

Pompton Lake Study Area
CONTINGENCY PLAN

Pompton Lakes, New Jersey



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Table of Contents

1.0	Introduction	1
2.0	Spill Prevention	3
2.1	Potential Sources of Impacts	3
2.2	Prevention Procedures	3
2.2.1	General	3
2.2.2	Fuels and Lubricates	3
2.3	Spill Response Procedures	5
2.3.1	Priorities	5
2.3.2	Discovery of Spill	6
3.0	Odor Control Methods	7
4.0	Adverse Weather Contingencies	8
4.1	Rain	8
4.2	Snow	8
4.3	Hot Weather	8
4.4	Cold Weather	8
4.5	Strong Winds	9
5.0	Hazardous Weather Contingencies Including Flood Control Contingencies	10
6.0	Marine Contingency Measures	12
6.1	Potential Releases during Fueling Operations	12
6.2	Potential Releases during Dredge Operations	12
6.3	Potential Releases from Hydraulic Dredge Pipeline	13
6.3.1	Floating Pipeline	13
6.3.2	On Land Pipeline	14
6.4	Potential Releases During Mechanical Dredge Scow Transport	14
7.0	Sediment Processing/Wastewater Treatment Spill Responses	15
7.1	Tank Overflow	15
7.2	Pipeline Rupture	15
7.3	Mechanical Failures	15
8.0	Damage to Overhead and Underground Utilities	17

9.0	Emergency Vehicle Access and Egress Routes.....	18
10.0	Offsite Disposal Truck Material Spills.....	22
11.0	Evacuation Procedures.....	23
11.1	Safe Distances and Places of Refuge.....	23
11.2	Evacuation Procedures.....	23
11.3	Evacuation Signals and Routes.....	24
12.0	Emergency Numbers and Route to the Hospital.....	25
13.0	Responsible Persons.....	29

Tables

Table 1 – Emergency Telephone Numbers.....	27
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Figures

Figure 1 – Emergency Notification Chain of Command.....	2
Figure 2 – Dredging/Solidification Phase Access Roads.....	19
Figure 3 – Sheetpile Installation Phase Access Roads.....	20
Figure 4 – Upland Excavation and Shallow Water Delta Dredge Phase Access Roads.....	21
Figure 5 – Map and Directions to Hospital.....	28

Appendices

Appendix A – Chemours Unexpected Occurrence Reporting Requirements
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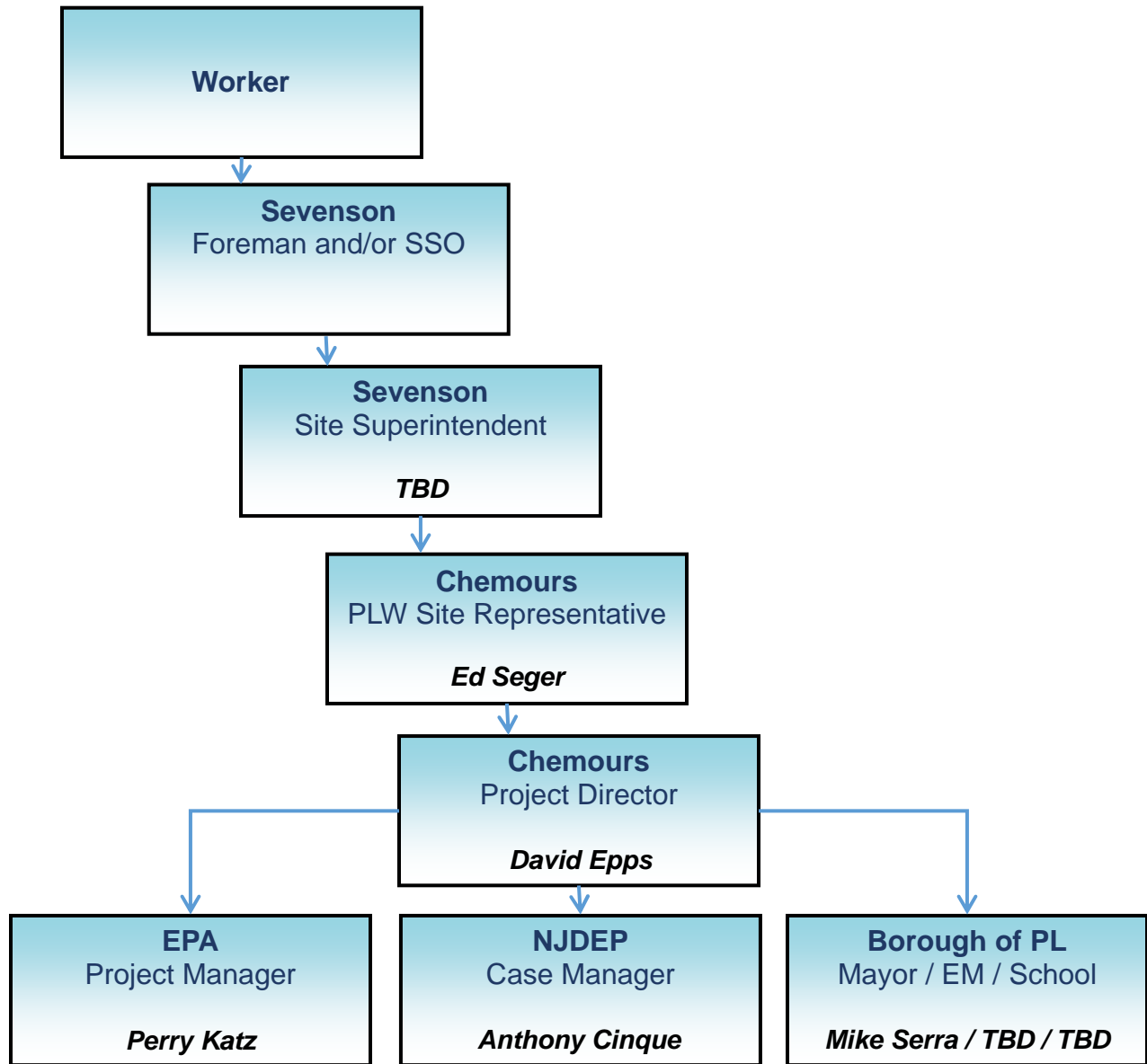
1.0 Introduction

This Contingency Plan is designed to aid site personnel in responding quickly and effectively should activities change from those outlined in the Corrective Measures Implementation Work Plan (CMI WP), to which this document is an appendix.

The primary goal of this Contingency Plan is to limit the impact from any releases of dusts, excavated soils, dredged sediments, waters, mechanical fluids, or accidental fuel releases while assuring the safety of all personnel who may be affected. The Contingency Plan also establishes a framework for responding to mechanical accidents, natural disasters, medical emergencies, work stoppages, and fires. The following sections identify potential problems and provide a plan of action to minimize the impact of any such events. The Contingency Plan provides the reporting and notification chain of command should a release or an unexpected occurrence occur, preventive measures to avoid/contain a release, and corrective actions for isolating, containing and cleaning up a release. Appendix A to this Contingency Plan provides the Chemours Unexpected Occurrence Reporting Requirements.

