

APPENDIX I

DRAFT SITE MANAGEMENT AND OPERATIONS PLAN



TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION.....	I-1
2.0 PROJECT PERSONNEL .....	I-2
2.1 MILLER SPRINGS REMEDIATION MANAGEMENT, INC. PROJECT MANAGER.....	I-2
2.2 ENGINEER'S PROJECT MANAGER.....	I-2
2.3 SITE ENGINEER AND/OR TECHNICIAN.....	I-2
2.4 QA OFFICER.....	I-3
2.5 FIELD QA OFFICER.....	I-3
2.6 CONTRACTORS.....	I-3
2.7 U.S. ENVIRONMENTAL PROTECTION AGENCY.....	I-5
3.0 REMEDIAL ACTION ACTIVITIES .....	I-6
3.1 MOBILIZATION.....	I-6
3.2 SITE SECURITY SYSTEMS.....	I-7
3.3 CLEARING AND GRUBBING .....	I-7
3.4 SITE SURVEY .....	I-7
3.5 CONSTRUCTION OF TEMPORARY EROSION CONTROL AND STORMWATER MANAGEMENT MEASURES.....	I-8
3.6 INSTALLATION OF TEMPORARY SITE UTILITIES.....	I-8
3.7 CONSTRUCTION OF STAGING AREAS .....	I-9
3.8 REMOVAL OF EXISTING SITE COMPONENTS.....	I-9
3.9 EXCAVATION AND DISPOSAL/USE OF SOIL AND DEBRIS .....	I-9
3.10 IMPORTED MATERIAL/EQUIPMENT MANAGEMENT .....	I-10
3.10.1 RECEIPT OF IMPORTED MATERIALS/EQUIPMENT .....	I-10
3.10.2 MONITORING OF IMPORTED MATERIALS/EQUIPMENT .....	I-10
3.11 WELL INSTALLATION .....	I-11
3.12 CONTROL BUILDING ERECTION.....	I-12
3.13 FORCEMAIN/CONTROL CONDUIT CONSTRUCTION .....	I-12
3.14 RESTORATION OF AFFECTED AREAS.....	I-13
3.15 STARTUP AND COMMISSIONING.....	I-13
3.16 DEMOBILIZATION .....	I-13
3.17 RECORD KEEPING AND REPORTING.....	I-13
3.17.1 RECORD KEEPING.....	I-14
3.17.2 MONTHLY REPORT .....	I-14
3.17.3 QUARTERLY REPORT.....	I-14
4.0 REMEDIAL ACTION OPERATIONAL REQUIREMENTS .....	I-15
4.1 MAINTENANCE OF ACCESS ROADS/STAGING AREAS.....	I-15
4.2 MAINTENANCE OF EROSION CONTROL AND STORMWATER MANAGEMENT MEASURES.....	I-15

TABLE OF CONTENTS

	<u>Page</u>
4.3	MAINTENANCE OF EQUIPMENT .....I-16
4.4	MAINTENANCE OF MISCELLANEOUS SITE FEATURES .....I-16
4.5	DUST CONTROL.....I-16
4.6	NOISE CONTROL .....I-17
4.7	FIRE CONTROL.....I-17
4.8	LITTER CONTROL .....I-17
4.9	EQUIPMENT DECONTAMINATION.....I-17
4.10	PERSONNEL DECONTAMINATION.....I-18
5.0	REMEDIAL ACTION CONTINGENCY PLAN .....I-19
6.0	HEALTH AND SAFETY PLAN.....I-20
7.0	PROJECT SCHEDULE.....I-21

LIST OF FIGURES  
(Following Text)

FIGURE 2.1      PROJECT ORGANIZATION



## 1.0 INTRODUCTION

This draft Site Management and Operations Plan (SMOP) has been prepared for the Operable Unit-3 (OU-3) Remedial Action (RA) at the Hooker Chemical/Ruco Polymers Superfund Site (Site) in Hicksville, New York. This SMOP will be finalized and submitted to the EPA within 30 days of arranging a contract for construction of the Phase I Biosparge System. The RA at the Site will be performed in accordance with the Final 100% Remedial Design (RD) Report; the Record of Decision (ROD) dated September 29, 2000; and the Administrative Order (AO) entered into on April 26, 2001. The RD has been prepared in accordance with the conceptual design for the biosparge remedy presented in the report entitled "Off-Site Groundwater Predesign Information Report" dated November 2002 that was approved by the United States Environmental Protection Agency (USEPA) on July 29, 2003. This SMOP is a component of the RD and has been prepared based on the components outlined in the Final RD Report.

