractor EHS Manual *(Refer to Appendix I)*

The EQ Contractor Environmental Health & Safety Manual (EHS Manual) contains policies and procedures applicable to all contractors and contract employees regarding safety, health, and environmental responsibilities on EQ premises and for work performed for EQ on their jobsites.

Contractors are required to review with their employees the sections of the EHS Manual that are appropriate to the work to be performed. Sections of the EHS Manual will apply to contractors working in all of EQ's premises, whether owned or leased, as well as contractors working on EQ projects at EQ customer sites.

The EHS Manual does not replace existing site operational specifications. Approved, site-specific procedures must be followed where applicable. In addition the EHS Manual does not relieve contractors of their responsibility for safety, health, and environmental compliance under law, code, ordinance, or statute.

7.0 Emergency Response Plan

This section outlines EQ Northeast's Emergency Response plan in accordance with 29 CFR 1910.120 (l)(1). For major emergency events (e.g. large fires, explosions, and uncontained chemical spills) personnel will be evacuated to a designated refuge area and local fire, police, and/or emergency medical service personnel will be notified. For other than small fires and contained spills, local emergency response agencies will be relied upon to provide containment and control functions.

- No visitors will be permitted on-site unless cleared by EQ Northeast and provided with the site-specific emergency response procedures.

7.1 Emergency Communications

Communications are critical to allow for expedient communication of operational instructions, safety information, and emergency alerts, and will include:

- Cellular and phones may be used for emergency communications ONLY. Unauthorized use of cell phones will result in the loss of cell phone privileges while on site. At no time shall cell phone use and/or texting be conducted while operating equipment or performing work activities on the site in general.

- Two-way radios may serve as an alternate method for field and emergency communications. Emergency communication has priority over all other communications.

- The 911 Emergency Number System will be used to contact the appropriate assistance (medical, fire, police) for any type of site emergency that is beyond the capabilities of personnel present.

- If personnel are working in different locations, and are not in visual contact, two-way radios may be used to keep teams informed of emergency situations.

- Hand signals to communicate emergency conditions include:

    - **Clutching Throat** – CANNOT BREATHE
    - **Thumbs Up** – OK/ AFFIRMATIVE
    - **Thumbs Down** – TROUBLE/ NEGATIVE
    - **Wave Arms Above Head** – NEED HELP

The standard order of emergency communications is as follows:

1. Alert all other field personnel of the emergency situation, including response instructions (i.e. evacuate, need help, etc.) and evacuate if necessary.

2. Summon outside emergency medical service (EMS) (if required) by calling 911.

3. Summon outside non-medical EMS service (if required) by calling 911.

4. Notify the Site Health and Safety Supervisor (if on-site, notify Bayer MaterialScience), inform of the situation and obtain further instructions.

5. The Site Health and Safety Supervisor will promptly inform the Project Manager and/or Bayer MaterialScience Project Management.

7.2 Emergency Supplies

Emergency supplies will be maintained in the work vehicle and will include:

- First Aid Kit

- Emergency Eye Wash supplies
- Portable multi-purpose (ABC) dry chemical fire extinguisher (to be kept within 75-feet of work activities wear flammable/ combustible materials and an ignition source are present (refer to *Section 3.2.3*)
- Chemical Spill Containment Kits will be stored in the immediate vicinity of chemicals used for field soil analysis.

Field personnel are responsible to maintain emergency supplies in work vehicle.

7.3 Emergency Response Procedures

This section addresses personnel response procedures to non-medical emergencies. If an emergency situation is beyond the capabilities of field personnel, the appropriate emergency agency should be immediately contacted by calling 5-1111. The Project Manager will promptly be notified in the event of any emergency response.

7.3.1 Response to Fire

EQ Northeast employees will not respond to explosives fires. In the event of an explosives fire, EQ Northeast employees will evacuate to a refuge area and contact Bayer MaterialScience immediately. In the event of a fire, the following procedures will be implemented:

- In the event of a large fire (beyond the immediate control of a small fire extinguisher):
- Notify all field personnel via emergency communications
- Immediately evacuate the work area and reassemble at a predetermined safe, upwind location (to be announced at daily health and safety meetings)
- Notify the fire department by calling 911.
- Notify EQ Northeast Management (first) and then Bayer MaterialScience.
- Personnel will not re-enter the fire area. Personnel will remain in a safe location until the fire department arrives and gives further instructions, or as directed by Bayer MaterialScience.
- In the event of a small fire:
    - Notify all site personnel and Bayer MaterialScience –site via emergency communications.
    - Trained personnel will extinguish the fire using fire extinguishers.

7.4 Emergency Medical First Aid Procedures

This section addresses personnel response to medical emergencies.

If an emergency situation is beyond the capabilities of field personnel, the appropriate emergency agency should be immediately contacted by calling 911. The Project Manager will promptly be notified after any medical emergency. [Refer to Figure 1 for Hospital Location and Route Map]

7.4.1 Heat Exhaustion

- If the victim is pale, has faintness, cramps, and is actively sweating (not merely wet from previous sweat), the victim must be moved to a cool place as soon as possible.
- Remove as much clothing from the victim as possible.
- Allow victim to take in electrolyte replacement fluids.
- Monitor the victim for shock and any further systems of failure to cool down.
- Seek professional medical assistance if necessary.

7.4.2 Heat Stroke

- If the victim has dry, flushed skin, loss of consciousness, dilated pupils, or muscular twitching, the victim must be cooled as rapidly as possible.
- Remove outer clothing and place the victim under ice-cold water, cold packs, or cold towels immediately.
- Fan air across the victim to assist in evaporative heat loss.
- Decontaminate the victim as required and call 911 for immediate medical assistance.

7.4.3 Hypothermia

- If victim is shivering uncontrollably, has sluggish thinking, difficulty speaking, muscular rigidity, blue puffy skin, poor coordination, and/or erratic heartbeat, the victim's body trunk (only) must be warmed immediately.
- Remove outer clothing and immerse victim in warm (105°F) water or use heat packs on the body trunk.
- Alternatively, remove clothing from the victim's upper body and provide body-to-body contact for heat transfer.

- Decontaminate the victim as required and call 911 for immediate medical assistance.

7.4.4 Frostbite

- If victim has blanched skin or waxy, white skin that is firm to the touch or (more severe) firm pale or black skin and complete loss of sensation, immediately move the victim to a warm shelter.

- Warm the affected areas with warm (105°F) water. DO NOT RUB. Prevent re-freezing of affected areas.

- Seek professional medical assistance.

7.4.5 Miscellaneous Emergency Signs, Symptoms and Treatments

Table 3 provides a general summary of potential medical emergencies (not identified above) that could occur on this project.

TABLE 3
Miscellaneous Medical Emergency Signs, Symptoms & Treatments

Condition	Signs & Symptoms	Treatment
Chemical Burns	Skin redness; pain	Remove contaminated clothing; flush with water 15-30 minutes
Thermal Burns (No open blisters)	Skin redness; pain	Flush with cool water; apply moist dressing
Thermal Burns (Open blistering)	Skin red or charred	Apply dry, fluffy dressing; call EMS
Bleeding	Obvious blood loss	Apply direct pressure; call EMS
Amputation	Body part severed	Wrap part and place in ice; Call EMS; transport body part with victim to hospital
Shock	Pale or bluish skin/ lips/fingernails; very fast or slow pulse and/or breathing; confusion; enlarged pupils	Maintain temperature; elevate feet if no head injury; call EMS
Chemical Exposures	Varied	Determine chemical; remove from exposure; maintain vital signs; refer to MSDS; call EMS
Fractures, Sprains, and Strains	Pain, swelling, inability to move affected part	Immobilize affected part; apply cold packs to reduce swelling
Heart Attack	Chest pain; nausea; shortness of breath; denial	Keep victim from moving; call EMS; administer CPR if necessary
Unconsciousness	Look for injury; observe area for mechanism of injury or hazards	Move to safe place if necessary; monitor vital signs; call EMS
Stings	Allergic reaction; local pain; redness; swelling; difficulty breathing	Remove stinger with forceps; apply cold packs to reduce swelling

7.5 Incident Reporting

Promptly after any emergency incident, the Site Health and Safety Supervisor and/or Project Manager will prepare a written report of the emergency incident and initiated response. An Incident Report form is included in *Appendix E*. The EQ Northeast Project Manager will coordinate necessary reporting with Bayer MaterialScience Health and Safety Personnel as required.