Figure 1 summarizes the notification chain of command for emergency communications. In the event of an unexpected occurrence, Severson personnel will notify the Pompton Lakes Works (PLW) Site Representative, who will notify the Project Director, in accordance with Appendix A. If a contingency plan modifies or changes an element of the approved CMI WP, the appropriate notices will be submitted for review and approval to the necessary parties.

Figure 1 – Emergency Notification Chain of Command



EM = Emergency Management (i.e., police, fire)
EPA = United States Environmental Protection Agency
NJDEP = New Jersey Department of Environmental Protection
PL = Pompton Lakes
PLW = Pompton Lakes Works
Sevenson = Sevenson Environmental Services, Inc.
SSO = Site Safety Officer
TBD = To Be Determined

2.0 Spill Prevention

The objectives of this section are to identify sources of potential impacts, establish procedures to prevent impacts to the environment, and establish containment and remediation procedures in the event of a spill.

Prior to mobilization to the site, Sevenson will identify a spill response contractor and notify them of the forthcoming site work and the potential for contact in the event of a spill.

2.1 Potential Sources of Impacts

The following is a list of potential materials that could impact either the soil or waterways onsite or in adjacent areas:

- **Fuel, Lubricants, and Other Fluids for Equipment Maintenance:** Potential spillage during refueling operations; leakage of storage tanks; spillage during routine maintenance operations; rupture of hydraulic lines, oil lines or fuel tanks; spillage during the initial fill of the process equipment drive units.
- **Contractor Generated Waste:** Spillage of materials used during construction work; curing compounds, form oils, glue, and paints.
- **Pesticides and Poisons:** Spillage of materials used during the control or elimination of vegetation or pests.
- **Impacted Soil, Sediment, or Debris:** Potential spillage during excavation, dredging and solidification operations from broken dredge pipes, material handling, and stabilization.

It is anticipated that Sevenson will not utilize pesticides or poisons during the course of the project. However, if pests become a problem, Sevenson will utilize mechanical traps or employ the services of a professional exterminator.

2.2 Prevention Procedures

2.2.1 General

Sevenson's Site Safety Officer (SSO) will be responsible for the administration of this plan and will obtain and maintain a file of Safety and Data Sheets (SDSs) of all chemicals brought onto the site by Sevenson or their subcontractors.¹ The SSO will also train project personnel to identify types of wastes, proper waste management, and liquid waste storage and disposal procedures.

The SSO will be responsible to ensure that first aid supplies, communication devices, personal floatation devices (PFDs), spill kits and fire extinguishers are available. When working adjacent to or over the water, Sevenson will have on hand at the work zone, oil booms and absorbent materials in case of a spill affecting the waterways.

2.2.2 Fuels and Lubricates

Sevenson intends to use a local fuel supplier to routinely fuel major pieces of equipment.

¹ SDSs will be provided for review prior to bringing chemicals onto the site.

This equipment will be fueled directly from the delivery truck at an onsite location located within or adjacent to the individual work zones as designated by the Site Superintendent. The equipment will be moved to a designated fueling area for refueling. The fueling locations will be contained within a bermed area lined with plastic membrane and covered with filter fabric to prevent spillage and contamination of the soil. A fire extinguisher and spill kit will be located at the fueling locations. The fuel delivery truck will be equipped with an automatic shutoff nozzle, a spill kit, absorbent spill clean-up materials, and a fuel tank table. The person performing the fueling will not leave the fueling unattended.

In addition to the equipment fueling operations described above, Severson will utilize onsite fuel storage tanks. A Flammable Area Storage Site Map will be updated as necessary to show the location of fuel tanks and flammable material storage areas. The map will be provided in the office trailer. Fuel tank and flammable material storage areas will be protected by collision barriers to prevent accidental damage from equipment movement. The fuel tank storage areas will also be enclosed with orange construction fence to limit access. Fuel tanks will contain an internal double-containment system in case of rupture to the inner shell. In addition, the tank (or nozzle) will be locked when not in use to prevent unauthorized use. The fuel tank will be properly grounded and will use a low voltage power source to operate the pump. Only Severson supervisory personnel will have keys to the fuel tank. Smoking onsite will be limited to designated areas only, which will be located outside of the work zones.

A fueling location, located adjacent to the fuel storage tank, will be constructed in the same manner as described above, with a berm and membrane liner covered with filter fabric. A fire extinguisher and spill kit will also be located at this location.

Refueling of small equipment will be accomplished using 2.5- and 5-gallon Type II safety cans. Small equipment will be refueled at the location of the equipment and in accordance with the Health and Safety Plan (HASP; Appendix C of the CMI WP). If possible, refueling will be performed on asphalt. All Type II fuel cans will be placed in an enclosed “flammable storage cabinet” located within the work zones for overnight storage. Flammable material storage areas will be designated inside the works zone in an area out of the way of equipment and vehicle traffic. The flammable material storage location will determined during mobilization activities when formal work areas are established, will be documented on the Flammable Area Storage Site Map which will be provided in the office trailer.

Lubricants will be stored in their original containers until used. All oil drums will be stored on a “drum caddy,” which provides secondary containment of spills, drips, and leaks. Care will be used during maintenance operations to prevent spillage of motor or hydraulic oil. Used motor and hydraulic oil will be collected and stored in appropriate containers until picked up for recycling or disposal.

All vehicles and equipment will be inspected daily for signs of either fuel or oil leakage. If discovered, the equipment will removed from service until the vehicle or equipment is repaired.

During initial filling of the process equipment with lubricants, Severson will consult the manufacturer’s operation manual to determine the amount of lubricant required by the equipment, and will take every precaution as not to overfill the equipment.

2.3 Spill Response Procedures

The objective of this section is to establish containment and remediation procedures in the event of a spill.

2.3.1 Priorities

For the purposes of this Contingency Plan, three spill “Priority” levels are used to rate the severity of the spill, with Priority 1 being the most severe spill/situation (e.g., fuel tanker explosion) that requires assistance from external emergency personnel, and Priority 3 being the least severe spill/situation that does not include injury to personnel. Additionally, Marine Priority and Offsite Priority responses have been defined for spills that occur on the water or offsite, respectively.

Priority Level 1:

External response (i.e., “911” emergency services) required for treatment of:

- Life threatening situations.
- Chemical releases producing a visible plume or exposure causing eye or throat irritation.
- Fires of all types (with or without exposure to spill).
- Traumas (with or without exposure to spill) such as fractures, open wounds, and falls.
- Sinking or capsized boats (with or without exposure to spill).

Priority Level 2:

- Internal response with first aid supplies for treatment of minor medical injuries (abrasions, lacerations, eye irritations etc.).

Priority Level 3:

- Internal response with spill supplies to confine liquid spills within a containment system and avoid release to the ground or water.

Marine Priority:

- Internal response of support with boat or marine vessels.

Offsite Priority:

- Offsite incidents involving transportation of waste material.

