# SITE SPECIFIC HEALTH AND SAFETY PLAN for the REMEDIAL INVESTIGATION / FEASIBILITY STUDY at Monroe Electronics

Monroe Electronics 100 Housel Avenue Lyndonville, New York 14098 (Site Code # 837013) (WA #D006130-18)

January 2011

Prepared for:

New York State Department of Environmental Conservation Division of Environmental Remediation 625 Broadway Albany, New York 12233-7017

Prepared by:

**HRP Engineering, P.C.** 1 Fairchild Square Suite 110 Clifton Park, NY 12065

# SITE SPECIFIC HEALTH & SAFETY PLAN FOR REMEDIAL INVESTIGATION / FEASIBILITY STUDY

# Monroe Electronics 100 Housel Avenue, Lyndonville, NY 14098

D006130-18, Site Code #837013

#### CERTIFICATION

This Addendum to HRP's Generic Health and Safety Plan has been prepared under the supervision of, and has been reviewed by, a Certified Industrial Hygienist (CIH) certified by the American Board of Industrial Hygiene.

anna

Jeffrey R. Sotek, CIH ABIH No. 9086

"I Jeffrey Sotek certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Work Plan was prepared in accordance with all applicable statues and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER 10)."

## HRP ENGINEERING, P.C.

#### SITE SPECIFIC HEALTH AND SAFETY PLAN FOR:

PROJECT:	<b>REMEDIAL INVESTIGATION / FEASIBILITY STUDY</b>
ADDRESS:	Monroe Electronics
	100 Housel Avenue
	Lyndonville, New York, 14098
DEC SITE ID:	# 837013
COMPANY:	NYSDEC Standby Contract, D006130-18
HRP JOB#:	NEW9617.P2

#### 1.0 <u>PURPOSE AND SCOPE</u>

HRP has developed this addendum to address the safety of site workers during on-site (field) work covered under OSHA's Hazardous Waste Operations and Emergency Response regulation (29 CFR 1910.120). As per the NYSDEC work assignment issuance/notice to proceed (Attachment 1), HRP is directed to perform a REMEDIAL INVESTIGATION / FEASIBILITY STUDY at the Monroe Electronics site located in the area of 100 Housel Avenue, Lyndonville, in Orleans County. Based on the scope of work (Attachment 1), we will follow HRP's Generic Health and Safety Plan and Field Activities Plan.

#### 2.0 SITE INFORMATION

Facility Name: Monroe Electronics	Phone No.	N/A				
Address: 100 Housel Avenue, Lyndonville, New York, 14098						
Site Contact(s): NYSDEC Project Manager, Eric Hau	usamann - Cent	ral Office				

Monroe Electronics has been located at the 100 Housel Avenue Lyndonville, New York located since 1972. In September of 1986, the company submitted a hazardous Waste Disposal Questionnaire as a requirement of the Community Right to Know (CRTK) survey. In the CRTK survey, Monroe Electronics indicated that they dumped 1 to 4 tons of 1,1,1-trichloroethane (1,1,1-TCA) at their Housel Avenue facility. 1,1,1-TCA is a volatile organic compound (VOC) that was used for cleaning and degreasing components in the manufacturing process. Before Monroe Electronics operated at the site, the property was the site of a former DuPont/Barre Plant. Various pesticide sprays and dust mixtures were manufactured at this plant. Another site listed in the registry is the Lyndonville West Avenue property (Site I.D. No. 837002). This site originally included the Monroe Electronics property, before the boundaries were modified. The contaminants of concern at the West Avenue site are pesticides and arsenic, which originated at the former DuPont/Barre Plant. Pesticide and arsenic contamination has been confirmed in a nearby landfill and drainage ditch; however, investigations done in 1997 did not show consequential amounts of pesticide and/or arsenic on the Monroe Electronics property. Investigations did confirm the presence of VOC's on the

property. However, VOCs have been detected in the on-site groundwater at levels greatly exceeding the NYS Part 703 groundwater standards. The investigations have confirmed that the property is a source of VOC contamination and on-site groundwater has been impacted by disposal.