7.6 Training

Training requirements of EQ Northeast Personnel and subcontractors are provided in *Section 8.0* of the HASP. Emergency Response Plan provisions and procedures will be discussed and reviewed at health and safety meetings. Personnel knowledge and Emergency Response Plan procedures will be evaluated and addressed in health and safety meetings and/or Emergency Response Plan/ HASP revisions or addendums.

7.7 Plan Review

On a periodic basis, emergency incident reports, training evaluations, personnel comments, and Facility safety inspections will be used for the critique and review of the provisions set forth in the HASP and Emergency Response Plan. This review may be performed by Bayer MaterialScience Project Management, the Project Manager or Site Engineer. Upon approval of the Project Manager, the HASP and/or Emergency Response Plan may be revised or have addenda added addressing health and safety issues or emergency response procedures that are inadequately described or provided for in the HASP.

8.0 Training

Copies of certificates of health and safety training (e.g. HAZWOPER) for field personnel will be reviewed and maintained by EQ Northeast and will be made available for inspection as requested. Personnel will not be allowed to perform field activities until such documentation has been presented to EQ Northeast.

8.1 HAZWOPER Training

All personnel performing on-site field activities or performing off-site field activities, if they involve investigation of hazardous waste, must have completed HAZWOPER training as required by 29 CFR 1910.120 (e)(3). Required HAZWOPER training includes:

- Basic Site Personnel Training: 40-hours of off-site training and 3-days of supervised field experience [29 CFR 1910.120 (e)(3)(i)]

- Management and Site Supervisory Training: 40-hours of off-site training plus 8 additional hours of manager and supervisory training [29 CFR 1910.120 (e)(4)]. Additionally, management and supervisory personnel must have sufficient experience to perform the requirements of their positions.

- Refresher Training: 8-hours of refresher training will be required on an annual basis [29 CFR 1910.120 (e)(8)]

8.2 Authorized Facility Visitor Training Requirements

Authorized Facility visitors and personnel who are performing field activities under the direction of EQ Northeast at the Facility may be required to attend a safety orientation meeting administered by Bayer MaterialScience (*Section 8.3.1*), complete a Health and Safety Plan Affidavit form (*Appendix A*).

8.3 Safety Meetings

8.3.1 Project Safety Orientation Meeting

Personnel required to attend a safety orientation meeting will do so prior to initiating work. The meetings will be conducted by EQ Northeast. The following topics may be discussed during the meeting:

- Project Background
- HASP provisions, including the Emergency Response Plan
- Facility layout and emergency documentation/ information locations
- Anticipated hazards and required PPE
- Evacuation and emergency communication procedure
- Other specific health and safety requirements

Project safety orientation meetings will be documented by Bayer MaterialScience and/or on the EQ Northeast form provided in *Appendix F*, as appropriate. Additionally, new personnel, subcontractors and visitors will be required to complete a HASP Acknowledgement and Compliance form provided in *Appendix A*. Bayer MaterialScience safety orientations must be performed annually.

8.3.2 Daily Safety Meetings/Tool Box Talks

Personnel will be required to attend a Daily Safety Meeting/Tool Box Talk each morning prior to initiating daily work activities. The meetings will be conducted by the Health and Safety Officer. Daily Safety Meetings/Tool Box Talks meetings will be documented by EQ Northeast as appropriate.

8.3.3 Health and Safety Meetings

Health and safety meeting will be held for required personnel prior to the commencement of work and will be conducted by the Project Manager, Site Health and Safety Supervisor or authorized EQ Northeast personnel. The purpose of these meetings is to:

- Describe the daily assigned tasks and their potential hazards.
- Coordinate activities.
- Identify methods and precautions to prevent injuries.
- Plan for emergencies.
- Describe any changes in the HASP.
- Get personnel feedback on conditions affecting health and safety.
- Get personnel feedback on how well the provisions of the HASP are working.

Health and safety meetings will be documented using the form provided in *Appendix F*. These forms will also serve as a sign-in sheet for personnel performing work activities.

8.4 Medical Response Training

EQ Northeast personnel working on-site or off-site for more than 30 days will maintain current CPR and first aid training. At least one person with current CPR and first aid training will be present during field work activities.

9.0 Air Monitoring Plan (AMP)

EQ Northeast will implement an Air Monitoring Plan (AMP). The purpose of the AMP is to determine that the appropriate level of personal protective equipment is used, document that the level of worker protection is adequate, and to assess the migration of contaminants to off-site receptors as a result of site work. EQ Northeast will conduct both real-time and documentation monitoring.

EQ will undertake appropriate measures during implementation of the remedial activities to limit the generation of noise, vapors/odors, and dust to within acceptable levels. The magnitude and extent of vapor/odor and dust control measures required will be based on the air monitoring results.

The following air monitoring procedures will be implemented at the site:

- During the progress of active remedial work, EQ Northeast will monitor the quality of air in and around each active hazardous operation with real-time instrumentation prior to personal entering these areas.

- Real-Time air monitoring will be conducted by a minimum of one dedicated person with communication to the Safety Officer whenever intrusive activities (such as excavation) are performed in the exclusion zone. After completion of intrusive activities involving contaminated materials and removal of the exclusion zone, air monitoring will be discontinued.

- Air monitoring equipment will be operated by personnel trained in the use of the specific equipment provided and will be under the control of the Safety Officer.

9.1 Action Levels

PARAMETER	ACTION LEVEL	ACTION
Total Particulates	2.5 times background and/or greater than 150µg/m³	Work ceases until mitigated via dust control
Visible Dust	Visible dust as determined by Engineer	Work ceases until mitigated via dust control
Total Organic Vapors	5 ppm at work zone 25 ppm	Upgrade to Level C Work ceases until mitigated
Odors	Noticeable odors outside the exclusion zone as determined by the Engineer	Work ceases until mitigated
Refer to Table 1.0 Constituents Of Potential Concern [arsenic, copper, zinc, hexavalent chromium, trivalent chromium]	Within 50% of the PEL/TLV Within 50% of the air purifying respirator Maximum Use Limit.	Upgrade to Level C if within 50% of PEL/TLV Work ceases until mitigated via dust control
Oxygen	NOT within 19.5%-23.5%	Work ceases until mitigated
Lower Explosive Limit (LEL)	Within 20% of the LEL	Work ceases until mitigated
Hydrogen Sulfide	> 5 ppm	Work ceases until mitigated

9.2 Real-Time Monitoring

The purpose of real-time monitoring will be to determine if an upgrade (or downgrade) of PPE is required while performing on-site work and to implement engineering controls, protocols, or emergency procedures if action levels are encountered.

- Real-time monitoring will be conducted using the following equipment:
  - (1) Photovac TIP total organic vapor analyzer (or equivalent) for each hazardous work zone operation.
  - MiniRam Model MIEPDM-3 (or equivalent), real-time particulate monitor and personal DataRam.
  - In addition EQ will utilized a four gas meter to make oxygen, carbon monoxide, hydrogen sulfide and LEL readings, for any activity that is to be conducted in a confined or poorly-ventilated area.

- If action levels are exceeded for dust, EQ will employ dust suppression techniques (refer to section 9.5) to bring concentrations down to acceptable levels.

9.3 Community Air Monitoring

Preferred Environmental (EQ's Subcontractor) shall be responsible for initiating and implementing the site-specific Community Air Monitoring Plan (CAMP). Monitoring results will be maintained on-site and also communicated to EQ Northeast. Preferred will also implement the perimeter/community air monitoring program which will also require the use of direct-reading instruments (installed at the breathing height (3 foot+) mounted on tripods or other structure to measure total organic vapor and particulate levels at four (4) designated air monitoring sample stations, including:

- One, upwind of site activities
- Two, at the downwind perimeter of the Exclusion Zone
- One, fixed location along the fence line adjacent to the nearest occupied structure.

Preferred will record the results of the perimeter/community air monitoring as follows:

- By monitoring instruments (dataloggers) capable of continuously obtaining instantaneous readings and recording 15-minute running average concentrations (calculated for continuous 15-minute increments)
- Manually, at a minimum frequency of once per hour, by Preferred technician.

The hourly readings and output of the continuous readings recorded via the monitoring instruments will be sent by Preferred technician to NYSDEC, NYSDOH, Bayer, the Engineer, and EQ once per week and will include the readings for the previous week's monitoring.