In case of a spill, Severson will immediately notify a PLW Site Representative by two-way radio or mobile phone who will then immediately notify the Project Director (see Figure 1). The Site Superintendent will assign the incident a Priority classification and notify the SSO.

In the event of a **Priority Level 1** incident, Severson will first notify emergency response teams by calling 911. The safety and protection of life and limb will take precedence over environmental protection. Trained personnel will use fire extinguishers or administer first aid until the emergency response teams arrive. If there is a threat to personnel safety, the spill area will be evacuated and monitored from a safe and upwind location.

2.3.2 Discovery of Spill

Upon discovery of the spill and in conjunction with notification to the PLW Site Representative, Severson will:

- Attempt to locate the source of the leak and plug the source to prevent further leakage.
- Deploy containment oil booms and absorbent materials to prevent the further spread of hazardous materials, capture standing contaminated liquids, and prevent liquid contamination from reaching surface water drainage systems.
- Remove or clean any material contaminated as a result of the spill. Spill contaminated soil will be excavated to “visually clean.” Spill contaminated materials will be placed in appropriate containers or stockpiles. The contents of the containers/stockpiles will be analyzed for disposal. The containers/stockpiles will be labeled and stored for disposal. The bottom of the excavated areas will be sampled and tested to confirm the materials contaminated as a result of the spill have been removed. Any required waste management/disposal activities will be done so in accordance with the Project-Specific Waste Management Plan (Attachment B to the Construction Quality Assurance Plan included as Appendix E to the CMI WP).
- Assist the PLW Site Representative/Project Director in notifying any regulatory agencies informing them of the release, as needed.

In case of a large spill beyond the capability of Severson’s onsite personnel, Severson will request assistance from a local emergency response contractor.

3.0 Odor Control Methods

As discussed in Section 2.7 of the CMI WP, nuisance odors associated with natural material and decay processes can be expected, however constituents of concern within project area soils and sediment are not expected to cause odors. Should odor become a problem during activities, Severson will implement any or all of the following odor control approaches:

- Minimize the extent/duration of open excavations
- Install backfill as soon as soil excavations are complete (approval dependent)
- Implement dust control measures (e.g., water mist/spray)
- Keep stockpiles to a minimum
- Cover stockpiles
- Maintain enclosures over individual pieces of equipment

An additional approach is to use a foaming agent on the open surface of the excavation. The foaming agent provides a barrier to contain the odor. An example of a type of foaming agent that could be applied includes, but is not limited to, Rusmar Foam Technology (product sheet provided in the Operations Plan [Appendix A to the CMI WP]). Should a foaming agent other than Rusmar be utilized, product information will be provided to the United States Environmental Protection Agency (EPA). Other technologies, such as odor neutralizers (which are not “deodorizers”), may be used if foaming agents are not effective. An example of this type of technology is the Piiian Flexi~Fog System (product sheet provided in the Operations Plan [Appendix A to the CMI WP]). If a foaming agent or technology other than those listed above is utilized, product information will be provided to EPA.

Stabilized sediment piles will be covered nightly with tarps or similar type cover. (Note: Due to the limited working space, very little processed material will be kept onsite.)

Note: Hydraulic dredging will be used in the Delta Area. Dredged sediment is transferred via a slurry line for transport to the solidification equipment. All sediment remains within a contained system until the sediment is mechanically solidified, thereby minimizing odor releases. Filter cake will be staged in piles prior to transportation offsite. Any filter cake left onsite will be covered nightly. Mechanical dredging operations will require sediment transport in open scows and sediment stabilization in stockpiles at the processing area. Odors will be continuously monitored during all mechanical dredging operations. If any odors are detected, measures will be applied to minimize and prevent further odor nuisance.

4.0 Adverse Weather Contingencies

There are several adverse weather conditions that may have an impact on the project's schedule. The most common adverse weather conditions that may be encountered during the project, the potential impact to the schedule, their effects to the work, and the measures to be implemented to address such conditions are described below.

4.1 Rain

Light to moderate rain events do not pose a threat to the work or the schedule. Significant rain events, both local and upstream from the project, may result in flooding. If flooding occurs, operations in the flood zone will be suspended with land based equipment being moved out of the flood zone until the water levels recede to below flood stage or work area level.

Schedule impacts may be limited to a day or two or over a week depending on the storm cycle. Flash flooding usually recedes fairly quickly but rain events that last several days (i.e., long band of storm cells or a Nor'easter) up to a week. Severson will send crews home early or temporarily depending on the site conditions affected by the storm event. The PLW Site Representative will be notified of any decisions related to storm event(s).

4.2 Snow

Currently, no major water work is anticipated to be performed during the winter months at the site. Light to moderate snow events do not pose a threat to the schedule. However, in the event of a major snow storm or a state of emergency has been declared, work may be suspended until safe conditions exist. In the event of a state of emergency, only necessary personnel will be called into the site to ensure the integrity of the site has not been compromised and, if possible, perform snow removal in the support areas, access/haul roads, and other areas selected by the Site Superintendent.

4.3 Hot Weather

Heat stress is a very serious issue for workers wearing various levels of personal protective equipment (PPE) during the summer months. Severson will implement a Heat Stress Monitoring Program to protect workers from heat related illnesses. A work rest regiment may be instituted during extreme bouts of heat. The SSO will work with the Site Superintendent to ensure sufficient workers are available to ensure the work is not impacted for heat related illnesses. Workers will be trained on identifying heat related illnesses and preventive measures. The HASP developed for the project (Appendix C to the CMI WP) also summarizes specific information on heat stress monitoring.

4.4 Cold Weather

Cold weather can complicate working conditions when water is present at the site. Workers will be educated on the hazards and controls associated with working on or around water during cold weather. Workers will be provided with hardhat liners and insulated work gloves if they are exposed to cold weather work. The HASP developed for the project (Appendix C to the CMI WP) also summarizes specific information on cold stress monitoring.

Systems and equipment will be protected against freezing by either draining the system, winterizing, or heat tracing. Heat tracing will only be conducted for systems that cannot be drained or winterized.

4.5 Strong Winds

Strong winds may have a significant impact to the schedule during sheetpile operations. Sheetpile will not be installed or removed if winds exceed the manufacturer's recommendations for the equipment being utilized for the work.

Stabilization with Portland cement will be suspended if winds are sustained at 25 miles per hour (mph) for 15 minutes or wind gusts at 35 mph occur at any time.

It is not anticipated that strong winds will have a significant impact on the schedule based on the number of stabilization days and sheetpile operation days.

5.0 Hazardous Weather Contingencies Including Flood Control Contingencies

Operations will not be conducted when the following hazardous weather conditions are present:

- Lightning
- Heavy Rains/Snow
- High Winds
- Tornado Warnings
- Flooding
- Significant severe weather warning has been issued for the immediate area by the National Weather Service

The following procedures will be implemented in the event of hazardous weather conditions:

- Excavation/solidified sediment stockpiles will be covered with plastic liner and secured.
- All equipment will be shut down, moved above the flood plain (equipment may have to be removed from the site if sufficient room is not available), and secured to prevent damage.
- Personnel will be moved to safe refuge (initially crew trailers). The Site Superintendent will determine when it is necessary to evacuate personnel to offsite locations and will coordinate efforts with the PLW Site Representative/Project Director and fire, police and other agencies (if required).