The primary RA activities at the Site include:

- i) construct, operate, and monitor Phase I of the biosparge remedy. Phase I is a portion of the middle fence;
- ii) evaluate the Phase I results to modify the final design for the middle fence, north fence, and potential south injection wells; and
- iii) construct, operate, and monitor the remainder of the middle fence, north fence, and south wells.

This SMOP addresses the Site activities anticipated during the implementation of the Phase I activities, as well as the other RA components described in the Final RD Report. The SMOP will also identify the interrelationships between the RA activities to be performed at the Site.

This SMOP has been organized into the following sections:

- Section 1.0 - Introduction;
- Section 2.0 - Project Personnel;
- Section 3.0 - Remedial Action Activities;
- Section 4.0 - Remedial Action Operational Requirements;
- Section 5.0 - Remedial Action Contingency Plan;
- Section 6.0 - Health and Safety Plan; and
- Section 7.0 - Project Schedule.

## **2.0 PROJECT PERSONNEL**

This section presents the key personnel who will be involved with the implementation of the RA, which will involve interaction and co-ordination among several organizations. Brief descriptions of the duties that will be performed by personnel associated with the RA are presented below. The project organization chart is presented on Figure 2.1.

### **2.1 MILLER SPRINGS REMEDIATION MANAGEMENT, INC. PROJECT MANAGER**

Miller Springs Remediation Management, Inc. (MSRMI) will be responsible for overseeing the project and ensuring that all aspects of the RD, AO, and ROD are fulfilled during the performance of RA activities.

The MSRMI Project Manager will be responsible for overseeing the project and ensuring that the requirements of the RD, ROD, and AO are met during the performance of the RA activities. The MSRMI Project Manager will act as the main liaison with the USEPA and other involved parties.

### **2.2 ENGINEER'S PROJECT MANAGER**

CRA has been selected by MSRMI as the Engineer responsible for providing engineering support in the interpretation/clarification of the design documents and performance of design modifications, should they be required to address unforeseen Site conditions, during all RA activities. The Engineer will provide a Project Manager and a Professional Engineer, licensed in the State of New York, to provide oversight during the performance of the RA and provide certification that the RA was performed in accordance with the RD. An Industrial Hygienist will also be available to assist with implementation of the Site Health and Safety Plan (HASp) as necessary.

### **2.3 SITE ENGINEER AND/OR TECHNICIAN**

A Site Engineer/Technician, who will be responsible for RA construction oversight activities, will also be provided. On-Site oversight will be provided on an as-needed basis for all RA activities.



The Site Engineer/Technician will be responsible for ensuring that both the Project Technical Consultant Quality Assurance (QA) officer and Field QA Officer conform to the project schedule.

#### **2.4 QA OFFICER**

The QA officer will be responsible for ensuring sample analysis and reporting by the Project Laboratory are performed according to the protocols and procedures identified in the Quality Assurance Project Plan (QAPP) in Appendix G.

#### **2.5 FIELD QA OFFICER**

The Field QA Officer will be responsible for ensuring samples are collected, handled, and submitted to the laboratory according to the protocols and procedures identified in the QAPP.

#### **2.6 CONTRACTORS**

MSRMI is in the process of selecting RA Contractors (Contractor) to implement the RA. Brief descriptions of the Contractors' on-Site personnel and responsibilities during the RA are presented below.

##### **Site Manager**

The Site Manager will be responsible for managing daily operations, supervising Contractor personnel and personnel hired by the Contractor, implementing maintenance activities for on-Site equipment and structures, implementing the HASP, and monitoring compliance of RA activities with federal, state, and local regulatory requirements. The Site Manager will have completed the Occupational Safety and Health Administration (OSHA) 29 CFR 1910.120 40-Hour Hazardous Waste Operations and Emergency Response Course, as well as an updated 8-hour refresher course, if applicable; an updated first-aid/CPR course; and a supervisory training course.

The Site Manager may assume the responsibilities of the Site Health and Safety Officer (HSO).

### Site Health and Safety Officer

The Site HSO is responsible for coordinating/implementing day-to-day health and safety procedures. The HSO will advise the Site Manager on health and safety issues and will establish and assist with the Site air monitoring program. The HSO will have completed the OSHA 29 CFR 1910.120 40-Hour Hazardous Waste Operations and Emergency Response Course, as well as an updated 8-hour refresher course, if applicable. The HSO is the primary Site contact on occupational health and safety. The responsibilities of the HSO are further presented in the HASP (Appendix F).