## 2.0 SITE INFORMATION (CONTINUED)

- A. Attach a workplan/proposal or describe the Scope of Work in detail (Attachment 1).
- B. Contaminants of Concern:
  - Chlorinated solvent [1,1,1-trichloroethane (1,1,1-TCA)] and possible breakdown products
  - Pesticides
  - Heavy Metals
- C. List the known and/or potential on-site release areas.
  - 1,1,1-TCA Disposal Area (location currently unknown)
  - Potential historic areas where pesticide residues may be present

## 3.0 EMERGENCY PHONE NUMBERS

Site personnel should familiarize themselves with the location of the nearest telephones (i.e. in a site building or cellular) and how to obtain an outside line.

Fire Department, Ambulance, Police Department: Dial 9-1-1

Note: An ambulance should be contacted for emergency cases. When contacting the local authorities, be sure to give:

your name; facility name; full address; telephone number; and nature of the emergency.

Poison Control Center:	1-(800)-222-1222
NY DEC Spill Hotline:	1-(800)-457-7362
National Grid (electrical service on	ly): 1-(800)-867-5222
NYSEG (natural gas service):	1-(800) 572-1121
NYSDEC Project Manager:	Eric Hausamann - (518) 402-9813
HRP Office HSO:	Jeff Sotek - office # (518) 877-7101 x107
	Cell phone # (518) 441-4811

#### Local Hospital Name and Address: Eastern Niagara Hospital-Newfane

## 2600 William Street Newfane, NY

Travel time to the local Hospital is approximately <u>30</u> minutes.

Map showing routes (primary and alternate) to Hospital (Attachment 2)

Description of route: <u>Head East on Housel Ave toward Co Rd 63/ N Main St. (0.4)mi.) Turn</u> <u>left at NY-63 N/Co Rd 63/N Main St (1.7).</u> Turn left at NY-18 W/Roosevelt Hwy (16.5mi). Turn left at Ny-78 S/Lockport Olcott Rd (3.3mi). Turn left at destination. (0.2mi)

Emergency Evacuation Signal: Loud Hail

**Rally Point:** <u>Depending on the site activities being performed at the time, the Rally Point will</u> <u>be at the property boundary edge that is closest to a side road (Housel Avenue) away from traffic.</u>

## 4.0 <u>PERSONNEL</u>

The site Health and Safety Officer (HSO) will be responsible for administering the procedures set forth in this plan in the case of a fire, spill or other emergency/contingency. The Project Manager, General Supervisor, or a designated alternate shall be on-site at all times. The Project Manager or General Supervisor should determine the number of workers that are on-site so that all personnel can be accounted for in an emergency.

Project Manager or General Supervisor: Jason Beach, Joanna Wozniak, or Robert Koslosky

Alternate: James Charter, Billy Elder, Keith Gandarillas, David Broach, or Richard Mitchell, Ammon Bush Jr., Joe Rhodes, Brian Early, Drew Suttie, Paul Zandt

HRP Project Manager: Jason Beach

HRP Site Health and Safety Officer: Jason Beach, Joanna Wozniak, or Billy Elder

HRP QA/QC manager: Zoe Belcher

Companies present on-site:

COMPANY	FOREMAN	TOTAL NUMBER OF PERSONS
HRP Engineering, P.C.	1	2
Shumaker Consulting & Engineering	1	2
Geologic (drillers)	1	2

#### 5.0 PERSONAL PROTECTIVE EQUIPMENT

The overall health and safety risk associated with chemical hazards for HRP and HRP's subcontractors is considered low. This is primarily due to the low concentrations of chemical contaminants expected based on the results of previous environmental investigations as well as the expected minimal contact personnel will have with any potentially contaminated media. Therefore, the minimal level of protection for HRP and HRP's subcontractors during the conduct of all the environmental work performed at the site, and described in the Work Plan, will be Level D. If site conditions warrant, an upgrade to Level C PPE may be required. If it is determined protection beyond Level C is required, HRP will re-evaluate the HASP as well as the site conditions and will revise the HASP as required. The requirements for PPE at level D and C are outlined in Attachment 3. Also, a description of the personal protective equipment required for each work task, at Level D, is detailed in Attachment 3.