The Site Superintendent will be responsible for assessing hazardous weather conditions and notifying personnel of specific contingency measures.

The primary form of communication at the site will be two-way radios and cell phone communications. Cell phones will be used in the event the two-way radio message isn't acknowledged by the crew lead or foreman. It will be the crew lead or foreman's responsibility to notify their work crew members of the severe weather notification.

High flows could potentially impact the activities in the lake. In the event that high flows will create a potential health and safety hazard to any site personnel or equipment, the following procedures will be followed:

- The Site Superintendent will be notified of the high flows or flooding conditions.
- The Site Superintendent will direct personnel as to the specific actions required to prevent any risk to site personnel and equipment.

Such actions may include:

- Ceasing dredging / ecological-layer activities.
- Anchoring all marine equipment.
- Removing any materials and equipment that would potentially be in a flood zone to higher ground.

- Physically removing marine equipment from the lake and/or flood zones.

The Site Superintendent will notify the PLW Site Representative prior to any final decisions being made with regard to high flow conditions.

Turbidity curtains and all marine equipment will be closely monitored to ensure proper anchorage.

The Site Superintendent will monitor the high flows, and make the decision about when it no longer presents a risk to personnel and equipment to resume normal activities.

In the event that high flows occur and personnel are removed from the work zone, several measures will be taken upon returning to the work zone. All turbidity curtains, marine equipment, and dredging pipeline left in the lake will be inspected to ensure that all are safe, intact, and in an operable condition prior to resuming normal work activities.

6.0 Marine Contingency Measures

6.1 Potential Releases during Fueling Operations

Equipment and boats will be refueled from the pier. It will be necessary to fuel support equipment on the water during the day, and a fuel transfer boat will be used to refuel the dredge, capping barge, debris barge, and excavator. Fuel will be transferred in either spill proof Type II safety cans or by bulk container with an electric pump and auto “fill right” nozzle that will automatically shut off the flow of fuel when the tank is full.

The fuel transfer boat will be equipped with a fuel spill kit that is adequate for water spills. In the event of a spill, the workers performing the task will notify the Site Superintendent immediately. Once notified, the Site Superintendent will perform or instruct workers to perform the following:

- Notify the PLW Site Representative as soon as possible but no more than one hour from the event. The PLW Site Representative and Project Director will ensure that New Jersey Department of Environmental Protection (NJDEP) Guidelines for management and reporting are followed.
- Notify a spill response contractor, if necessary.
- Stop the source of the spill immediately if safe to do so.
- Shut down all equipment and ignition sources in the area.
- Deploy boom and absorbent to contain the spill.
- Collect and place spilled materials, absorbent materials, and PPE into properly labeled drums.
- Decontaminate the affected area, equipment and surfaces that have contacted the spilled material.

The fuel nozzle will be manned at all times while transferring fuel on the water. The nozzle will not be permitted to be placed in the locked position at any time. The handle on the nozzle will not be permitted to be tied, taped, wired, or strapped in the open position at any time. The person operating the nozzle must use their hand to hold open the nozzle during fuel transfers.

6.2 Potential Releases during Dredge Operations

The potential exists for the release of hydraulic oil or motor oil from construction equipment to the surrounding environment. An oil absorbent boom will be placed on the dredge and support boat to contain any floating petroleum products which may be released during dredging. An additional work boat with oil absorbent pads and skimming equipment will be available to service the oil boom and will be employed in the event of any oil spills from malfunctioning equipment.

Upon discovery of an oil spill around any equipment, or upon identification of any significant amount of floating oil on the water, the following procedures will be instituted:

- The operator must immediately notify the Site Superintendent who will in turn notify the PLW Site Representative (who will immediately notify the Project Director), followed by the SSO. If the spill has been caused by a ruptured hydraulic line or fuel line of the

equipment, the operator will take immediate steps to prevent further spillage (i.e., stop engine, disengage hydraulic pump, etc.).

- If the source of the spill is not immediately evident, the operator must stop all removal operations until the source can be determined. The Site Superintendent will direct the Severson response personnel to determine the cause of the spill and begin preparations for cleanup.
- The Site Superintendent will direct response personnel in cleaning up the spill. The Site Superintendent will make available all necessary resources to contain the spill within the oil boom and to remove oil from the water through the use of oil absorbent pads and the skimming equipment on the work boat. All oil and oil-soaked pads will be carried to shore and drummed and/or contained for disposal.
- If the spill escapes from the containment area, the Site Superintendent will again notify the PLW Site Representative, followed by the SSO, and Severson Project Manager. The PLW Site Representative will immediately contact the Project Director and other required management staff and contractors (if required). The Site Superintendent and cleanup workers will take steps to contain and remove the spilled material.

The PLW Site Representative and Project Director will determine and be responsible for sampling event(s) to determine any environmental effects.

6.3 Potential Releases from Hydraulic Dredge Pipeline

Dredged sludge will be pumped to the agitated shaker tank via floating pipeline between the dredge and the shoreline, and fixed pipeline from the shore to the processing pad adjacent to the support area. The dredge operator and the shaker tank attendant will continually monitor the dredge slurry pumping operation. Any changes in conditions will be communicated via two-way radio or cellular phone.

6.3.1 Floating Pipeline

In the event of a leak or break in the floating pipeline:

- The dredge operator will observe a noticeable drop in the dredge discharge pipeline pressure and will immediately shut down the dredge pump and notify the booster pump operator to close the valve at the booster pump discharge connection to prevent slurry in the shore based pipeline from flowing back into the lake. The dredge operator will also notify the Site Superintendent and the SSO of the break. The Site Superintendent will notify the PLW Site Representative.
- The Site Superintendent will direct the repair of the floating pipeline.
- The line will be tested for water tightness by pumping water through it with the dredge prior to resuming the dredging of sediments.
- Releases occurring over areas not previously dredged will be addressed when dredging occurs. Releases occurring over previously dredged areas will be evaluated and the accumulated sediment material will be removed.

Note: When possible, the floating pipeline will be contained inside a turbidity curtailed area that has to be dredged. The pipeline will only be permitted in areas that have been dredged, when it is physically impossible to do otherwise.

6.3.2 On Land Pipeline

In the event of a leak or break in the fixed pipeline from the shore to the processing pad:

- The dredge operator will immediately shut down the dredge pump and notify the booster pump operator to close the valve at the booster pump discharge connection to prevent slurry in the shore based pipeline from flowing back into the lake. The dredge operator will also notify the Site Superintendent and the SSO of the break. The Site Superintendent will notify the PLW Site Representative. The released sediment material will be collected and solidified for offsite disposal.