The Site HSO will also be responsible for recording the physical condition of all vehicles that leave the Site to ensure that they have been properly decontaminated.

### Equipment Operators/Drillers

The Equipment Operators will be responsible for operating heavy construction equipment to handle soil excavation and placement, performing compaction, grading the excavated areas, and performing overall Site maintenance. Drillers will be responsible for well installation. Because of the potential of contact with impacted soils at a depth greater than 200 ft. bgs, the Drillers will have completed the OSHA 29 CFR 1910.120 40-Hour Hazardous Waste Operations and Emergency Response Course, as well as an updated 8-hour refresher course, if applicable. The Equipment Operators/Drillers will report directly to the Site Manager.

### Project Laboratory

The project laboratory will perform chemical analyses for all samples collected. Specific information regarding the sampling and analysis program is provided in the Quality Assurance Project Plan (QAPP) in Appendix G.

The specific responsibilities of other project laboratory personnel are as follows:

#### Laboratory Project Manager - Analytical Contractor

- ensures resources of laboratory are available on an as-required basis;
- coordinates laboratory analyses;
- supervises laboratory's in-house Chain of Custody;
- schedules analyses of samples;
- oversees review of data;

- oversees preparation of analytical reports; and
- approves final analytical reports prior to submission to the client.

#### Laboratory QA/QC- Analytical Contractor

- overviews laboratory QA/QC;
- overviews QA/QC documentation;
- conducts detailed data review;
- decides laboratory corrective actions, if required; and
- provides technical representation for laboratory QA/QC procedures.

#### Laboratory Sample Custodian - Analytical Contractor

- receives and inspects the sample containers;
- records the condition of the sample containers;
- signs appropriate documents;
- verifies Chains of Custody and their correctness;
- notifies laboratory project manager and laboratory QA Officer of sample receipt and inspection;
- assigns a unique laboratory identification number correlated to the field sample identification number, and enters each into the sample receiving log;
- initiates transfer of the samples to the appropriate lab sections with assistance from the laboratory project manager; and
- controls and monitors access to and storage of samples and extracts.

## 2.7 U.S. ENVIRONMENTAL PROTECTION AGENCY

The USEPA may have an On-Site Representative to monitor RA activities. Communications between the USEPA and MSRMI relating to RA activities will be handled as described in the following report sections.

### 3.0 REMEDIAL ACTION ACTIVITIES

This section identifies the RA activities that will be implemented for this project. The activities are not necessarily listed in the order in which they will be implemented. The Contractor will be required to submit plans for each phase of the work and identify critical path activities for approval by MSRMI, Engineer, and the USEPA.

The RA activities that will be performed include:

- i) mobilization;
- ii) provision and maintenance of construction facilities and temporary controls;
- iii) construction of control building and installation of all equipment;
- iv) furnish and install all piping and manual valves;
- v) construction of reinforced concrete slabs on grade for equipment;
- vi) supply and installation of insulation for outside piping and equipment;
- vii) installation of injection, groundwater monitoring, and vadose zone monitoring wells;
- viii) supply and installation of all metal fabrications including piping supports, equipment supports, and bollards;
- ix) supply and installation of all necessary electrical items including interconnecting wiring and grounding;
- x) paint supports and miscellaneous steel fabrication in accordance with paint specification;
- xi) cleaning, inspecting, and testing of the installed system;
- xii) commissioning and startup assistance; and
- xiii) demobilization and closeout.

A schedule for the RA activities to be performed is referenced in Section 8.0. A brief summary of each RA activity is presented below.

#### 3.1 MOBILIZATION

The Contractor will mobilize any field trailers deemed necessary to the Site for use as field offices. In addition, the Contractor will mobilize the necessary construction equipment and materials needed to perform the RA activities, and set up a temporary equipment maintenance area.

Prior to movement of equipment to the Site, a photographic record of South Oyster Bay Road, Hazel Street, and all other areas (e.g., Northrop Grumman property) planned to be used as access roads/staging areas, will be obtained to document the initial condition of the roads and surface features.

All field trailers and construction equipment will be equipped with two-way radios to facilitate regular communications. They will also be equipped with a fire extinguisher. The Contractor will submit plans showing the approximate locations of an proposed field trailers, equipment trailers, decontamination units, the staging areas for construction equipment, and the temporary equipment maintenance area.

### **3.2 SITE SECURITY SYSTEMS**

Existing chain link fences and gates will be maintained during the implementation of the RA. Any fences or gates that are affected by work areas will be relocated. Safety fencing or other appropriate devices will be erected to prevent unauthorized entry into work areas and to delineate the exclusion zone, contaminant reduction zone, and contaminant-free areas.