#### 6.0 AIR MONITORING

Volatile organic compounds (VOCs) and particulates will be monitored periodically at the site during field activities. Parameters such as VOCs and total particulates will be monitored periodically at the breathing zone following the protocols established in Table 3 of the Generic Health and Safety Plan. The table following this section outlines the samples that need to be taken.

VOCs will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis or as otherwise specified. Upwind concentrations should be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work should be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment should be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment should be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities must be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities can resume with continued monitoring.

If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities must be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities can resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

If the organic vapor level is above 25 ppm at the perimeter of the work area, activities must be shutdown.

Type of activity	Type of sample	Location of sample	Parameter	Reading	Response
				0 ppm to <1 ppm	Normal operations; record breathing zone monitoring measurements every hour.
			Total Organic	>1 ppm to 5 ppm	Increase recording frequency to at least every 15 minutes, and use Vinyl chloride Drager tube to screen for the presence of vinyl chloride.
			Vapors	>5 ppm to <50 ppm	Upgrade to Level C personal protective equipment, continue screening for vinyl chloride.
Intrusive activities	Periodic	Worker breathing zone		>50 ppm	Stop work; evacuate confined spaces/work area; investigate cause of reading; contact Program Safety and Health Officer.
activities				0 to 0.100 mg/m <sup>3</sup> above Background	Normal operations; if >0, investigate source; monitor continuously.
			Total Particulate	>0.100 mg/m <sup>3</sup> above Background	Initiate wetting of work area to control dust; upgrade to Level C if dust control measures do not control dust within 15 minutes; monitor downwind impacts.
				>0.15 mg/m <sup>3</sup> in breathing zone or at downwind perimeter of work area	Stop work; investigate cause of reading; contact HRP Project Manager and Program Safety and Health Officer.
Intrusive activities	Continuous	Upwind perimeter of work area Average every 15 minutes	VOC / Particulates		Establish background concentrations
		Downwind	VOC	Reading 5 ppm > background	Stop work activities, if instantaneous decrease in readings, continue work
Intrusive activities	trusive Continuous work area		VOC	Reading 5 ppm > background, and <25 ppm background	Stop work activities, identify source of vapors, corrective actions
		15 minutes	VOC	Reading 25 ppm > background	Stop all work activities
		Downwind	Particulates	100 mg/m3 > background	employ dust suppression techniques
Intrusive activities	Continuous	perimeter of work area Average every 15 minutes	Particulates	150 mg/m3 > background after dust suppression techniques are employed	Stop work activities, re-evaluate the activity, use corrective actions to reduce particulates below 150 mg/m3

#### 7.0 CONTINGENCY

During any of the work involving the site (drilling, excavating, grading, etc.) if any unknown substance is detected (sludge, unlabelled containers of liquid, etc.), work will be suspended immediately. The HSO will assess the situation (in conjunction with site personnel and the HRP Project Manager) and decide on a course of action.

If the situation warrants emergency response, one of the following companies can be contacted:

Environmental Products & Services of Vermont, Inc. Cheektawaga, New York	(800) 577-4557
Clean Harbors Environmental Services Lyndonville, New York	(800) 645-8265

ATTACHMENT 1

WORK ASSIGNMENT D006130-18

## New York State Department of Environmental Conservation

Division of Environmental Remediation, 12<sup>th</sup> Floor 625 Broadway, Albany, New York 12233-7012

Phone: (518) 402-9764 • Fax: (518) 402-9722 Website: www.dec.ny.gov



September 9, 2010

Mr. Jeffery Sotek, P.E. HRP Associates, Inc 1 Fairchild Square Clifton Park, NY 12065

#### RE: WA Issuance/Notice to Proceed

Dear Mr. Sotek:

The New York State Department of Environmental Conservation's Division of Environmental Remediation (DER) is issuing to your firm and authorizing your firm to proceed with the work assignment (WA) identified below and in the enclosed work plan template and/or costing tool report for the performance of a Remedial Investigation and Feasibility Study to define the nature and extent of the suspected on-site groundwater contamination.