6.4 Potential Releases During Mechanical Dredge Scow Transport

Mechanically dredged sediments will be placed into open-top scows and transported with a push boat to an unloading area. The potential exists for sediment or free water to spill out of the scow during transport. Severson will direct the push boat operators to use constant speeds avoiding any abrupt acceleration and deceleration that could potentially surge the sediment and water in the scows. Bumpers will be installed at the unloading area dock to buffer any inadvertent bumps by the scow. Spill plates will be positioned between the scow and unloading area to catch material that falls from the unloading equipment bucket along its swing path. Finally, the dredge operator will be instructed to leave enough space (volume) in the top of the scow before transport to accommodate small wave occurrences. The material scow will be closely monitored at all time for potential leaks and the push boat operator will be instructed to be vigilant for any material spills. In the event of a leak or spill from the material scow:

- The push boat operator will notify the Site Superintendent and the SSO Safety Officer of the spill or leak. The Site Superintendent will notify the PLW Site Representative.
- The Site Superintendent will direct repairs to the material scow.
- The material scow will be tested for water tightness prior to resuming its use in transporting sediments.
- Releases occurring over areas not previously dredged will be addressed when dredging occurs. Releases occurring over previously dredged areas will be evaluated and the accumulated sediment material will be removed.

7.0 Sediment Processing/Wastewater Treatment Spill Responses

Both the solidification system and the water treatment system include numerous tanks, pumps, mixers, and piping networks. The pumps have the potential to break or malfunction causing the tanks to overflow, and the piping has the potential to rupture. Both systems will be set up on a bermed containment pad. Should an overflow or rupture occur, spilled material can easily be collected within the contained pad area and re-introduced to the system. Solid material will be collected using front end loaders, shovels, and booms, while liquids will drain to the sumps and will be pumped back to the agitated shaker tank or to a filtrate tank in the water treatment system. If a malfunction occurs at the sediment processing/wastewater treatment pad, the dredge operators will be immediately notified via two-way radios and dredging/dredge slurry pumping operations will be adjusted accordingly.

7.1 Tank Overflow

If an overflow of a tank occurs:

- Severson will close the inlet valve to the tank until the level of slurry/water in the tank is lowered.
- The Site Superintendent and other tank operators will be notified to allow the flow within other parts of the system to be decreased accordingly to prevent other overflows.
- Modifications to the operation of the overflowed tank will be made to avoid future overflow. If overflow was caused by pump failure or a blocked pipeline, Severson will repair/replace the pump or the blocked segment of piping.
- The PLW Site Representative will be notified and spills will be addressed as described in Section 2.3.2.

7.2 Pipeline Rupture

If a pipeline rupture occurs:

- Severson will shut down associated pumps and will close the valves on either side of the rupture to prevent back flow of material to the ruptured section.
- The Site Superintendent and other tank operators will be notified to allow the flow within other parts of the system to be decreased accordingly to prevent other overflows.
- The pipeline will be repaired prior to being put back into service.

The PLW Site Representative will be notified and sump contents will be pumped back to the agitated shaker tank or to the water treatment system.

7.3 Mechanical Failures

Mechanical failures can affect numerous items such as transfer pumps, feed pumps, compressors, conveyors, and filter press assemblies. In the event of a mechanical failure:

- The Site Superintendent or the operator will determine the nature of the problem.

- If the problem requires that the dredge, the booster pump or a solidification process train or water treatment process train be shut down to prevent an overflow or spill situation, the appropriate operators will be notified immediately.
- The cause of the problem will then be determined and corrective measures taken as described in previous sections.
- The PLW Site Representative will be notified and spills will be addressed as described in Section 2.3.2.

8.0 Damage to Overhead and Underground Utilities

All heavy equipment and vehicles are supposed to maintain at least 10 feet of clearance from energized overhead power lines. However, in the event that equipment is energized accidentally by power lines or overhead utilities are struck and dropped onto equipment or vehicles, the operator or driver is to remain in the vehicle until it is determined safe for the employee to exit the vehicle as determined by the utility company. A perimeter shall be established around the down utility line to keep unnecessary personnel out of the area until the utility company arrives to clear the area of the hazard. Lines that are struck and not fallen are to be reported to the Site Superintendent immediately. The Site Superintendent will notify the appropriate utility and the PLW Site Representative who in turn will immediately notify the Project Director.

If an underground utility is damaged, workers will contact the Site Superintendent immediately. In the event of spraying water or sewage, the area shall be evacuated and a perimeter established to prevent unnecessary personnel from entering. The Site Superintendent will notify the PLW Site Representative who in turn will immediately notify the Project Director. The Pompton Lakes Municipal Utilities Authority will be notified by either the PLW Site Representative or Project Director.

9.0 Emergency Vehicle Access and Egress Routes

During the project there will be three different access road set ups to support three phases of site work. The three phases are sheetpile and/or turbidity containment system installation, Uplands soil excavation, and dredging/solidification activities.

There are two gates that provide access to the site along Lakeside Avenue. The western most gate will be used as the primary access point for emergency vehicles during all phases of the project. The access roads change from phase to phase. Figures 2, 3, and 4 provide an overview of access road locations and patterns. These figures will be posted in the office trailer and will be updated as necessary to reflect actual site conditions.

Access roads will be maintained in good condition to allow vehicle access to support site operations and emergency response.