### **3.3 CLEARING AND GRUBBING**

Clearing will be performed in stages as work progresses. Clearing may be performed to facilitate the construction of utilities/forcemains, the control building, and injection/monitoring wells. Clearing is defined as the removal of trees, brush, down timber, rotten wood, other vegetation, concrete, and pipe down to the ground surface.

Trees will be removed using chain saws and the occasional use of heavy construction equipment. Disturbance of the ground will be kept to a minimum. Any mulch, tree trunks, and branches not used for RA purposes will be disposed off Site at a sanitary waste facility.

### **3.4 SITE SURVEY**

A Site survey will be performed to document topographical conditions and establish coordinates/elevations for the remedy components. Existing Site survey benchmarks will be identified and used as control points for surveying. Additional temporary

control points will be established throughout the Site in order to accurately construct the remedy.

### **3.5 CONSTRUCTION OF TEMPORARY EROSION CONTROL AND STORMWATER MANAGEMENT MEASURES**

Prior to earth work activities, appropriate temporary erosion control and stormwater management measures will be installed along the perimeter of work areas outside the RA limits of disturbance. The erosion control measures will reduce the velocity of stormwater runoff by acting as a permeable barrier. Intercepted runoff will filter through the erosion control materials, allowing the deposition of transported sediments. This measure is intended to minimize the amount of suspended soil material that is transported to downgradient stormwater catchbasins and to control erosive sheet-flow velocities.

All practicable efforts will be made to route stormwater flow around exposed or excavated soils. Such measures may include earth berms.

### **3.6 INSTALLATION OF TEMPORARY SITE UTILITIES**

The temporary utilities that will be necessary for the proper execution of all RA activities include:

- i) electricity;
- ii) telephone service; and
- iii) sanitary facilities.

Electricity will be provided by either the local utility company or by use of a diesel powered generator. An electrical service installation will be coordinated with the local utility company. Electricity will be installed and connected to all on-Site trailers and buildings that will be constructed or used during the RA. Electricity and lighting will be installed by a licensed electrician in accordance with all applicable codes and standards, as well as local utility company requirements.

Telephone service will be provided by cell phone.

Portable sanitary facilities will be placed in a strategic location at the Site to be used during the RA.

### **3.7 CONSTRUCTION OF STAGING AREAS**

Staging areas for temporary storage of construction materials/equipment will be established in consultation with Northrop Grumman. These areas may require relocation based on Northrop Grumman's future plans for the property on which the staging area is established.

Following completion of construction activities (or relocation), all materials used for construction of the staging areas will be removed from the Site.

### **3.8 REMOVAL OF EXISTING SITE COMPONENTS**

Some of the existing components at or in the vicinity of the Site, such as the concrete curbs, chain link fences, and gates, may be removed or relocated to implement the RA, as necessary. Removed components which can be reused will be sorted and stockpiled in the staging area prior to reuse. Components which can not be reused will be disposed off Site.

### **3.9 EXCAVATION AND DISPOSAL/USE OF SOIL AND DEBRIS**

All excavated debris (e.g., asphalt, concrete curbs, etc.) will be disposed off Site at a sanitary facility.

Soils will be segregated based on their depth. Soils above 200 ft bgs for the north fence and above 300 ft bgs for the middle fence are considered clean and may be reused to backfill excavations or as backfill material to be used for the decommissioning of the former Hooker/Ruco property (Bayer facility). Soils below the above depths will be containerized, sampled, and analyzed for off-Site disposal. Analyses will be in accordance with the proposed disposal facility's requirements.

### **3.10 IMPORTED MATERIAL/EQUIPMENT MANAGEMENT**

During the construction of the RA, imported materials/equipment will be used at the Site. These include aggregates, piping, control building components, and injection and monitoring well components. This section describes the procedures that will be used to properly manage imported materials/equipment.

#### **3.10.1 RECEIPT OF IMPORTED MATERIALS/EQUIPMENT**

Material/equipment will be sequentially brought to the Site so as to not interfere with construction of the remedy and, to the extent practical, with the use of the property by the property owner(s).

#### **3.10.2 MONITORING OF IMPORTED MATERIALS/EQUIPMENT**

Imported materials/equipment at the Site will be monitored continuously by the Contractor to ensure that only acceptable materials/equipment are received. This monitoring will consist of pre-receipt and visual observation/inspection of the materials/equipment received at the Site at both staging and working areas.