Please contact DER's Project Manger (PM) immediately to discuss the WA, including staffing, time critical work, and any site-specific concerns.

Contract/WA No.: Site/Spill No./PIN: Site/Spill Name: Program Element: Est. Total WA Budget:

Project Manager: PM Phone No.: PM E-mail:

Contract Manager: CM Phone No.: CM E-mail:

M/WBE Contact: M/WBE Phone No.: M/WBE E-mail: D006130-18 837013 Monroe Electronics <u>RIFS</u> \$95,000

Eric Hausamann (518) 402-9813 eghausam@gw.dec.state.ny.us

Patricia Kappeller (518) 402-9572 plkappel@gw.dec.state.ny.us

Juan Abadia (518) 402-9311 mbe@gw.dec.state.ny.us

Please review your firm's relationship with the Potential Responsible Parties (PRPs) listed on the attachment to the enclosed Conflict of Interest Certification form. Complete the

form, accept or reject the WA, and return the form to the Contract Manager (CM) within 5 calendar days of the date of this letter.

The Schedule 2.11s and M/WBE Utilization Plan for the WA must be completed and sent electronically in a single Adobe® PDF document to the CM within 21 calendar days of the date of this letter. If multiple sites are included in the WA, Schedule 2.11s must be provided for each site and the total WA. The Schedule 2.11s must be in accordance with the executed standby contract. The Schedule 2.11s should identify areas of work requiring subcontracting and the certified M/WBE firms to be utilized, if known. If the M/WBE Utilization Plan for the WA does not meet the M/WBE goals set forth in the standby contract, an explanation must be provided at the time the M/WBE Utilization Plan is submitted. Standby subcontractors should be utilized to the extent practical. Project-specific subcontracts must be procured in accordance with the overall schedule (i.e., a reasonably estimated placeholder cost can be included for services not yet procured). The Schedule 2.11s should reflect the scope of work outlined in the Work Plan Template and/or Costing Tool Report. A cover letter accompanying the submittal of the Schedule 2.11s should include a brief justification of the budget supported by the Schedule 2.11s, the anticipated completion date(s) for the work, and the anticipated billings by State fiscal year. Additional justification should be included if work is proposed for multiple years. Adobe® PDFs are to be submitted in an electronic format that complies with DER's Electronic Document Standards.

If you have any questions regarding the WA's scope of work (work plan template), and/or budget (Schedule 2.11s), please contact the PM. Requests for reimbursement for the WA should not be submitted and will not be processed prior to the approval of the Schedule 2.11s.

If work is not initiated in a timely manner or the Schedule 2.11s are not approved by DER within **60 calendar days** of the date of this letter, the WA may be terminated and reimbursement will be limited to a negotiated amount based on work performed to date of termination.

Sincerely,

Michael J. Cruden, P.E. Chief Contracts and Payments Section Bureau of Program Management Division of Environmental Remediation

Attachments

ec:

E. Hausamann P. Kappeller D. Desnoyers S. Ervolina D. Weigel R. Knizek W. Wertz B. Putzig D. Finlayson T. Wolosen M/WBE Unit New York State Department of Environmental Conservation Division of Environmental Remediation Remedial Bureau E, 12th Floor 625 Broadway, Albany, New York 12233-7017 Phone: (518) 402-9814 • Fax: (518) 402-9819 Website: www.dec.ny.gov



#### MEMORANDUM

TO: Michael J. Cruden, Chief, Contracts and Payments Section, BPM

**FROM:** William E. Wertz, Chief, Remedial Section B, Remedial Bureau E add E Work **THRU**: Robert C. Knizek, Director, Remedial Bureau E

SUBJECT: Work Assignment Issuance Request

DATE:

1.41 1 23

Site/Spill Name and Number, Location: Monroe Electronics (Site ID: 837013) is located in the Town of Yates, Orleans County.

Site/Spill Information: See attached copy of UIS report.