9.4 Exceedance Reporting

In the event of a sustained exceedance (4 continuous readings via running average or 2 continuous readings via manual instrumentation readings) of an air monitoring action level for either total organic vapors or particulates, the air monitoring technician will notify Bayer and NYSDEC (via telephone) and the Engineer (in person) once the sustained exceedance is observed (real-time). Within 24 hours of the exceedance, the technician will send a follow-up e- mail to NYSDEC, Bayer, and their Engineer that summarizes the data, the cause of the exceedance, and corrective measures implemented (or to be implemented) as a result of the exceedance.

9.5 Dust Control

EQ will mitigate dust emissions in accordance with the Project CAMP. EQ will also address third party complaints upon the directions of the Site Engineer. Reasonable fugitive dust suppression techniques will be employed during all site activities which may generate fugitive dust.

The following fugitive dust suppression and particulate monitoring program will be employed at the site:

- Applying water on haul roads.
- Wetting equipment and excavation faces.
- Spraying water on buckets during excavation and dumping.
- Hauling materials in properly tarped or watertight containers.
- Restricting vehicle speeds to 10 mph.
- Covering stockpiles and material while not active.
- Reducing the excavation size and/or number of excavations.

10.0 Confined Space Work

EQ Northeast will evaluate the work areas and determine if there are any permit-required confined spaces. If EQ Northeast determines that personnel will need to enter a permit-required confine space, then entry will be performs in accordance with the EQ Northeast written Confined Space Entry Program. Prior to entry, EQ Northeast will provide a copy of its written confined space program and documentation of effective confined space entry training in accordance with OSHA requirements. Training documentation must demonstrate training is current for all employees participating in the confined space entry permit.

The EQ Safety Officer will communicate all known hazards to the responsible Entry Supervisor. Personnel, equipment, and supplies needed for entry will be present at the confined space before beginning work. The EQ Northeast will utilize their Confined Space Entry Permit, which includes all items required by OSHA. If space or work conditions change, the Entry Supervisor will terminate work and issue a new permit.

11.0 Railroad Safety

All employees with the potential of being closer than 25 feet from any live operating track must receive. Each employee must understand the following:

- never foul any track without protection provided by NYA;
- immediately clear tracks upon signal from watchman;
- never return to tracks until clear signal is given by watchman: and
- follow all NYA safety rules and instructions, including the NYA Contractors Handbook.

The two most common dangers involved with working on or about railroad tracks are moving trains and electrical power lines. The following procedures must be followed.

- Clear the tracks when a train approaches from either direction. A gang watchman will signal that a train is approaching by blowing a whistle or air horn, and by raising a black and white signal disc overhead.

- To avoid the dangers from electrical hazards, stay at least 15 feet away from any energized line.

- Do not approach closer than 15 feet to an electrical wire unless a class A employee tells you it's is de-energized and properly grounded and shows you the grounding.

- Vehicles entering and leaving will be crossing a live track and must stop, look in both directions and proceed with caution.

12.0 Posting Regulations

EQ Northeast will post signs at the perimeter of the Exclusions Zone that state "Warning, Hazardous Work Area, Do Not Enter Unless Authorized". In addition a notice directing visitors to sign-in will be posted at the project site.

APPENDIX A

HEALTH AND SAFETY PLAN AFFIDAVIT

Health and Safety Plan Affidavit

Project Name: Bayer MaterialScience Site
Project Location: Hicksville, New York
Project Activity: **Remediation Project**

I,_____, have read and understand this Health and Safety Plan and am familiar with the operating safety procedures mentioned within. I agree to adhere to all operating safety procedures and any additional instructions or information given in the Health and Safety Plan. Any questions that I may have concerning this Health and Safety Plan will be directed towards the on-site Health and Safety Officer.

_____
Name (Print)

_____
Title

_____
Signature

_____
Date

APPENDIX B

PROJECT PERSONNEL & EMERGENCY CONTACT INFORMATION

PROJECT PERSONNEL AND EMERGENCY CONTACT LIST

EMERGENCY CONTACTS

NAME/ AGENCY	NUMBER
Local emergency medical, fire & police	**911**
NSLIJ Plainview Hospital, 888 Old County Road, Plainview, NY	**Emergency (516) 719-2336** **Non-Emergency(516) 719-3000**
Poison Control Center	**(800) 222-1222**
Chemtrec	**(800) 424-9300**
DOT Hotline	**(202) 366-4488**
EPA RCRA Hotline	**(800) 424-9346**
National Response Center (NRC)	**(800) 424-8802**
Center for Disease Control (CDC)	**(404) 488-4100**

Project Contacts

Title/Name	Company/ Address	Number
EQ Northeast Company Health and Safety Manager **Ed Thornlimb**	EQ Northeast 185 Industrial Road Wrentham, Massachusetts	Office: (508) 384-6151 Mobile (508) 954-3222
EQ Northeast Project Manager **David Ciroli**	EQ Northeast 185 Industrial Road Wrentham, Massachusetts	Office: (508) 803-1206 Mobile: (203) 245-1322
EQ Northeast Site Supervisor, Health and Safety Manager **Jay Oliva**	EQ Northeast 185 Industrial Road Wrentham, Massachusetts	Office: (508) 384-6151 Mobile: (508) 245-1327
Preferred Environmental Services H& S Oversight/CAMP Implementation **Jill S. Haimson**	Preferred Environmental Services 323 Merrick Avenue North Merrick, New York	Office: (516) 546-1100 x32
Preferred Environmental Services Onsite H& S Oversight/CAMP **Dave Kahn**	Preferred Environmental Services 323 Merrick Avenue North Merrick, New York	Mobile: (718) 354-0089
Arcadis Project Manager **David Kingsley**	Arcadis 295 Woodcliff Drive, Ste 301 Fairport, New York	Office: (585) 385-0090
Bayer MaterialScience Project Manager **David Schnelzer**	Bayer Material Science 100 Bayer Road Pittsburg, Massachusetts	Phone: (412) 777-7603

APPENDIX C

HAZARD ANALYSIS FORM & JOB SAFETY ANALYSIS FORM

Project Task Hazard Analysis Form

Project: **Bayer MaterialScience Site**

Task: **Activities pertaining to Site Remediation**

Project Number:		Date:	01/22/13
Prepared By:			Beth DiPietro
Reviewed/ Approved By:			
Field Personnel:			
Anticipated Duration:			

Task Description: Implementation of On-site Soils Remediation (Interim Measures)[1]

Basic Required Task Steps Describe the steps needed for the task.	**Potential Accidents or Hazards** Describe the potential hazards for each step.	**Recommended Safe Procedure** Describe specific precautions for each step and each possible hazard.	**Required Personal Protection Equipment (PPE)** List the proper PPE for each task.
1 On site travel in motor vehicles (on-road and off-road)	• Vehicle/pedestrian accidents • Collisions with structures supporting and electrical lines • Loss of vehicle control due to icy, wet and muddy conditions • Collisions with heavy equipment • Driving into trenches and other deep excavations	• Obey the facility's speed limit at all locations on the facility, at all times • Passengers may only sit in seats with seat belt and never in the bed of the truck • Drivers and passengers must use seat belts when vehicle in is operation • Identify location of support structures for overhead utilities and exhibit extra caution around such structures • Reduce speed when icy, wet, muddy or other hazardous driving conditions exist • Reduce speed when pedestrians are present and yield to pedestrians • Yield to heavy equipment • Keep vehicle glazing clean and defrosted to ensure maximum visibility • Be aware of and avoid trench/excavation locations • Keep vehicle out of active excavation areas • Avoid backing-up unless necessary. Use a spotter. When backing up, proceed slowly and continuously scan mirrors for obstructions, other vehicles and pedestrians	• Vehicle seat belts

[1] Note: This Hazard Analysis Form pertains to a wide variety of specific tasks that may be performed during implementation of site remediation at the Bayer MaterialScience site. General hazards associated with specific tasks (e.g. soil sampling, surveying, excavation, etc.) are described in their respective Hazard Analysis Forms, and, these forms must be reviewed by EQ Northeast personnel before undertaking such tasks. This form describes specific hazards that may be present due to the implementation of such tasks in the context of the soil remediation project.