Figure 2 – Dredging/Solidification Phase Access Roads

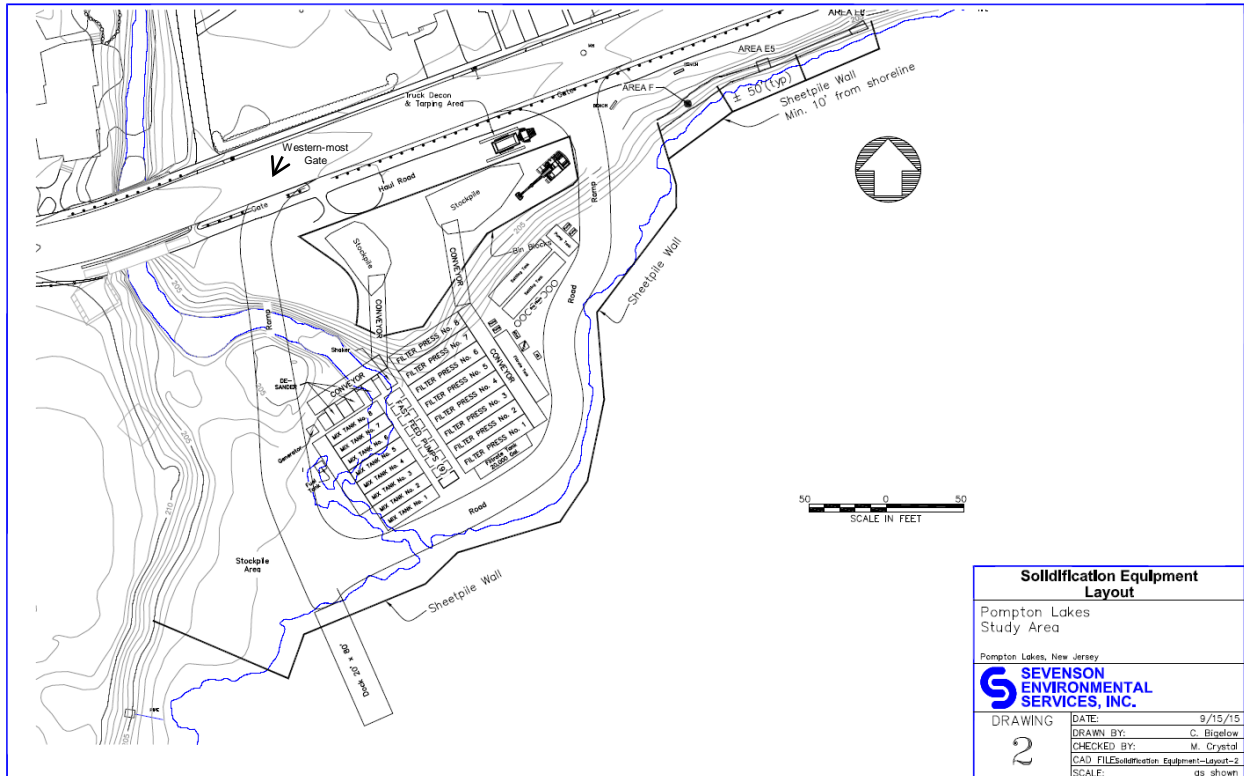


Figure 3 – Sheetpile Installation Phase Access Roads

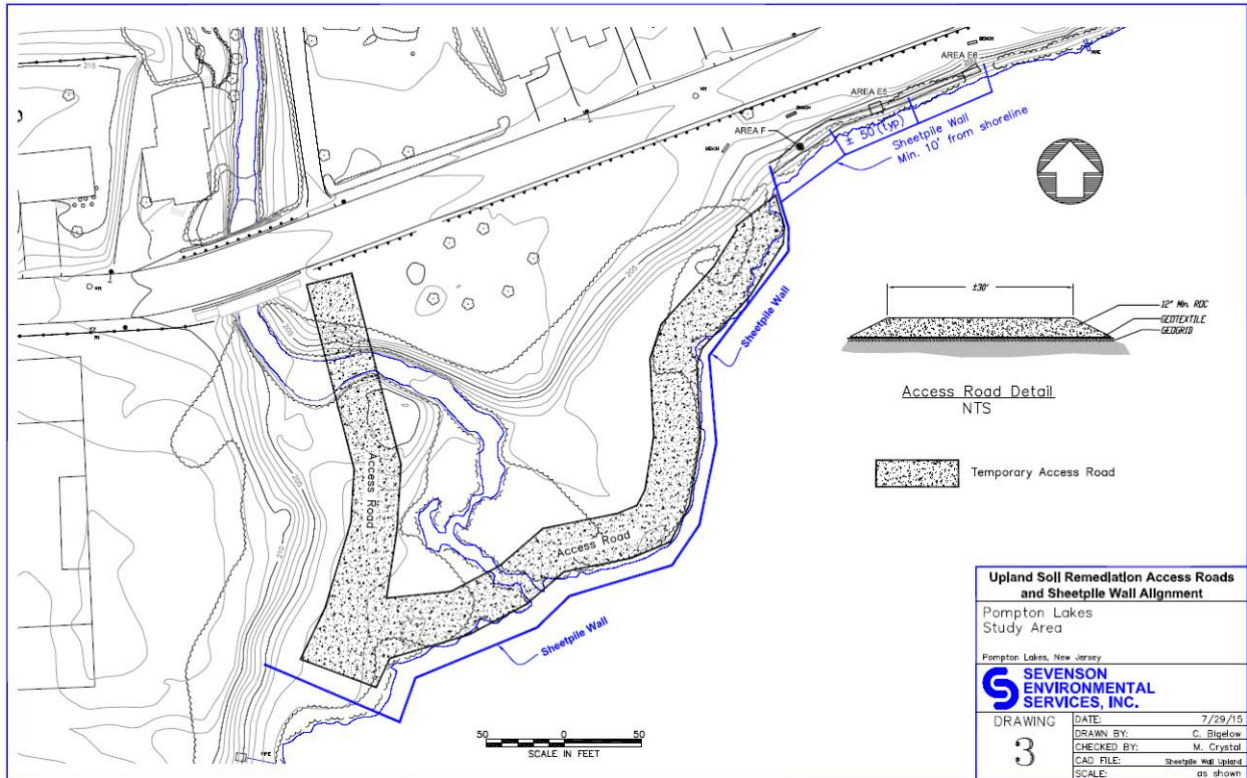
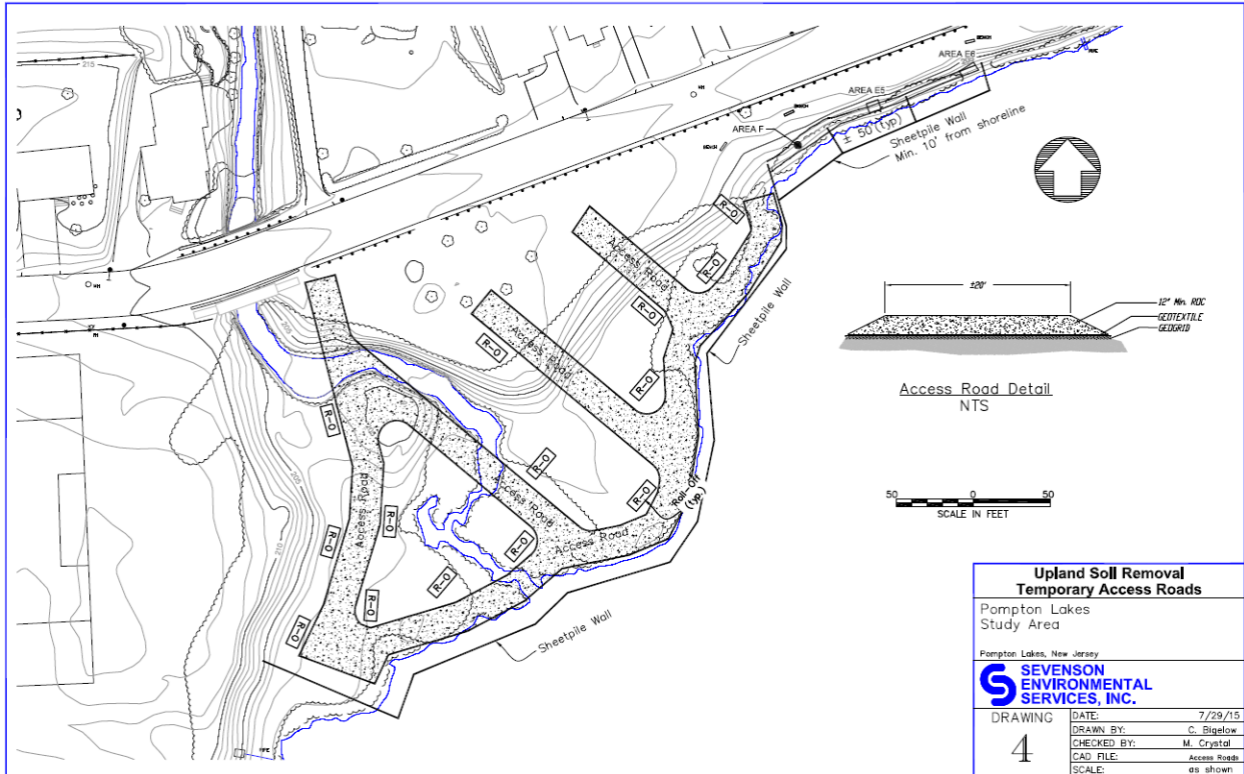