Pre-receipt control for imported materials/equipment will consist of meeting the standards described in the specifications using the testing methods for the relevant material described in the specifications. The supplier shall submit the required results/information 7 days prior to transport of the materials/equipment to the Site. For materials/equipment determined to be acceptable, notation of such, including initials of the reviewer and date, will be made on the submitted results/information.

At the entrance area, the Contractor will visually inspect the material/equipment received in accordance with the requirements of the CQAPP. For aggregate/soil, the type, weight, and estimated volume of material contained in the hauling vehicle will be recorded. If obvious color and/or compositions inconsistencies are observed in the soil/aggregate, the load will not be accepted on Site. Also, in the working area the Equipment Operators will observe each load of soil/aggregate after it is discharged from the hauling vehicle.

The visual inspection is intended to ensure the imported soil/aggregate are free from unsuitable materials such as:



- i) frozen material or material containing snow or ice;
- ii) trees, stumps, branches, roots, or other wood or lumber; and
- iii) wire, steel, cast iron, cans, drums, or other foreign material.

Other materials/equipment will be visually inspected in accordance with the requirements presented in the CQAP. Materials/equipment determined to be unacceptable will be returned to the supplier.

Upon receipt of unacceptable materials/equipment, the Site Manager will immediately notify the Site Engineer and inform them of the quantity and type of material/equipment received and its disposition.

### 3.11 WELL INSTALLATION

The injection, groundwater monitoring, and vadose zone monitoring wells will be installed by drillers licensed in New York State. All imported materials/equipment for well construction will be monitored pursuant to the procedures described in Section 3.10. All downhole equipment (e.g., augers) and well risers and screens will be decontaminated pursuant to the procedures in Section 4.9. Cleaned material/equipment will be periodically inspected by the Site Manager.

Borehole drilling will be performed using either hollow stem auger/mud rotary and/or rotary sonic methods. Soil samples will be collected and screened with a PID. If HSA/mud rotary method is used, geophysical logging will also be performed. Groundwater samples will be collected at 50-foot intervals starting at 200 ft bgs for the north fence and 300 ft bgs for the middle fence. The PID, groundwater, and geophysical results will be reviewed to select the appropriate interval for the injection and groundwater monitoring wells screens. The injection and groundwater monitoring wells will be developed to a silt free condition after allowing a minimum of 48 hours for the grout/cement collar to set. Decontamination sediment and water and well development water will be containerized and analyzed to determine appropriate treatment/disposal.

Excess drill cuttings from ground surface to 200 ft bgs at the north fence and to 300 ft bgs at the middle fence will be segregated from the excess cuttings at greater depths. The excess cuttings from above these depths will be placed in containers for use at the Hooker/Ruco Site as fill/grading material.

The health and safety procedures to be followed are presented in the HASP (Appendix F).

### **3.12 CONTROL BUILDING ERECTION**

Prior to construction, the appropriate variances and permits will be obtained from the local municipal governments. Also, arrangements for permanent utilities will be made. Soil excavated for the control building will be placed beside the excavation for use as backfill around the building foundation. Excess soil will be placed in containers for use at the Hooker/Ruco Site as fill/grading material.

After clearing and excavation, the building footings and foundations will be constructed. After allowing sufficient time for the concrete to cure, the building will be erected. Thereafter, the control, instrumentation, and process equipment will be installed.

The contractor will be required to provide a steel-erection plan as part of their Site-specific health and safety plan. Additional details with regard to the health and safety procedures to be followed are provided in the HASP (Appendix F).

### **3.13 FORCEMAIN/CONTROL CONDUIT CONSTRUCTION**

Prior to construction, arrangements will be made with the appropriate local municipal governments with regard to construction of the forcemains/control conduits beneath public roadways. These include Hazel Street (Town of Oyster Bay) and South Oyster Bay Road (Nassau County).

Soil excavated for the forcemain/control conduits will be placed beside the excavation for use as backfill in the trenches. Excess soil will be placed in containers for use at the Hooker/Ruco Site as fill/grading material.

After excavation to the required depth, the forcemain/control conduits will be placed upon a bed of compacted native sand material. A layer of native sand material will be placed above the forcemain/control conduits. If suitable native materials are not available, an engineered granular backfill will be used. The remainder of the trench, except the upper interval which will be rehabilitated, will be backfilled with the excavated soil.

The surface will then be rehabilitated as described in Section 3.14.