Project Task Hazard Analysis Form

Project: **Bayer MaterialScience Site**

Task: **Activities pertaining to Site Remediation**

Task Description: Implementation of On-site Soils Remediation (Interim Measures)[1]			
Basic Required Task Steps Describe the steps needed for the task.	**Potential Accidents or Hazards** Describe the potential hazards for each step.	**Recommended Safe Procedure** Describe specific precautions for each step and each possible hazard.	**Required Personal Protection Equipment (PPE)** List the proper PPE for each task.
2 On-site travel on foot	• Slip, trip and fall • Twisted ankles and other injuries resulting from holes, cobbles and other obstructions • Vehicle/pedestrian accidents • Heavy equipment accidents such as crushing and impact • Low-light hazards at dawn and dusk • Cold/heat stress	• Walk carefully and exhibit extra caution in wet, muddy, icy and rough-surface conditions • Wear reflective safety vest at all times when traveling on foot inside the production-area fence • Be aware of the presence of vehicles and give wide clearance, especially when vehicles are backing up • Do not stand between vehicles and buildings or other structures when vehicles are operating • Alert heavy equipment operators to your presence when entering work areas by visual or verbal communication (see "Working near heavy equipment", below, for additional precautions) • Do not approach heavy equipment unless directed to do so by the operator • Carry a properly functioning two-way radio for communication • Do not work alone unless other site personnel are aware of your location, activities and expected duration of tasks and you have a direct line of communication such as a cell phone or two-way radio	• Sturdy, non-slip, hard-toe (steel, fiberglass, Kevlar) work boots • Reflective safety vest • Two-way radio
3 Work Railroad	• Bodily harm	• Hazard recognition • Personal protective equipment • Safe work practices • Training	• Safety vest

Project Task Hazard Analysis Form

Project: **Bayer MaterialScience Site**

Task: **Activities pertaining to Site Remediation**

Task Description: Implementation of On-site Soils Remediation (Interim Measures)[1]			
Basic Required Task Steps Describe the steps needed for the task.	**Potential Accidents or Hazards** Describe the potential hazards for each step.	**Recommended Safe Procedure** Describe specific precautions for each step and each possible hazard.	**Required Personal Protection Equipment (PPE)** List the proper PPE for each task.
4 Working near heavy equipment	• Crushing or impact • Noise	• Alert heavy equipment operators and other personnel to your presence when entering work areas by visual or verbal communication • Establish and maintain eye contact with operator before approaching heavy equipment and wait for operator to signal you to approach • Wear reflective safety vest at all times when traveling inside the production-area fence • Be aware of the working radius of track-hoes, back-hoes and other excavation equipment and maintain a safe clearance outside of the equipment's operating area • Avoid the path of working equipment, especially when equipment is backing up. • Wear a hard hat when working near heavy equipment • Generally, workers maintaining the specified clearance from heavy equipment engaged in typical excavation activities will not require hearing protection. If it is loud enough that you need to raise your voice substantially to be heard, hearing protection should be worn.	• Orange, reflective safety vest • Hard hat • Ear plugs or muffs, as necessary
5 Sampling, surveying and other work near trenches and deep excavations	• Trench or headwall collapse • Partial or complete burial • Suffocation • Impact injuries	▪ Avoid, to the fullest extent possible, the need to enter trenches. ▪ Unless absolutely necessary, sampling and observations should be performed from outside of the trench ▪ Do not enter trenches deeper than three feet unless trench is stepped to eliminate collapse hazards ▪ If hazardous volatile gases are present or potentially present, then conduct air monitoring while entering trench. Do not enter trench if explosive or flammable gases are present above their lower explosive limit. ▪ Where excavations cannot be safely stabilized, sampling, surveying, and other activities must be performed from the ground surface while maintaining a safe distance from the excavation's edge. Sampling, surveying, etc. May be performed using extended handles on hand tools, using heavy equipment or other means permitting personnel to remain outside of the excavation.	**Level D (minimum)** ▪ Hardhat, when required ▪ Hard-toe boots ▪ Non-slip soles ▪ Long pants ▪ Orange, reflective safety vest

Project Task Hazard Analysis Form

Project: **Bayer MaterialScience Site**

Task: **Activities pertaining to Site Remediation**

Task Description: Implementation of On-site Soils Remediation (Interim Measures)[1]			
Basic Required Task Steps Describe the steps needed for the task.	**Potential Accidents or Hazards** Describe the potential hazards for each step.	**Recommended Safe Procedure** Describe specific precautions for each step and each possible hazard.	**Required Personal Protection Equipment (PPE)** List the proper PPE for each task.
6 Sampling, surveying and other work in and around areas with potentially-contaminated soils and stockpiles derived from such soils	• Exposure to worker from potentially contaminated soil	• Applicable areas will be defined and discussed during daily safety meetings. Maps of such areas will be maintained at the facility. • Conduct surface soil sampling following the applicable SOP and Hazard Review Form procedures. • If suspect materials are identified during sampling or other activities, cease work immediately, leave the area and notify the SSHO. Work may proceed upon clearance from the SSHO. • Do not use other sampling methods (e.g., hand auguring) unless specifically cleared to do so by the SSHO. • If new areas are identified during the work, the SSHO must be consulted prior to work in such areas. • During excavation, EQ employees will maintain a safe clearance as specified by the SSHO during safety meetings held prior to excavation and as needed during the excavation activities. • Soil samples from such areas will be analyzed prior to shipment to for off-site treatment/disposal.	• See PPE requirement for specific task (e.g., sampling, surveying)
7 Work in areas where unidentified and potentially contaminated materials, equipment, structures (e.g., pipes, foundations, debris) have been observed.	• Exposure or injury	• EQ Northeast will receive safety briefings at the beginning of the Interim Measures, and as needed during Interim Measures implementation, on the identification of such potential hazards. • If suspect materials are identified during sampling or other activities, cease work immediately, leave the area and notify SSHO. • Do not return to the area until cleared by the SSHO. • If the SSHO identifies a hazard, complete a Hazard Analysis Form for the specific hazard identified based on measures specified by the SSHO.	• See PPE requirement for specific task (e.g., sampling, surveying)

Job Safety Analysis (JSA)

COMPANY/PROJECT/LOCATION	DATE:	☐ NEW ☐ REVISED	PAGE 1 of 1

JSA TYPE CATEGORY:	WORK TYPE:	WORK ACTIVITY (Description)	
DEVELOPMENT TEAM	**POSITION / TITLE**	**REVIEWED BY:**	**POSITION / TITLE**

MINIMUM REQUIRED PERSONAL PROTECTIVE EQUIPMENT (SEE CRITICAL ACTIONS FOR TASK-SPECIFIC REQUIREMENTS)

☐ SAFETY VEST	☐ GOGGLES	☐ AIR PURIFYING RESPIRATOR	☐ GLOVES (Chem./Leather)
☐ HARD HAT	☐ FACE SHIELD	☐ SUPPLIED RESPIRATOR	☐ FIRE EXTINGUISHER
☐ LIFELINE / BODY HARNESS	☐ HEARING PROTECTION	☐ PPE CLOTHING	☐ CONES
☐ SAFETY GLASSES	☐ SAFETY SHOES		☐ OTHER

JOB STEPS	POTENTIAL HAZARDS	CRITICAL ACTIONS

APPENDIX D

PROJECT SIGN-IN SHEET

Daily Site Sign In Sheet

Date _____

Job Site **Bayer MaterialScience** **Job No.** _____

EQ Northeast, Inc.

	Company	NAME	SIGNATURE	Time In	Time Out
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

APPENDIX E

INCIDENT REPORTING FORM

ACCIDENT AND ADVERSE EVENT REPORT

Project Name:	Project Number:
Employer of Injured:	Direct Supervisor:
Project Leader:	EQ Contact for Project:
Accident Date:	Accident Time: ☐ AM ☐ PM
Incident Type: ☐ Injury ☐ Illness ☐ Exposure ☐ Near Miss ☐ Spill ☐ Adverse Event/Property Damage	
☐ Other: (*Specify)*	

INJURED PERSON INFORMATION (Please attach additional pages if necessary)

Last Name:	First Name:	MI:
Exact Location of Accident:		
Injured Part of Body:		
Nature of Injury:		
What Job Was Being Done At The Time of the Incident?		
How Often Does Injured Employee Normally Perform Job? What Is Their Level Of Experience For The Type Of Work Being Completed?		
When Was The Last Time Injured Employee Performed Job?		