Figure 4 – Upland Excavation and Shallow Water Delta Dredge Phase Access Roads



10.0 Offsite Disposal Truck Material Spills

In the event a truck hauling waste material to the landfill is involved in an accident or spills material, the trucking company will be responsible for the event. As part of their contract, the trucking company will be required to immediately report an accident to Severson. In turn, Severson will immediately report an accident to the PLW Site Representative/Project Director. The Project Director will then notify EPA no later than 24 hours after notification from Severson. The trucking company will be responsible for notifying any agency of the release as required by law.

A copy of the trucking company's emergency response plan will be maintained at the site as a reference.

11.0 Evacuation Procedures

All emergencies require prompt and deliberate action. In the event of an emergency, it will be necessary to follow an established set of procedures. Such established procedures will be followed as closely as possible. However, in specific emergency situations, the Site Superintendent may deviate from the procedures to provide a more effective plan for bringing the situation under control. The Site Superintendent and SSO are responsible for determining which situations require site evacuation. The site-specific procedures will be reviewed with the Pompton Lakes police and fire departments and their respective emergency management entities. A specific meeting with Lakeside Middle school representatives will also be conducted to establish a primary point of contact for notification in the event of an emergency requiring site evacuation.

11.1 Safe Distances and Places of Refuge

Safe distances can only be determined at the time of an emergency based on a combination of site and incident-specific criteria. However, the measures provided in the sub-sections below are established to serve as general guidelines. The decision will be the responsibility of the Site Superintendent and SSO.

11.2 Evacuation Procedures

Evacuation procedures will be reviewed with all onsite personnel prior to starting work and periodically during the project. In the event onsite evacuation of remedial action personnel is necessary, the following actions will be taken:

- The emergency signal will be activated (one single long blast on the air horn).
- No further entry of visitors, contractors, or trucks will be permitted. Vehicle traffic within the site will cease in order to allow safe exit of personnel and movement of emergency equipment.
- Shut off all machinery if safe to do so.
- All onsite personnel, visitors, and contractors in the support zone will assemble at the entrance to the site for a head count and await further instruction from the Site Superintendent.
- All persons in the exclusion zone and contamination reduction zone will be accounted for by their immediate crew leaders (e.g., foremen). Crew leaders will determine the safest exits for employees and will also choose an alternate exit if the first choice is inaccessible.
- During exit, the crew leader will try to keep the group together. Immediately upon exit, the crew leader will account for all employees in his crew.
- Upon completion of the head count, the crew leader will provide the information to the Site Superintendent.
- The names of emergency response team members involved will be reported to the Site Superintendent.

- A final tally of persons will be made by the Site Superintendent or designee. No attempt to find persons not accounted for will involve endangering lives of Severson or other employees by re-entry into emergency areas.
- In all questions of accountability, immediate crew leaders will be held responsible for those persons reporting to them. Visitors will be the responsibility of those employees they are seeing. Contractors and truck drivers are the responsibility of the Site Superintendent. The SSO will aid in accounting for workers, visitors, contractors, and truckers by reference to sign-in sheets. All personnel will be responsible for signing themselves in and out while at the site.
- All site personnel accountability will be reported to the PLW Site Representative.
- Personnel will be assigned by the Site Superintendent to be available to direct and brief emergency responders.
- Re-entry into the site will be made only after clearance is given by the Site Superintendent and approval by the PLW Site Representative. Upon such direction, a signal or other notification will be given for re-entry into the site.

11.3 Evacuation Signals and Routes

Two-way radio communication and an air horn will be used to notify employees of the necessity to evacuate an area involved in a release/spill of a hazardous material. Each crew supervisor will have a two-way radio. A base station will be installed in the Severson office trailer to monitor for emergencies. Total site evacuation will be initiated only by the Site Superintendent. Evacuation routes will be posted in each work area. Periodic drills will be conducted to familiarize each employee with the proper routes and procedures.

12.0 Emergency Numbers and Route to the Hospital

The procedures listed below will be used to respond to medical emergencies.

The nearest workers will immediately assist a person who shows signs of medical distress or who is involved in an accident and contact the SSO. The work crew supervisor will be summoned. The SSO will have had training with regards to blood-borne pathogens and first aid.

The work crew supervisor will immediately make radio contact with the Site Superintendent to alert him of a medical emergency situation. The supervisor will provide the following information:

- Location of the victim at the work site
- Nature of the emergency
- Whether the victim is conscious
- Specific conditions contributing to the emergency, if known

The Site Superintendent will take the following actions depending on the severity of the incident:

- Notify PLW Site Representative of the emergency.
- Life-Threatening Incident - If an apparent life-threatening condition exists, the crew supervisor will inform the Site Superintendent by radio who will request the immediate response of the local Emergency Medical Services (EMS) via 911. An onsite person will be appointed who will meet the EMS and have him/her quickly taken to the victim(s).
- Non-Life-Threatening Incident - If it is determined that no threat to life is present, the Site Superintendent will direct the injured person with assistance through decontamination procedures (see below) appropriate to the nature of the illness or accident. The SSO will then be notified and appropriate first aid will be administered by the SSO, WorkCare Incident Intervention (888-449-7787), or the injured person will be taken for medical attention.

NOTE: The area surrounding an accident site must not be disturbed until the scene has been cleared by the SSO.

Any personnel requiring emergency medical attention will be evacuated from exclusion and contamination reduction zones if doing so would not endanger the life of the injured person or otherwise aggravate the injury. Personnel will not enter the area to attempt a rescue if their own lives would be threatened. The decision whether or not to decontaminate a victim prior to evacuation is based on the type and severity of the illness or injury and the nature of the contaminant. For some emergency victims, immediate decontamination may not be an essential part of life-saving first aid. For others, decontamination may be an essential part of life-saving first aid. Decontamination will be performed if it does not interfere with essential treatment.

If decontamination can be performed, observe the following procedures:

- Wash external clothing and cut it away.

If decontamination cannot be performed, observe the following procedures:

- Wrap the victim in blankets or plastic to reduce contamination of other personnel.
- Alert emergency and offsite medical personnel to the potential contamination, and instruct them about specific decontamination procedures.
- Send site personnel familiar with the incident and chemical safety information (e.g., SDS) with the affected person.

All injuries, no matter how small, will be reported to the SSO, Site Superintendent, and PLW Site Representative. An accident/injury/illness report will be completely and properly filled out and submitted to Severson's Corporate Health and Safety Officer and the PLW Site Representative who will in turn relay information to the Project Director.