### **3.14 RESTORATION OF AFFECTED AREAS**

All areas and structures (e.g., roadway curbs, sidewalks, etc.) removed or damaged during construction of the remedy will be rehabilitated/replaced to prior or better than prior condition. The replacement/rehabilitation will be in accordance with the applicable local rules and regulations.

### **3.15 STARTUP AND COMMISSIONING**

Upon completion of construction of each phase of the biosparge system, that phase will be started up and tested to ensure proper operation. The Contractor and equipment representatives, as needed, will assist with this activity. Thereafter, the system will be operated and monitored.

### **3.16 DEMOBILIZATION**

Upon the completion of all RA activities, all equipment, materials, supplies, and personnel will be demobilized from the Site. All equipment coming in contact with impacted soils (greater than 200 ft bgs) will be decontaminated as outlined in Section 4.9. Also, all applicable utility companies will be notified of the cessation of RA activities, and all temporary utilities will be returned to pre-existing conditions unless specifically instructed, in writing, otherwise.

The condition of South Oyster Bay Road, Hazel Street, and all other access roads/areas used on private property (e.g., Northrop Grumman) will be reviewed and compared to the initial photographic documentation conducted prior to RA activities. Any damage observed will be repaired to pre-RA conditions.

### **3.17 RECORD KEEPING AND REPORTING**

This section describes the record keeping and reporting requirements that will be implemented. A discussion of each requirement is presented below.

### **3.17.1 RECORD KEEPING**

All records generated during the RA, including daily work sheets, analytical results, sample logs, field logs, chain of custody form, bills of loading, manifests, reports, and billings will be maintained by the Site Manager. The Site Manager will also compile the quantity of materials received at the Site and shipped off-Site by origin and material category. A copy of the Daily Material Reports will be provided to the Site Engineer.

In addition, a Daily Project Report will be generated by the Site Manager to document all inspections, maintenance, and compliance activities conducted each day. For inspection and maintenance activities, the report will include the date and time of the inspection and/or maintenance activity, the name of the inspector and/or maintenance personnel, the nature of the inspection and/or maintenance, and the conditions observed and/or repairs made. For compliance activities, the report will include all data used to demonstrate compliance at the Site. The Daily Project Reports will be retained at the Site by the Site Manager.

### **3.17.2 MONTHLY REPORT**

The Site Manager will prepare Monthly Reports summarizing the information included on the Daily Material and Daily Project Reports. These reports will be submitted to MSRMI. The Monthly Reports will be retained at the Site by the Site Manager.

### **3.17.3 QUARTERLY REPORT**

The Monthly Reports will be used to prepare the Quarterly Report to be submitted to the USEPA.

#### 4.0 REMEDIAL ACTION OPERATIONAL REQUIREMENTS

During the course of the RA, the Contractor will implement several operational requirements to ensure that Site conditions are protective of human health and the environment.

##### 4.1 MAINTENANCE OF ACCESS ROADS/STAGING AREAS

Access roads/staging areas used during the RA will be maintained in a passable and safe condition at all times. If the RA progresses into winter months, the Contractor will manage snow and ice removal in areas where such is not performed by other parties during RA activities, as necessary. Road salt will not be used.

##### 4.2 MAINTENANCE OF EROSION CONTROL AND STORMWATER MANAGEMENT MEASURES

The temporary erosion control and stormwater management measures will be maintained in a condition that allows continuous control of surface water and minimizes erosion. All silt fencing and straw bales will be inspected weekly and within 24 hours of the end of a storm that is 0.5 inches or greater for conditions that would affect flow, such as:

- i) washouts;
- ii) excessive sediment build up in along silt fencing/strawbales;
- iii) erosion;
- iv) damaged silt fencing;
- v) dislodged/damaged straw bales; and
- vi) damaged sediment control fabric.

An inspection log will be kept by the Site Manager. Washouts and excessive erosion, will be repaired as quickly as possible. Silt fencing that has been damaged from runoff or blocked by sediment build up will be repaired or replaced as necessary. Any replaced fencing will be disposed off Site. Damaged or dislodged straw bales will either be replaced in their original location or supplemented by placing new material.

Soil/sediment removed during a repair activity may be replaced within the eroded area.

#### **4.3 MAINTENANCE OF EQUIPMENT**

Equipment Operators will routinely inspect and repair Site equipment used during the RA based on the equipment manufacturer's recommendations. Observations during the equipment inspections and the maintenance activities performed will be documented on the Daily Project Reports. The Contractor will retain or have ready access to additional equipment in the event of a major breakdown or as required.