GENERAL INCIDENT INFORMATION

How Did the Incident Happen?	
What Was The Primary Unsafe Act Or Primary Unsafe Condition That Contributed To The Incident? (Examples: Using improper equipment, improper position of task, mechanical or material failure, inadequate guards or barriers)	
What Material Caused The Incident? (Use of wrong tool, malfunctioning equipment, using defective equipment)	
Were There Any Job Factors That Contributed To The Incident? (Inadequate design or layout, improper handling of materials, inadequate risk assessment)	
Were There Any Personal Factors That Contributed To The Incident? (Improper attempt to save time, impaired judgment or understanding of the job)	
Were There Any Environmental Conditions That Contributed To The Incident? (Slippery pavement due to weather, improper lighting, condition of area)	
Are There Any Underlying Reasons For The Conditions Or Actions Listed Above? (Required training was rescheduled, busy schedules, problem with supplies or tools)	

INFORMATION RELATING TO THE INCIDENT OR ADVERSE EVENT

Are There Written Safety Instructions Concerning This Job?	☐ Yes	☐ No
Were These Rules / Regulations Being Followed?	☐ Yes	☐ No
Was The Injured Employee Instructed In These Rules / Regulations?	☐ Yes	☐ No
Did This Accident Result In Lost Workdays?	☐ Yes	☐ No

ADVERSE EVENT SECTION ONLY

What Was Damaged?		
What Is The Cost of Repair?		
Did The Event Result In A Regulatory Notification?	☐ Yes	☐ No
What Agency Was Notified?		
Who Did The Notification?		
Date And Time Of Notification		
Was A Notice Of Violation Issued Or Penalties Issued?	☐ Yes	☐ No
Did The Event Result In A Site Visit By A Regulatory Agency?	☐ Yes	☐ No

CORRECTIVE ACTION PLANNED / TAKEN

CONTRACT MANAGER

Corrective Action Applied To Injured And/Or Other Person And/Or Condition?

Any Other Corrective Action?

Who Is Responsible For Action Items?	
Contract Manager Signature?	

EQ PROJECT MANAGER

What Actions Have YOU Taken And/Or Do You Plan To Take To Prevent Occurrences Of This Or Any Similar Accident?

What Further Recommendations Do You Take?

Who Is Responsible For Action Items?	
EQ Project Manager Signature	

APPENDIX F

EQ HEALTH & SAFETY MEETING SIGN-IN SHEET

Daily Job Safety Meeting

Date _____ **Time** _____

Job Site Bayer MaterialScie **Job Number** _____

EQ Northeast
Daily Job Safety Meetings

Agenda:		
NAME	SIGNATURE	POSITION

APPENDIX G

EQ SAFETY REPORT FORM

EQ NORTHEAST, INC.

185 Industrial Road - Wrentham, MA 02093 - (508) 384-6151

DAILY REPORT

EQNE PROJECT #	PROJECT TITLE & LOCATION:	REPORT DATE: REPORT # :
CLIENT	WIND AND DIRECTION:	

AM WEATHER:	PM WEATHER:	PRECIPITATION (inches) :	MAX TEMP:	MIN. TEMP:

ON-SITE PERSONNEL AND TASKS PERFORMED/AREA OF RESPONSIBILITY

	NAME	JOB TITLE	EMPLOYER	WORK DESCRIPTION	HOURS ON SITE
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

DESCRIPTION OF DAILY ACTIVITIES & WORK AREAS

JOB SAFETY

SAFETY MEETING TOPIC:

Equipment Safety, PPE,

VIOLATIONS OBSERVED:

EQ NORTHEAST, INC.

185 Industrial Road - Wrentham, MA 02093 - (508) 384-6151

DAILY REPORT

EQUIPMENT

EQUIPMENT DESCRIPTION	ARRIVAL DATE	HOURS			SAFETY CHECK Y/N
		Off Rent Date	USED TODAY	IDLE TODAY	

MATERIALS RECEIVED

MATERIAL DESCRIPTION	QUANTITY	QUANTITY TO DATE	UNIT	VENDOR
		#REF!		
		#REF!		
		#REF!		
		#REF!		
		#REF!		
		#REF!		
		#REF!		
		#REF!		
		#REF!		
		#REF!		
		#REF!		
		#REF!		
		#REF!		
		#REF!		

WASTE HANDLING, PROCESSING AND DISPOSAL DATA

MATERIAL	QUANTITY TODAY	QUANTITY TO DATE	COMMENTS

AIR MONITORING DISCUSSION

-

-

INSTRUCTIONS RECEIVED AND/OR OTHER COMMENTS

-

-

SIGNATURE OF EQ NORTHEAST REPRESENTATIVE **DATE:**

APPENDIX H

DECONTAMINATION PROCEDURES

PERSONNEL AND EQUIPMENT DECONTAMINATION
[In the Event Contaminated Soils and Debris]

A. Personnel and Small Equipment

Personnel entering the Exclusion Zone must check in at the entrance and, at a minimum, wear Level "D" protection as described in the Health and Safety Plan. When exiting the Exclusion Zone, tools and other non-essential safety items will be removed in the Contamination Reduction Zone. For levels "C", and "D", outer garments will be decontaminated in the Contamination Reduction Zone by washing with a detergent solution, followed by a water rinse.

On crossing the boundary of the Exclusion Zone, personnel may remove and discard outer boot covers and outer gloves. The next step is to remove outer garments and protective clothing. The last step is to remove eye protection. A portable wash water station will be provided for washing face and hands. The eye wash station will also be located as close to the source of the hazard as practical. Prior to leaving the site at the end of the day, protective clothing will be washed and rinsed to remove potentially contaminated sediments from boots, Tyvek suits, and gloves. The clothing will be removed and properly stored or disposed of in designated containers. Decontamination water and rinse water will be remediated during the on-site remedial activities. The following decontamination sequences will be followed, as appropriate, for the level of protection being used:

- **Level "D" Decontamination**
  Step 1 Remove and dispose of outer boot covers.
  Step 2 Wash and rinse outer gloves.
  Step 3 Remove outer gloves.
  Step 4 Remove chemical protective coverall.
  Step 5 Remove surgical gloves.
  Step 6 Wash and rinse hands.

- **Level "C" Decontamination**
  Step 1 Remove and dispose of outer boot covers.
  Step 2 Wash and rinse outer gloves.
  Step 3 Remove chemical resistant coveralls
  Step 4 Wash and rinse inner gloves.
  Step 5 Remove air-purifying respirator.
  Step 6 Remove inner gloves.
  Step 7 Wash and rinse hands.

B. Heavy Equipment Decontamination

In the event of soil contamination, EQ Northeast and its subcontractors will construct an equipment decontamination station within the Contamination Reduction Zone for removing soil from all vehicles and equipment leaving the work area. Large pieces of equipment will require thorough decontamination.

Prior to leaving the Contaminant Reduction Zone, personnel appropriately suited and protected will physically remove large pieces of mud, dirt, dust, and splashes with long-handled, soft-bristled brushes and metal scrapers.

C. Disposition of Decontamination Wastes

All equipment and solvents used for decontamination will be decontaminated or disposed of properly as per site-specific protocols.

APPENDIX I

EQ CONTRACTOR EHS MANUAL

Contractor Environmental, Health & Safety Manual

The Environmental Quality Company

36255 Michigan Avenue,
Wayne, Michigan, 48184
(800) 592-5489

Contractors shall review this manual and then sign and return the sign-off sheet located in Appendix B to the EQ Environmental, Health & Safety Manager prior to commencement of work on EQ premises.

