SITE SPECIFIC HEALTH AND SAFETY PLAN

HASP

FOR THE NEW BEDFORD HARBOR DREDGE PROJECT – PHASE III

New Bedford, Massachusetts
August, 2006

Prepared for the:
New Bedford Harbor Development Commission (HDC)
New Bedford, Massachusetts

Prepared by:
Apex Companies, LLC
Boston, Massachusetts

SITE SPECIFIC HEALTH AND SAFETY PLAN FOR:

SITE SURVEYS AND SAMPLING ACTIVITIES: 2006
NEW BEDFORD HARBOR DREDGE – PHASE III
New Bedford, Massachusetts

October 4, 2006

PREPARED FOR:

The New Bedford Harbor Development Commission
New Bedford, Massachusetts

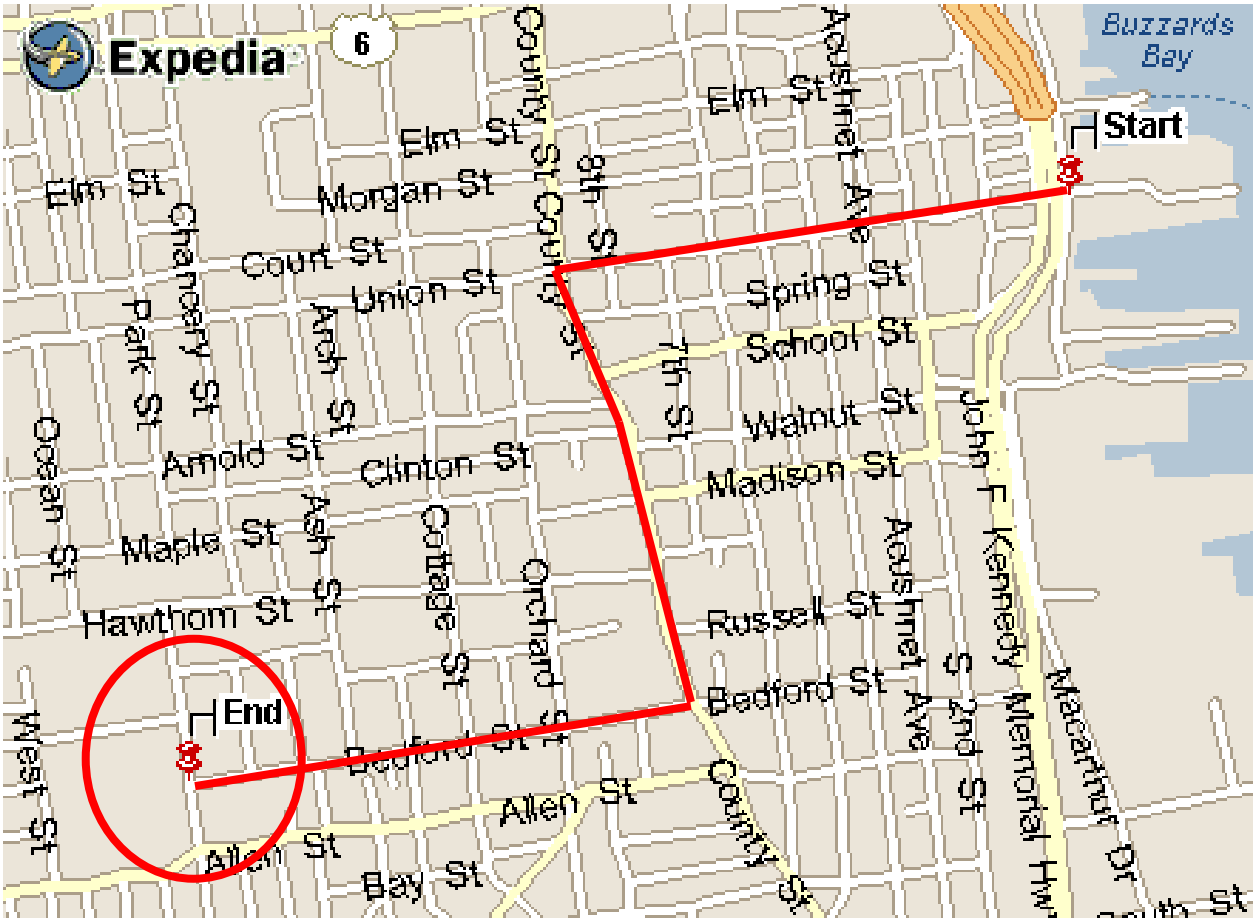
PREPARED BY: C. Myers
TITLE: Project Manager

REVIEWED BY: Steve Young
TITLE: Corporate Health and Safety Director

APEX PROJECT NO.: 6588, 6589, and 6591

The information contained in this HASP is provided for the protection of the health and safety of Apex Companies, LLC personnel and subcontractors working under the direct supervision and control of Apex Companies, LLC on projects involving hazardous waste operations. The information included in this document is designed to identify, evaluate and control safety and health hazards, and provide for emergency response for site activities. This HASP will remain on the project site for reference by workers during each phase of the project. Apex Companies, LLC assumes no liability for, or responsibility to, any other parties for the accuracy or completeness of information included in the HASP or reliance upon this HASP by any other party.