#### **4.4 MAINTENANCE OF MISCELLANEOUS SITE FEATURES**

Maintenance of other Site features will be performed on a routine basis, as described below:

- i) Site security measures will be inspected weekly to ensure that the Site is properly secured and will be repaired as needed to properly secure the access points and other areas along the perimeter of the work area; and
- ii) on-Site buildings used to support RA activities will be inspected quarterly and maintained as needed.

#### **4.5 DUST CONTROL**

Primary dust control at the Site will be accomplished through the use of water using a hand-held sprayer or other suitable and similarly effective means. Water will be available from the sources described in Section 3.6. The quantity of water added to control dust will be minimized to prevent erosion problems.

The RA activities will comply with the Air Pollution Control Act, the Clean Air Act, the Ambient Air Quality Standards, and relevant State of New York requirements relating to fugitive dust control, which include, at a minimum:

- i) the use of water for dust control, if necessary, during clearing activities; and
- ii) the application of water on material stockpiles.

Control measures will be implemented to prevent the tracking of materials from the Site onto public roadways.

Additional control measures may be required occasionally, including using a road sweeper for paved roadways, or spraying small quantities of water on dusty materials during excavation and/or before dumping.

#### **4.6 NOISE CONTROL**

The Site is located within an industrial/commercial area with the closest residences located approximately 1200 feet from the work area. This distance will mitigate most noise impacts. Also, construction will occur during daylight hours, which should minimize the Site noise disturbances to any affected residences. Hauling to and from the Site will be minimal and will occur during daylight hours to minimize noise. To further alleviate potential noise impacts, the Site equipment will be operated at speeds and accelerations within the manufacturer's recommendations, and the equipment will be equipped with the appropriate noise control devices (i.e., mufflers). In the event of noise complaints, the complaint will be substantiated through an analysis of Site activities being performed at the time the potentially excessive noise was observed, the source determined, and the appropriate mitigative action will be initiated.

#### **4.7 FIRE CONTROL**

The possibility of a fire outbreak, whether on the Site or within a piece of construction equipment, will require continual surveillance during daily operating activities. Portable fire extinguishers will be kept on all Site equipment and in every Site structure. To control larger, more serious fire outbreaks, the local fire department will be notified immediately upon observation of the fire. The fire contingency plan is provided in the HASP in Appendix F.

#### **4.8 LITTER CONTROL**

Litter dispersal should not be a problem during the construction of the RA because housekeeping activities will be performed on a continual basis.

#### **4.9 EQUIPMENT DECONTAMINATION**

Construction equipment used for excavation activities during the RA will contact only clean soil. Such equipment will be cleaned by removing any bulk quantities of soil that

may be dislodged during off-Site transport. Drilling equipment used at a depth greater than 200 ft bgs will be decontaminated before it is initially used, prior to its use for a subsequent borehole, and before exiting the Site. Initially, any bulk quantities of soil will be removed from areas of the drilling equipment that came in direct contact with soils from deeper than 200 ft bgs. The equipment will then be staged on a decontamination pad and cleaned to remove residual material. Decontamination will be limited to rinsing with water.

A decontamination pad will be constructed in a location selected in consultation with Northrop Grumman . A schematic of the decontamination pad is provided in the HASP. Sediments and water collected on the decontamination pad will be dewatered, containerized, analyzed, and disposed off Site.

Additional information regarding equipment decontamination is provided in the HASP in Appendix F.

#### **4.10 PERSONNEL DECONTAMINATION**

Personal Protective Equipment (PPE) and monitoring equipment must either be decontaminated or properly discarded upon exiting an exclusion zone or restricted access area. This process prevents cross-contamination to clean areas. All personnel must enter and exit the exclusion zone through the contaminant reduction zone and decontamination area. The configuration of these zones is defined in the HASP in Appendix F.

Wastewater from the personnel decontamination facility will be pumped to designated storage tanks. The collected water will be characterized in accordance with the requirements of and disposed at an appropriate off-Site facility.

Additional information regarding decontamination of personnel is provided in the HASP in Appendix F.



## 5.0 REMEDIAL ACTION CONTINGENCY PLAN

Several operating contingency plans have been developed to address courses of action to be taken when responding to emergencies or other unexpected conditions that may be encountered during the performance of the RA. The operating contingency plans that may be implemented during the course of RA activities are described in the HASP in Appendix F.

**6.0 HEALTH AND SAFETY PLAN**

The HASP is provided in Appendix F of the Final RD Report.