Table of Contents

Section 8: Alcohol and Drug Abuse

1. Alcohol and Drug Abuse Policy
2. Drug Testing
3. Alcohol Screening
4. Consequences
5. Enforcement

Section 9: Security Program

1. General Information
2. Use of EQ Facilities
3. Harassment
4. Contractor Security
5. Deliveries
6. Site Security
7. Contractor Responsibilities
8. Firearms

Section 10: Hazard Communication Program

1. General Information
2. Hazardous Materials List
3. Material Safety Data Sheets
4. Container Labels
5. Hazard Communications

Section 11: Housekeeping

1. General Information
2. Housekeeping Procedures

Section 12: Environmental Issues

1. Hazardous Waste Management
2. Spill Prevention and Control
3. Notification of a Spill or Release to the Environment
4. Discharges to Stormwater Conveyance Systems
5. Erosion Control
6. Open Burning
7. Disposal of Waste in Sanitary Sewers
8. Asbestos
9. Training
10. Recycling

Section 13: Transporting Hazardous Materials

1. General Information
2. Transportation Procedures

Section 14: Motor Vehicles and Heavy Equipment

1. Motor Vehicle and Heavy Equipment Procedures
2. Loading Dock Vehicle Safety

Section 15: Safety Procedures and Permits

1. General Information
2. Safety Procedures
3. Site Procedures and Permits
4. Safety Procedure Modification

3. Scaffold Tags
4. Scissors Lifts and Man Lifts

Section 26: Cranes and Rigging

1. General Information
2. Recordkeeping
3. Operator Qualifications and Operating Procedures
4. Maintenance
5. Rigging Requirements
6. Work Platforms Suspended from Cranes

Section 27: Floor, Roof and Wall Openings

1. Floor, Roof, and Wall Opening Procedures
2. Stair Railings
3. Floor Opening Covers
4. Stairs
5. Runways and Openings

Section 28: Excavation and Trenches

1. General Information
2. Training Requirements
3. Earthwork Clearance Permit
4. Protective Design
5. Design and Construction of Protection Systems
6. Inspections
7. Egress
8. Completion of Work
9. Drilling Operations

Section 29: Concrete and Formwork

1. General Information
2. Concrete and Formwork Procedures

Section 30: Steel Erection

1. Training
2. Hoisting and Rigging
3. Permanent Floors
4. Temporary Floors
5. Steel Work
6. Fall Protection

Section 31: Roadway Work

Section 32: Work Area Conditions

1. General Information
2. Drinking Water
3. Toilets and Washing Facilities
4. Lighting
5. Material Use and Waste Management
6. Dust and Erosion Control

Section 33: Hazardous Waste Operations & Emergency Response (HAZWOPER)

1. General Information

APPENDIX J

NEW YORK AFFIDAVIT OF EXCAVATION

DEPARTMENT OF PLANNING AND DEVELOPMENT
DIVISION OF BUILDINGS

AFFIDAVIT OF EXCAVATION OR DEMOLITION

ARTICLE 36 NEW YORK STATE GENERAL BUSINESS LAW

Article 36 of the New York State General Business Law requires that no excavator shall commence or engage in any excavation or demolition unless and until he has served timely notice as provided in the law to operators who maintain underground facilities in the Town of Oyster Bay.
Such notice shall be served in accordance with the rules and regulations promulgated by the board of Standards and Appeals pursuant to section twenty eight of the Labor Law. A list of all operators is available in the Town Clerks Office.

OWNERS NAME Bayer Material Science

ADDRESS 100 Bayer Road, Pittsburg, PA 15205

ADDRESS OF SITE TO BE EXCAVATED

125 New South Road, Hicksville, NY

SECTION 17-46 **BLOCK** N **LOT** 30-31

APPLICATION NUMBER

INDUSTRIAL CODE NUMBER 56

Pursuant to Industrial code 56, prior to the demolition of any non-residential building, notification is to be made, in the appropriate form to the New York State Asbestos Control Bureau, regarding any asbestos removal or required asbestos surveys, **before** commencing demolition.

State of New York County of Nassau

I HEREBY AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE ABOVE APPLICANT AND OR APPLICATION HAS COMPLIED WITH ARTICLE 36 OF THE NEW YORK STATE GENERAL BUSINESS LAW RESPECTING UNDERGROUND FACILITIES, AND HAVE COMPLIED WITH INDUSTRIAL CODE NUMBER 56 REGARDING ASBESTOS.

DATE 4/24/09

SIGNED _____ **TITLE** Project Manager **NOTARY STAMP**

David Ciroli

SWORN TO ME THIS 24th **DAY** April 20 09

NOTARY SIGNATURE Suzanne R Lemire

Suzanne R. Lemire
My commission expires June 26, 2009.

State of Massachusetts; County of Norfolk.

APPENDIX K

DEFICIENCY TRACKING LOG
HEAVY AND SMALL EQUIPMENT INSPECTION CHECKLIST

Description of Deficiency	Date Identified	Person Responsible for Corrective Action	Projected Resolution Date	Date Corrected

HEAVY and SMALL EQUIPMENT / OFF-ROAD TRUCK INSPECTION CHECKLIST

Date _____ Time _____

Job Site _____ Job Number _____

Fuel Level _____ Odometer/Hour Meter _____

EQ Northeast, Inc.

Make/Description _____

Model _____ Serial Number _____

General Instructions

WHEN At the START of EACH work shift

BY WHOM Someone who is familiar with the equipment

STANDARD Safe operating condition and free from apparent damage that could cause failure while in use

DOCUMENTATION Operator to complete. Submit form daily to Site Supervisor

Check List

Item	OK	Not OK	Comments
Brakes			
Brake Lights			
Reverse Signal			
Alarm			
Horns/Lights			
Tires/Tracks			
Steering			
Seat Belt(s)/Seat(s)			
Operating Controls			
Fire Exingisher(s)			
Lights			
Coupling Device(s)			
Windshield Wiper(s)/Glass			
Guards			
Free of Leaks?			
Brake/Hydraulic lines			
Brake Fluid Level			
Hydraulic Fluid level			
Engine Oil Level			
Mirrors			
Other			

Inspectors Name _____ Inspectors Signature _____

Supervisors Name _____ Supervisors Signature _____

Actions Taken, if necessary _____

_____

Repairs Completed _____

_____

_____

Repairers Signature _____

Note: All repair receipts/documentation must be attached to this form.

APPENDIX L

SITE COMPETENT PERSON NOTIFICATIONS

THE ENVIRONMENTAL QUALITY COMPANY

EQ NORTHEAST • 185 INDUSTRIAL ROAD • WRENTHAM, MA 02093 • *tel* 800-426-9878 • *fax* 508-384-6028

Competent Person

Excavation/Shoring
Scaffolding
Confined Space

This certificate acknowledges that the following EQ Northeast, Inc. individuals have been assigned the duty of competent person for the above listed processes.

- Jay Oliva
- Kurt Oosterman
- Brian Brunnett
- Luke MacDonald
- Marc Spring
- John Akkerman
- Mario Ferreira
- David Ciroli
- Wayne Hinton
- Steve Marland
- Mark Noack

Thomas J. Vine, Vice President

10/15/12
Date

TABLES

CONSTITUENTS OF POTENTIAL CONCERN
SUMMARY OF BIOLOGICAL HAZARDS

TABLE 1

OCCUPATIONAL EXPOSURE LIMITS AND TOXICOLOGICAL PROPERTIES FOR CONSTITUENTS OF POTENTIAL CONCERN
(Page 1 of 1)

COPC	OSHA PEL	ACGIH TLV	Chemical Properties	Target Organs	Route of Exposure	Symptoms of Exposure
PCBs - Aroclor 1254	0.5 mg/m³ (skin)	0.5 mg/m³ (skin)	Colorless to light colored, viscous liquid with a mild hydrocarbon odor. Incompatible with strong oxiders. Flashpoint: N/A LEL: NA	Skin, eyes, liver, reproductive system	Inhalation Absorption Ingestion contact	Irritant to eyes, acne-form dermatitis, chloracne, liver damage, reproductive effects. Potential carcinogen.
PCBs - Aroclor 1260	none	.001 mg/m³ (skin)	Colorless to light colored, with a mild hydrocarbon odor.	Liver, skin	Inhalation Absorption Ingestion contact	Liver damage, nausea, abdominal pain
Arsenic	.5 mg/m³	.5 mg/m³	varies	Liver, kidneys, lungs	INH, ING	Skin, resp system, kidneys, CNS, liver, GI tract, reproductive system
Total petroleum hydrocarbons (represented as gasoline because it is the closest compound with occupational exposure limits) Gasoline	NA	300 ppm	Clear liquid with a characteristic odor. Incompatible with strong oxidizers, many fluorides & perchlorates, nitric acid. Flashpoint: -45F LEL: 1.4%	Eyes, skin, resp sys, liver, CNS, kidneys	Inhalation Ingestions Contact Absorption	Irritant to eyes, skin and mucous membranes; dermatitis; headache, fatigue, blurred vision, dizziness, slurred speech, confusion, convulsions; chemical pneumonia; possible liver, kidney damage; CARCINOGEN.
Cadmium	.005 m/mg³	.0055 mg/m³	Silver-white odorless Flashpoint: N/A LEL: NA	Liver, kidneys, lungs	INH, ING	Skin, resp system, kidneys, CNS, liver, GI tract, reproductive system
Acetone	1,000 ppm	500 ppm	Colorless liquid with a fragrant mint-like odor. Flashpoint: 0F LEL: 2.5%	Eyes, skin resp system	INH, ING, CON	Irritant to eyes, nose and throat; headache, dizziness; CNS depression; dermatitis