Conflict of Interest: See attached list.

Work Element: RI/FS

Duration: 24 months

Estimated Budget: \$95,000

Funding Source: State Superfund

**Brief Description of Scope of Work:** The objective of this work assignment is to define the nature and extent of the suspected on-site source of groundwater contamination associated with the Monroe Electronics site. This work assignment also includes funding for a feasibility study/ remedial alternatives analysis should one be warranted. (See attached RI/FS cost summary.)

Attachments

ec:

D. Desnoyers S. Ervolina B. Putzig, NYSDEC, Region 8 D. Weigel W. Wertz E. Hausamann



NE	W YORK ST	DIVISION OF ENVI		And a second
Site Code	837013	Site Name	Monroe Electi	ronics
Classification	02	Address	100 Housel A	venue
Region	8	City	Lyndonville	Zip 14098-
Latitude	43.	32 Town	Yates	
Longitude	-78.	40 County	Orleans	Project Manager Bart Putzig
Site Type				Estimated Size 3.0000

#### Site Description

E 10/0040

Monroe Electronics has been at this Lyndonville location since 1972. In September of 1986, the company submitted a Hazardous Waste Disposal Questionnaire as a requirement of the Community Right to Know (CRTK) survey. In the CRTK survey, Monroe Electronics indicated that they dumped 1 to 4 tons of 1,1,1-trichloroethane (1,1,1-TCA) at their Housel Avenue facility. 1,1,1-TCA is a volatile organic compound (VOC) that was used for cleaning and degreasing components in the manufacturing process. Before Monroe Electronics operated here, the property was the site of the former DuPont/Barre Lime & Sulfur Company. Various pesticide sprays and dust mixtures were manufactured at this plant. Another site listed in the Registry is the Lyndonville West Avenue property (Site I.D. No. 837002). This site originally included the Monroe Electronics property, before the boundaries were modified. The contaminants of concern at the West Avenue site are pesticides and arsenic contamination which originated at the former DuPont/Barre plant. Pesticide and arsenic contamination has been confirmed in a nearby landfill and drainage ditch; however, investigations done in 1997 did not show consequential amounts of pesticide and/or arsenic on the Monroe Electronics property. Investigations did confirm the presence of VOCs on the property, however. VOCs have been detected in the on-site groundwater at levels greatly exceeding the NYS Part 703 groundwater standards. The owner of the company confirmed to a NYSDEC coordinator that solvents (VOCs) were disposed on the property, but he was unwilling to reveal the exact locations of disposal. The investigations have confirmed that the property is a source of VOC contamination and on-site groundwater has been impacted by disposal. Additional activities are planned for 2010 to define the nature and extent of the VOC source and evaluate remedial options.

Contaminants of Concern (Including Materials Disposed)	Quantity Disposed
SOLVENTS	unk
1,1,1 TCA	2 Tons

Analytical Data Available for : Groundwater, Soil Applicable Standards Exceeded for: Groundwater

#### Site Environmental Assessment

Disposal of spent solvents (VOCs) on this property has resulted in groundwater contamination at levels exceeding the NYS Part 703 groundwater standards. The contamination source is still uncertain, and may likely continue to migrate into the groundwater.

#### Site Health Assessment

All area residents are supplied with public water so exposures to contaminated groundwater are not expected. The site is partially fenced, and direct contact with on-site soils is not expected since a layer of

#### 5/3/2010

clean fill and pavement is present on the site. However, any excavation on the property will result in increased risk of exposure to site contaminants. NYSDOH and NYSDEC will evaluate the need to conduct additional investigations to determine the potential for soil vapor intrusion into structures on or near the site.