## 7.0 PROJECT SCHEDULE

The Project Schedule for the Site RA activities is presented on Figure 10.1 of the Final RD Report. This schedule identifies the construction, implementation, and operational activities that will be performed during the RA, as well as the duration of each activity. The initiation of RA activities shown in the Project Schedule depends on USEPA review, comment, and approval of the Final RD Report. Therefore, the actual schedule of RA activities may require revision, depending on when the Final RD Report is approved.



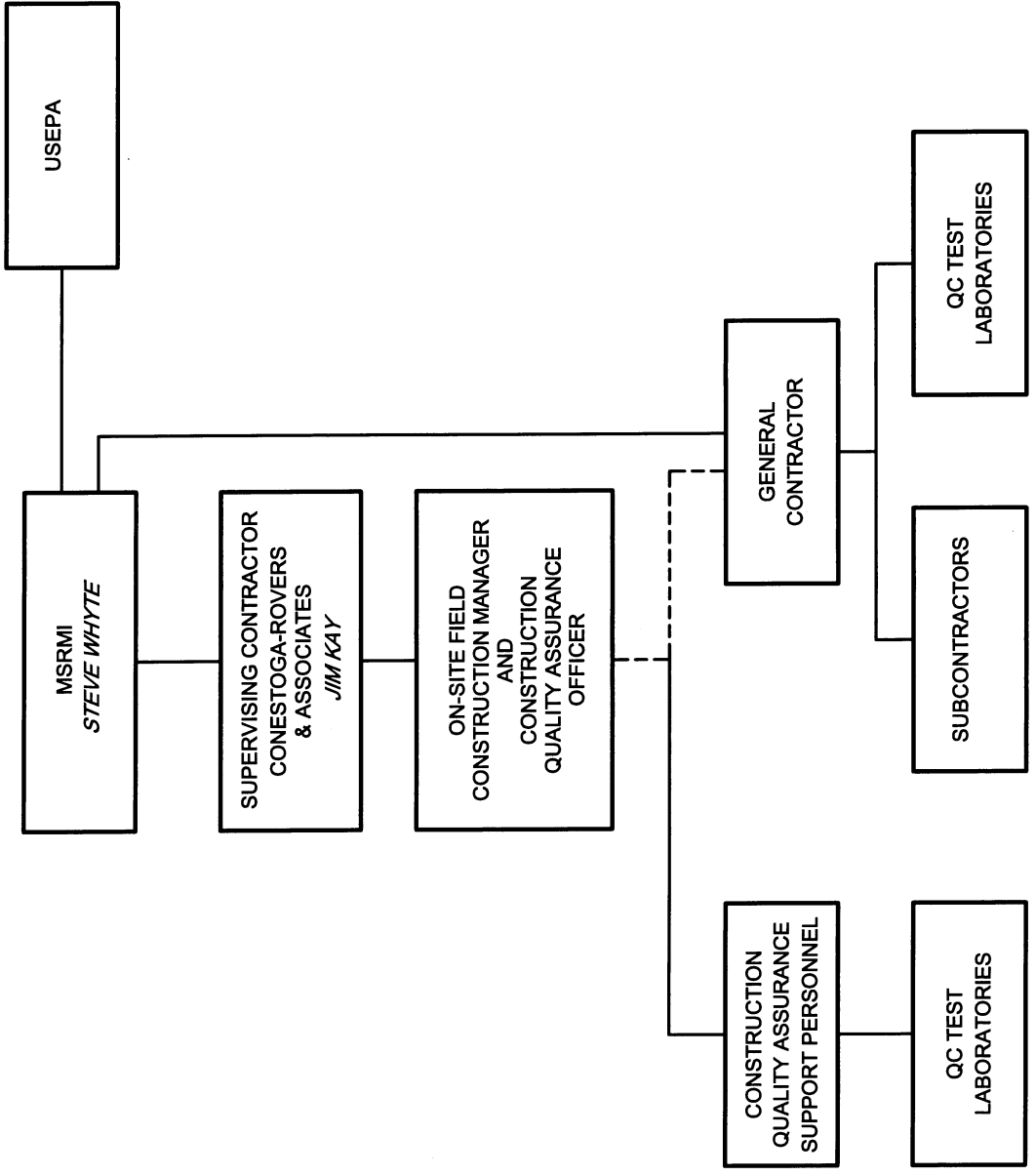


figure 1.2.1  
 PROJECT ORGANIZATION  
 REMEDIAL CONSTRUCTION ACTIVITIES  
 OU-3 FINAL (100%) DESIGN REPORT  
 Hooker/Ruco Site, Hicksville, New York