ABS	Skin Absorption
ACGIH	American Conference of Governmental Industrial Hygienists
Ca	NIOSH considered carcinogen
CFR	Code of Federal Regulations
CNS	Central nervous system
CON	Skin or mucous membrane contact
eV	Electron volts
IDLH	Immediately dangerous to life or health
INH	Inhalation
IP	Ionization potential
LEL	Lower explosive limit
NA	Not applicable or available
NE	Not established
NIOSH	National Institute of Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PEL	Permissible exposure limit
REL	Recommended exposure limit
Skin	Potentially significant contribution to overall exposure by contact with skin, mucous membranes, or eyes. Special precautions to significantly reduce or preclude skin contact may be required.
STEL	Short term exposure limit
TLV	Threshold limit values

Table 4.0 Summary of Biological /Physical Hazards and Risk

HAZARDS	ASSOCIATED TASKS	RECOMMENDED EXPOSURE LIMITS	ROUTES OF EXPOSURE	PREVENTATIVE & CONTROL MEASURES	ACUTE SYMPTOMS OR ASSOCIATED HAZARDS
Animals (Rats& Bats), Insects and Poisonous Plants	All	Dependent on individual's sensitivity	Skin Contact/Physical Contact	- Limit exposure - Avoid contact - Wear protective clothing - Use insect repellent - Training (Recognition)	Localized skin redness and swelling, nausea, contact dermatitis, allergic responses, headache and rabies (if bitten)
Back Injury	a. Material Handling b. Lifting c. Falls, Slips	Dependent on individual's size	Improper lifting or handling over-sized loads	- ergonomics training - use mechanical equipment - use proper lifting techniques	Strains and sprains
Engulfment	a. Excavation b. Trenching	NA	Entering holes with a depth >than 4 feet	- Following Trenching & Excavation SOPS. - Sloping, Shoring, Trench Boxes	Bodily harm
Explosive Atmospheres	a. Field Monitoring b. Trench Entry c. Hazardous Materials	< 20% of LEL (Lower Explosion Limit)	Proximity to hazard area (i.e. breaking the plane of the trench or excavation) Electrical hazards Chemical Release	- Monitor area with LEL meter - Follow Trench & Excavation SOPs - Use Buddy System - Leave area	Bodily harm
Fires	All	NA	a. Flammable vapors b. Combustible materials at job site c. Sources of Ignition d. Electrical hazard e. Equipment malfunction	- Remove ignition sources (site inspection) - No smoking at jobsite - No lighters, matches in work area - Keep trash and debris to a minimum - Air monitoring for flammable vapors and dust - Post emergency numbers	Bodily harm
Frost Injuries Hypothermia	All	NA	a. Exposure to cold weather	- Wear warm clothing - Avoid long term exposure to cold hazards - Drink fluids - Work/Warming regimens	a. Numbness b. Discoloration of skin c. Confusion/Disorientation
Hand and Power Tools	All	NA	a. Pinchpoints b. Unexpected Movement c. Electrical hazards	- Periodic inspections - Guards - Training - Personal Protective Equipment	Bodily harm

Table 4.0 Summary of Biological /Physical Hazards and Risk (Continued)

HAZARDS	ASSOCIATED TASKS	RECOMMENDED EXPOSURE LIMITS	ROUTES OF EXPOSURE	PREVENTATIVE & CONTROL MEASURES	ACUTE SYMPTOMS OR ASSOCIATED HAZARDS
Heavy Equipment	a. Excavation b. Trenching c. Drilling	NA	a. Pinchpoints b. Falling from heights c. Objects falling from overhead d. Rollover e. Unexpected movement	- Training - Personal Protective Equipment - Minimize workers in work area - Inspect equipment daily - Rollover protection - Leave equipment in down position when not in use	Bodily harm
Molds & Fungus	a. Sampling b. Excavation c. Remedial activities	NA	Inhalation	- Limit exposure - Avoid contact - Wear protective clothing - Training (Recognition)	Irritation eyes, lungs and mucus membranes
Noise	All	85 decibels	a. Heavy equipment b. Power Tools	- Wear hearing protection	a. hearing loss
Oxygen Level	a. Field Monitoring b. Trench Entry	>19.5% but <23.5%	a. Unventilated areas (trench or excavation) b. Displacement or consumption of O_2 by a chemical (trench or excavation	- Monitor area with Oxygen meter - Retreat from area with low/high oxygen - Use buddy system	a. Confusion b. Unconsciousness c. Increased risk of combustion hazard.
Guano	a. Sampling b. Excavation c. Remedial activities	NA	Inhalation	- Limit exposure - Avoid contact - Wear protective clothing - Training (Recognition)	Malaise, fever, chest pain, cough, headache, loss of appetite, muscle pain
Sunburn	All outdoor tasks	NA	Exposure to sunlight	- Minimize exposure to sun - Wear sunscreen and protective c clothing	a. Red skin b. Dizziness
Trips, Slips & Falls (physical hazards)	All	NA	a. Heavy equipment b. Power Tools c. Hand Tools	- Eliminate or minimize trip hazards - Use safe work practices - Adhere to Local Safety Plan procedures	a. Scrapes, cuts, bruises b. Broken bones c. Sprains and strains

Table 4.0 Summary of Biological /Physical Hazards and Risk (Continued)

HAZARDS	ASSOCIATED TASKS	RECOMMENDED EXPOSURE LIMITS	ROUTES OF EXPOSURE	PREVENTATIVE & CONTROL MEASURES	ACUTE SYMPTOMS OR ASSOCIATED HAZARDS
Demolition	Building Demolition	NA	a. Falling from heights b. Objects falling from overhead c. Unknown drums and hazardous materials d. confined spaces e. electrical hazards f. physical hazards g. power tools	- Hazard Recognition - Hazard Assessment - Use Safe Work Practices - Fall Protection - Lockout/tagout - Personal Protective Equipment - Training	a. Scrapes, cuts, bruises b. Broken bones c. Sprains and strains d. Bodily harm
Overhead Wires	All	NA	Electrical hazards	- Hazard Recognition - Hazard Assessment - Use Safe Work Zone Practices - Personal Protective Equipment - Training	a. Electrocution b. Bodily harm/death c. Burns d. Indirect falls
Railroad Hazards	Working within 25 feet of a “live” track	25 feet	Proximity to the hazard area (w/I 25 feet)	- Hazard Recognition - Personal Protective Equipment - Use Safe Work Practices (i.e. look both ways before crossing) - Training	Bodily harm