Project Information										
Operable Unit 01	Remedia	l Progran	n							
	Agency	Bureau	Office	Mana	ger	Fundin	g Source			
Site Characterization										
Remedial Investigation	DEC	BURE	REM-B	EGHA	USAM	State Su	perfund			
Remedial Design										
Remedial Action										
OM & M										
	Start Date	Stat.	End Date	Stat.	Rev. Start Date	Stat.	Rev. End Date	Stat.		
Site Characterization										
Remedial Investigation	04/30/2010	PLN	03/30/2012	PLN	06/21/2010	PLN		XXX		
Remedial Design										
Remedial Action										
OM & M										
						×				

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**ATTACHMENT 2** 

## MAP AND DIRECTIONS

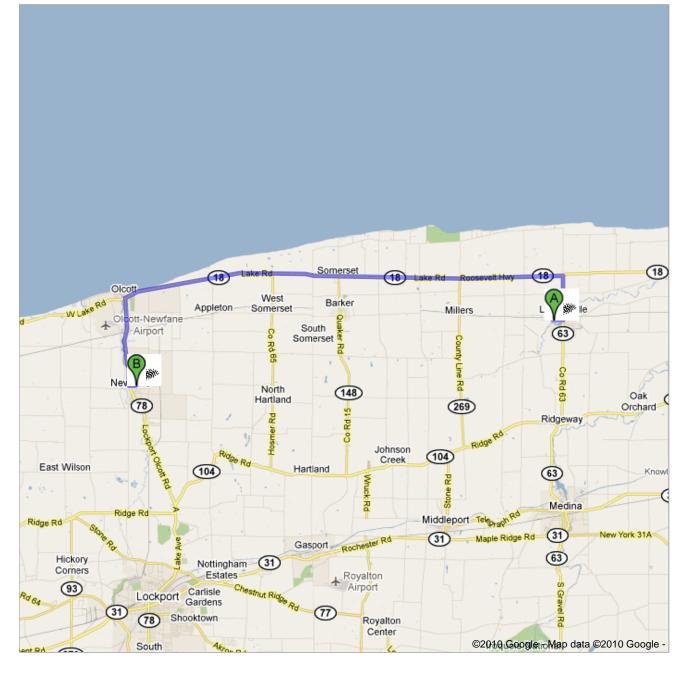
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Eastern Niagara Hospital-Newfane



Directions to 2600 William St, Newfane, NY 14108 22.0 mi – about 31 mins

HASP hospital route from Hornellsville, NY



1. Head east on Housel Ave toward Co Rd 63/N Main St	go 0.4 mi
About 1 min	total 0.4 mi
<ul> <li>63 2. Turn left at NY-63 N/Co Rd 63/N Main St Continue to follow NY-63 N/Co Rd 63 About 4 mins</li> </ul>	go 1.7 mi total 2.0 mi
<ul> <li>3. Turn left at NY-18 W/Roosevelt Hwy Continue to follow NY-18 W About 20 mins</li> </ul>	<b>go 16.5 mi</b> total 18.5 mi
4. Turn left at NY-78 S/Lockport Olcott Rd About 5 mins	<b>go 3.3 mi</b> total 21.8 mi
5. Turn left toward Corwin Ave/William St About 1 min	<b>go 0.2 mi</b> total 22.0 mi
<ul> <li>f. Turn left at Corwin Ave/William St Destination will be on the left</li> </ul>	<b>go 30 ft</b> total 22.0 mi
P 2600 William St, Newfane, NY 14108	

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Map data ©2010 Google

Directions weren't right? Please find your route on maps.google.com and click "Report a problem" at the bottom left.

**ATTACHMENT 3** 

PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

## Level D Personal Protective Equipment

Level D will be worn for initial entry onsite and initially for all activities and will consist of the following:

- Coveralls or appropriate work clothing
- Steel-toe, steel-shank safety boots/shoes
- Hard hats (when overhead hazards are present or as required by the Site Health and Safety Officer)
- Chemical resistant gloves (nitrile/neoprene) when contact with potentially contaminated soil or water is expected
- Safety glasses with side shields
- Hearing protectors (during drilling or other operations producing excessive noise)
- Boot covers (optional unless in contact with potentially contaminated soil or water)
- Polycoated coveralls (when contact with contaminated soil and water is anticipated, e.g., when surging/pumping wells and pressure-washing equipment).
- Insulated clothing, hats, etc. must be worn when temperatures or wind chill fall below 40°F.