A list of emergency telephone numbers is given in Table 1, and Figure 5 provides a map and directions to the hospital.

Table 1 – Emergency Telephone Numbers

Emergency Contact	Contact Name	Emergency No.	Alternate No.
National Response			
National Response Center	N/A	800-424-8802	N/A
New Jersey Spill Notification			
NJDEP Spill Hotline	Automated	877-WARNDEP	877-927-6337
PLW Points of Contact			
PLW Site Representative	Ed Seger	(973) 670-3877	(973) 670-3877
Project Director	David Epps	(973) 492-7733	(704) 853-9922
Sevenson			
Site Safety Officer	To be determined	To be determined	None
Site Superintendent	To be determined	To be determined	None
	To be determined	To be determined	None
Project Manager	To be determined	To be determined	None
Program Manager	Mike Crystal	716-284-0431	716-998-8410
Director of Health and Safety	Paul Jung, CIH	716-284-0431	716-609-1767
External Emergency Response			
For Emergencies – Police, Fire, Medical	N/A	911	None
Pompton Lakes Volunteer Fire Department	Ron Fusaro – Chief	973-835-0072	None
Pompton Lakes Police Department	Moises Agosto – Chief	973-835-0400 x246	None
Pompton Lakes Office of Emergency Management	Albert Evangelista – Coordinator	973-835-4906	None
Pompton Lakes Public Works	Tim Duffy – Supervisor or Ben Steltzer – Superintendent	973-835-1465	None
Pompton Lakes Environmental Protection	Ed Merrill	973-835-0143 x227	None
Passaic County Sheriff’s Office	Non-Emergency	973-389-5919	None
Poison Control Center	N/A	800-222-1222	None
Chilton Memorial Hospital	General	973-831-5000	None

13.0 Responsible Persons

The Site Superintendent has the overall responsibility at the site to receive incoming phone calls and to dispatch personnel and equipment in the event of an emergency. This responsibility may be transferred to the SSO in the event the Site Superintendent is unavailable. At a minimum the Site Superintendent or SSO will be present at the Site while work is being performed.

Any worker at the site has Stop Work Authority if they feel an unsafe condition exists. The SSO and Site Superintendent will evaluate the unsafe condition and either explain why the condition is safe or abate the issue prior to work resuming.

Appendix A

Chemours Unexpected Occurrence Reporting Requirements

Procedure - *Unexpected Occurrence Reporting*

PURPOSE

To ensure that unexpected occurrences are investigated and communicated as a means of preventing similar occurrences, promoting safety awareness, sharing of learnings, and collecting data for trend analysis.

KEY TERMS

The following definitions apply to terms used in this Procedure:

Unexpected Occurrence (UO's): Any unplanned event or action that has the potential to cause one or more of the following:

- Injury or illness to an employee, contractor, or a member of the public.
- An environmental release.
- An environmental deviation.
- Property damage, to include any damage to company/rental equipment or vehicles.
- A business/project work interruption.
- Security - such as trespass, vandalism, breaking and entering, and theft.
- Multiple instances not reported as UO, but indicative of a pattern such as multiple respirator cartridge breakthroughs.

Environmental Deviations: Any deviation from an environmental regulatory requirement, or the terms or conditions of a permit, that was reported to or was found by a regulator.

- To include emissions, leaks, spills, monitoring, record keeping, reporting, testing, sampling, etc. and any situations where a regulatory requirement has not been met that must be reported (RCRA, TRI, Wastewater, TSCA, etc.).

This includes federal, state and municipal government requirements

Occupational Injury - a physical condition that results from an incident or a single, brief exposure in the workplace (e.g., burn, laceration, or fracture).

Occupational Illness - a health condition caused by, precipitated by, contributed to, or aggravated by exposure to workplace hazards over a period of time.

RESPONSIBILITIES

Each CRG employee, including CRG contractors, is responsible for reporting any UO in which they are involved to the appropriate Chemours contact.

If a field UO occurs, the Chemours Site Representative (CSR) must contact the Project Director (PD), the Project Manager (PM) and the respective the Site Safety Manager as soon as practical.

The PD must make verbal contact with the CRG Health and Safety (H&S) resources, the

Remediation Team Manager (RTM), and the affected employee's RTM as soon as feasible subsequent to the occurrence.

- If the UO is a security incident, the PD or PM must consult with the CRG Security Focus Leader to determine the next steps. The CRG Security Focus Leader is available to assist the project team. A Security Leader assigned by the Corporate Security group will participate in the investigation and enter the incident into the Corporate Incident Tracking System.

For office occurrences, the employee must contact his/her PM as soon as feasible subsequent to the occurrence and contact the Site Safety Manager.

CRG H&S, along with the project team, or RTM will decide if company-wide reporting is needed using the UO definition above.

The PD or the RTM (as appropriate) or designee is responsible for completing and sending a preliminary communication, using the CRG H&S Database template, to the organization within eight hours after discussion with CRG H&S.

The RTM will notify the CRG Director who will then determine if communications to Line Management is needed.

The PD or PM (as appropriate) is responsible for setting up the UO investigation within the next working day and preparing the draft report, with sufficient lead time that it may be reviewed, edited by Site Safety Manager and issued within 7 working days of the occurrence. Note: See Figure 1 for an example of the UO report format.

CRG H&S is responsible for consistent classification of UO's, assisting in the investigation, reviewing reports for content and issuing final reports. Additionally CRG H&S has the responsibility for reporting to the necessary Chemours SHE contacts.

Note: If a fatality occurs or three or more employees are hospitalized, CRG H&S must report to the regional Occupational Safety and Health Administration (OSHA) office within eight hours of the injuries. In addition, reporting to Chemours must be consistent with the US & Canada Injury, Illness and Incident Reporting Requirements.

APPLICATION

This Procedure will be followed for all on-the-job UO's. Off-the-job injuries to CRG employees will be reported if lost time results or if the incident can promote safety awareness or communicate key learnings. Note: Contractors are not required to report off-the-job incidents.

PROCEDURE METHODOLOGY

For further direction on Unexpected Occurrence Reporting please refer to CRG SHE procedure SHE.O.11- UO Reporting.

REFERENCES

- CRG SHE procedure SHE.O.11 - Unexpected Occurrence Reporting (11/19/2014)
- DuPont Safety Standard S35G "Managing Occupational Injuries and Illnesses"

FIGURE 1

CRG UNEXPECTED OCCURRENCE REPORT		
REPORT NO.:	UO-	YY- No.
TITLE:		
LOCATION:		
DATE & TIME:		
DESCRIPTION: (The description should be a concise statement in one to three sentences of what happened.)		
KEY LEARNINGS:		
SUMMARY OF INVESTIGATION: (Include bullet items of the incident findings.)		
KEY FACTORS: (List the underlying cause of the UO.)		
RECOMMENDATIONS/RESPONSIBILITY: (What should be done to prevent a recurrence or other relevant path forward items, with assignment to an individual or the team and the completion date? Be specific and concise.)		
UO INVESTIGATION TEAM: (List names of participants.)		