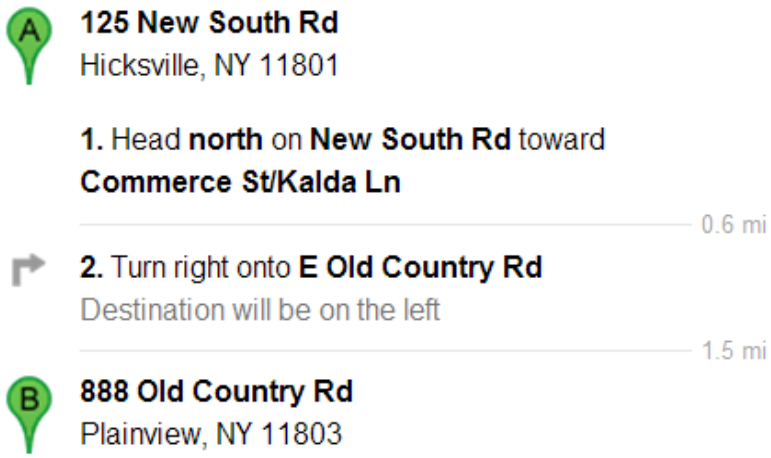
FIGURES

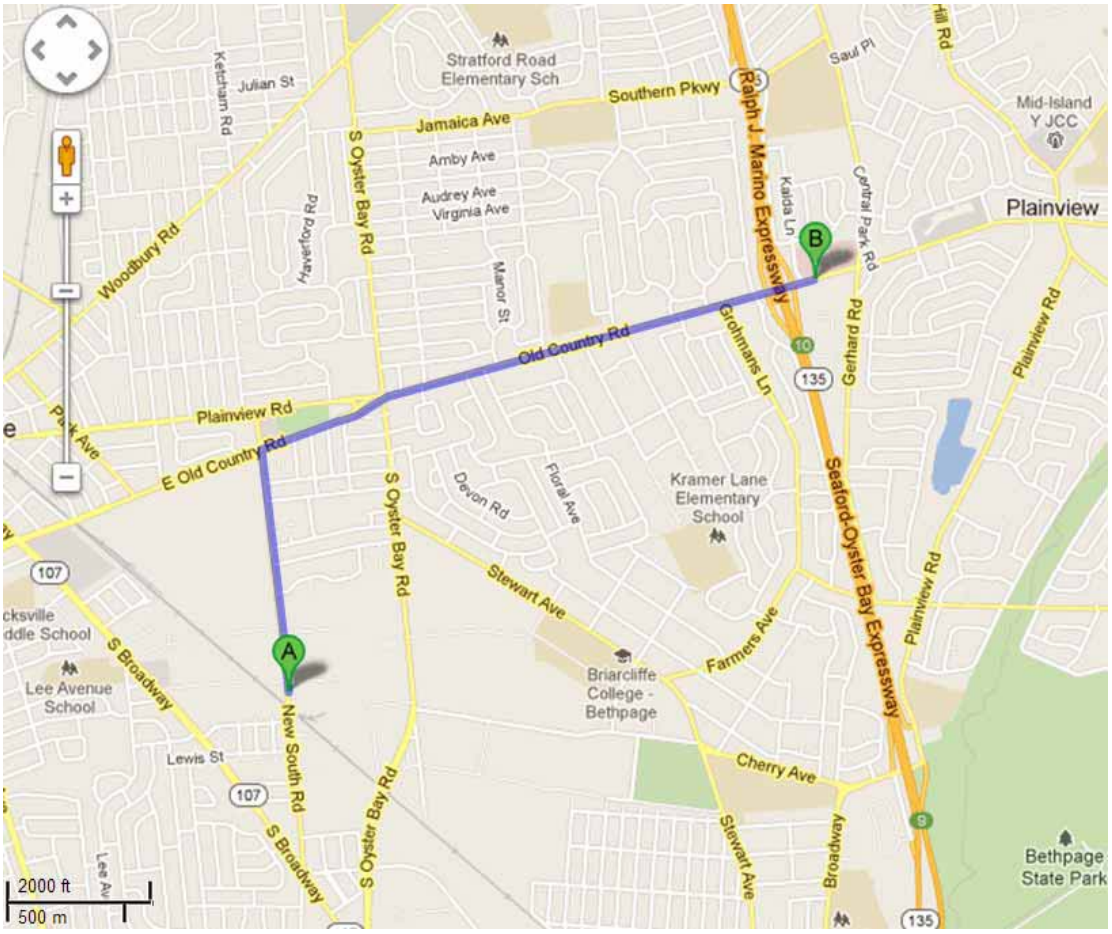
HOSPITAL ROUTE MAP
SITE PLAN

If emergency attention is not needed but professional medical attention is necessary, the employee will be taken to (see hospital route):

Medical Facility:	NSLIJ Plainview Hospital
Address:	888 Old Country Road, Plainview, NY 11803 Plainview, NY 11803
Phone Number:	516.719.2336 (Emergency) 516.719.3000 (Non-Emergency)

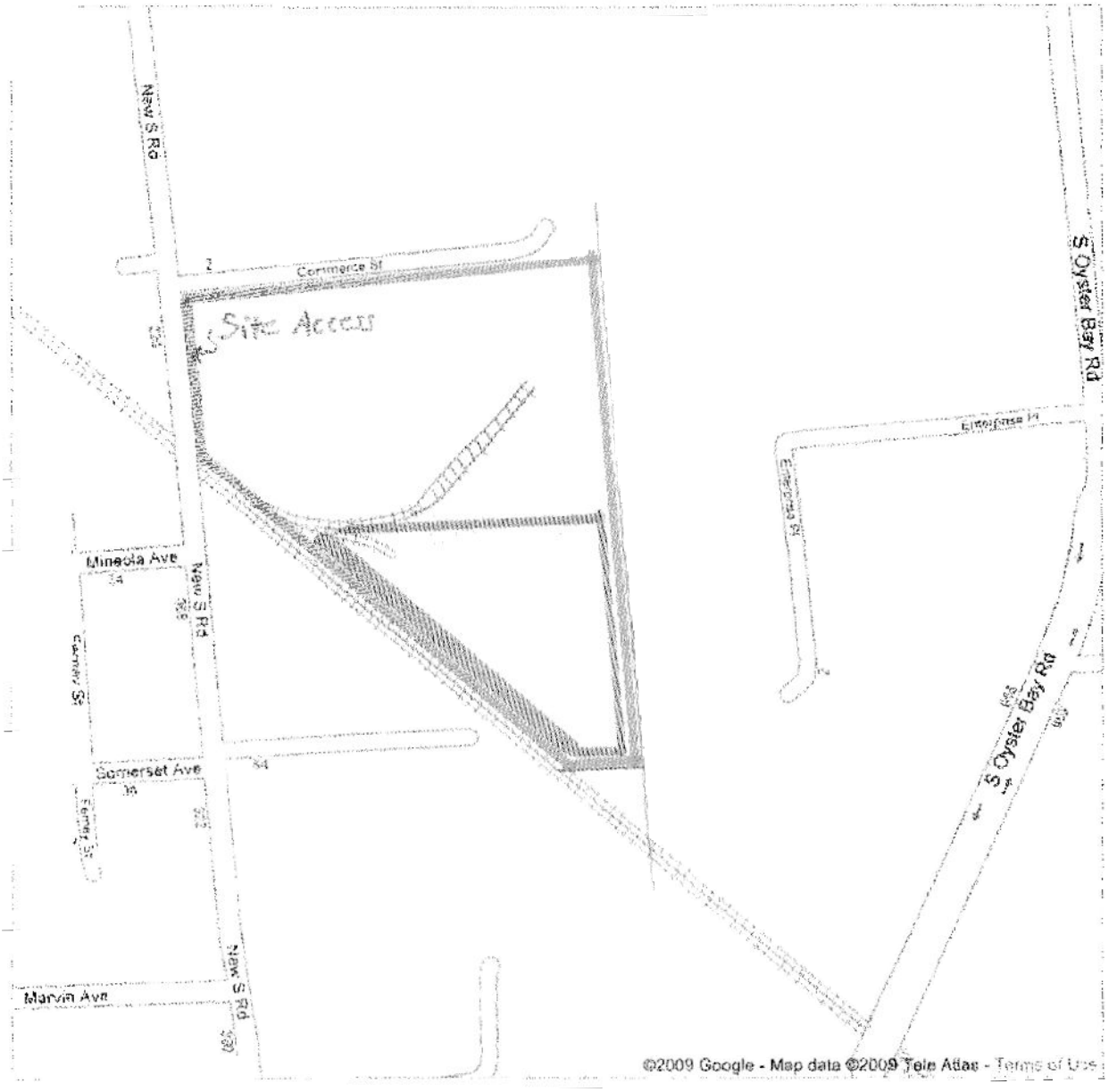
The estimated travel time is 6 minutes for 2.2 miles of travel.




Stratford Road Elementary Sch
Southern Pkwy
Jamaica Ave
Amby Ave
Audrey Ave
Virginia Ave
Julian St
Ketcham Rd
Waverly Pl Rd
S Oyster Bay Rd
Manor St
Woodbury Rd
Ralph J. Marino Expressway
Saul Pl
Karida Ln
Central Park Rd
Mid-Island Y JCC
Plainview
Old Country Rd
Grohmans Ln
Gerhard Rd
Plainview Rd
Plainview Rd
E Old Country Rd
Park Ave
Devon Rd
Floral Ave
Kramer Lane Elementary School
Seaford-Oyster Bay Expressway
Stewart Ave
Farmers Ave
Briarcliffe College - Bethpage
S Broadway
Lee Avenue School
Lewis St
New South Rd
Cherry Ave
Broadway
Bethpage State Park
2000 ft
500 m
A
B
107
135

Google Maps

Address **New South Rd**
Hicksville, NY 11801



Site Plan

Project Area (Bayer)

Work/Excavation Area

Rail Spur For Soil Load-out