#### Level C Personal Protective Equipment

Based upon the preliminary information concerning the site, contaminant concentrations are not expected to require the use of Level C PPE. However, should the following conditions be identified, the Site Health and Safety Officer is authorized to increase the level of PPE to be worn.

Level C protection consists of:

- Full-facepiece, air purifying respirator equipped with combination organic vapor and high efficiency particulate cartridges
- Polycoated or other water resistant coveralls
- Steel-toe, steel-shank neoprene safety boots/shoes
- Chemical-resistant boot covers
- Hard hat
- Hearing protectors (during drilling or other operations producing excessive noise)
- Chemical resistant inner (latex/nitrile) and outer gloves (nitrile/neoprene).

	MINIMUM PROTECTIVE EQUIPMENT											
WORK TASK	Work Clothes	Steel Toe Shoes	Work Gloves	Chem. Resistant Gloves <sup>1</sup>	Saf ety Glasses	Hearing Protection	Тучек	Apron	Hard Hat	Face Shield	Fall Protection <sup>2</sup>	Visibility Vest
	SAMPI	LING/F	OUTIN	E TASK	(S							
Air Sampling	Х	Х		Х								
Bridge Inspection/Const. Supervision	Х	Х				Х			Х			Х
Drilling	Х	Х		Х	Х	Х			Х			
Drum Sampling & Moving	Х	Х	Х	Х	Х				Х	Х		
Ground Water Sampling (MW,RW)	Х	Х		Х	Х							
Hand Sampling (shovel, auger)	Х	Х	Х	Х								
Landfill Sampling (soil, sediment, gw, sw, leachate)	Х	Х		Х	Х		Х					
Phase 1 Site Inspection	Х	Х										
Probing	Х	Х		Х	Х	Х			Х			
Product Sampling (RW)	Х	Х		Х	Х		Х					
Remediation Monitoring (air systems)	Х	Х		Х	Х	Х						
Remediation Monitoring (water systems)	Х	Х	Х	Х	Х	Х						
Soil Gas Sampling	Х	Х		Х	Х							
Stack Testing	Х	Х		Х					Х		Х	
Stormwater Sampling	Х	Х		Х								
Surface Water Sampling	Х	Х		Х	Х							
Surveying	Х	Х										Х
Wastewater Sampling	Х	Х		Х	Х							
Wastewater Benchmark Test	Х	Х		Х	Х			Х		Х		[
	CH	EMICA	L HAN	DLING						<u>.</u>	<u> </u>	
Filling Decon Bottles	Х	Х			Х			Х				
Soil Sample Disposal	Х	Х		Х	Х							
	PO	WER	EQUIPI	MENT								
Circular Saw	Х	Х			Х	Х						
Concrete Core Machine	Х	Х	Х		Х	Х						
Drill Press	Х	Х			Х	Х						
Generators	Х	Х	Х		Х	Х						
Industrial Vacuum	Х	Х	Х		Х	Х						
Pavement Saw	Х	Х	Х		Х	Х						
Power Equipment (handrills, grinder, etc.)	Х	Х	Х		Х	Х						
Power Washer	Х	Х		Х	Х	Х						
Regenerative Blowers/Air Compressors	Х	Х	Х		Х	Х						
Rotary Percussion Hammer	Х	Х	Х		Х	Х						
Sawzall	Х	Х			Х	Х						

Notes: Minimum protective equipment means the minimally acceptable protective gear to be donned when performing or using the equipment listed above. Additional protective equipment (i.e. respirators) may be required as described in the site specific health and safety plan or based on the anticipated hazards associated with the project. Work clothes include long pants, short or long sleeve shirt and other winter clothing. If upgrade to level C respiratory protection is necessary the appropriate respirator cartridges will provide protection against hydrogen sulfide and volatile organics, but not oxygen deficient atmospheres due to methane gas displacement of ambient air. <sup>1</sup>The type of chemical resistant glove (i.e. disposable rubber, nitrile, other) must be selected based on the anticipated chemical

hazards.

<sup>2</sup>Must be reviewed on a case by case basis.