APPENDIX A
DIRECTIONS TO ST. LUKE'S HOSPITAL FROM STATE PIER



Directions	Distance	Time
Start: Depart Co-Op Wharf	0.1	0:01
1: Turn **LEFT (South) onto Macarthur Drive**	< 0.1	0:01
2: Turn RIGHT (West) onto Union St	0.2	0:01
3: Cross John F. Kennedy Memorial Hwy.	0.5	0:02
4: Turn **LEFT** (South) onto **County St**	0.4	0:02
5: Turn **RIGHT** (West) onto **Bedford St**	0.5	0:02
End: Arrive 101 Page St, New Bedford, MA, 02740	< 0.1	< 1min
Total Route	**1.8 mi**	**8 mins**

Health and Safety Plan Acknowledgement

This form is to be signed by each Apex employee and contractor/subcontractor who will be present during this project. This Health and Safety Plan Acknowledgement must be signed prior to the person commencing work at the project site.

By signing this form, personnel acknowledge that they have read and understand the contents of this Site Specific Health and Safety Plan (SSHASP) and the hazards associated with the project, the control measures and procedures to follow to protect site personnel, property and the community during the course of this project.

Personnel also understand that on a daily basis, mandatory safety meetings will be held prior to starting the day's activities and attended by all on-site project personnel. Project personnel also acknowledge that they agree to perform all activities in a safe manner in accordance with the SSHASP. The purpose of the daily tailgate safety meetings is to discuss potential hazards, control measures and other pertinent information needed for communicating potential project hazards of daily activities at the site.

NAME	**SIGNATURE**	**DATE**

TABLE OF CONTENTS

APPENDICES

1.0 INTRODUCTION

This site Health and Safety Plan (HASP) was prepared by Apex Companies, LLC (Apex). Its purpose is to define requirements and designate protocols to be followed during the oversight of site survey operations and during marine sampling and data collection for the project.

Applicability of this Health and Safety Plan extends to all contractors, subcontractors, and visitors present at the work site.

This HASP summarizes potential hazards associated with the known contaminants and planned activities, and defines protective measures to mitigate these hazards. It also provides for emergency response actions.

Prior to entering the site, all personnel must review this HASP and sign the Site HASP Acknowledgment Form documenting agreement to comply with its requirements. The agreement form will be kept on site with the Site Safety Officer for inspection. All personnel on site, contractors and subcontractors included, shall be informed of the site emergency response procedures and any potential fire, explosion, health, or safety hazards of the operation.

Apex prepared this HASP to summarize industrial hygiene and health and safety monitoring related to working around and handling of potentially contaminated sediments and water during the above mentioned field activities.

The requirements set forth in this HASP are based on standard safety and health precautions applicable to typical dredging and other over-water activities. This HASP shall be properly implemented by a qualified and experienced Site Safety and Health Officer (SSHO) provided by Apex. The SSHO, in coordination with the Corporate Health & Safety Director and Project Manager, will identify when additional requirements are necessary and ensure that this plan is supplemented and expanded as needs dictate. Responsibilities of Apex and its employees will be limited to those specifically defined with the client via contract.

In general, Apex will monitor job site conditions and exposures to the extent described and will provide oversight and enforcement of this HASP; however, Apex does not assume responsibility for non-contracted duties relative to the client's or subcontractor's safety and health programs. This HASP addresses potential hazards and unsafe work practices associated with Site Survey and/or Marine Sampling/Data Collection, but is not intended to be all-inclusive. Although this HASP does not address all matters relating to general sampling protocol, all applicable regulations apply and are the sole responsibility of each contractor working on site. Applicability of this HASP extends to all employees, contractors, subcontractors, and visitors.

2.0 SITE HISTORY AND DESCRIPTION

The New Bedford Harbor Development Commission (HDC) proposes to dredge sediment from multiple locations in New Bedford Harbor within the City of New Bedford and the Town of Fairhaven. The project consists of dredging the AGM Marine Contractor’s facility in New Bedford, The Steamship Authority facility in Fairhaven, Union Wharf in Fairhaven, The Acushnet River Boast Club (Coast Guard Auxiliary) pier in Fairhaven, portions of the D.N. Kelley and Sons, Inc. docks and piers in Fairhaven, two Warren Alexander properties in Fairhaven, the Sal Ingrande area in Fairhaven, and an area adjacent to and north of Linberg Marine, Inc.. To prepare design documents for the dredging, the following tasks have been authorized: site

surveys and background data collection and geotechnical and environmental sampling and analysis.

The New Bedford/Fairhaven Harbor, is located on the west side of Buzzards Bay, at the mouth of the Acushnet River between the City of New Bedford, Massachusetts and the Town of Fairhaven, Massachusetts. The Harbor includes all the tidewater lying northerly of a line from Clarks Point at the southern extremity of New Bedford to Wilbur Point at the southern end of Fairhaven, and extends to the head of navigation on the Acushnet River at Acushnet. The outer harbor consists of the area south of the hurricane barrier at Palmer Island, and the inner harbor consists of the area north of the barrier to a short distance above the New Bedford/Fairhaven Bridge (USACE 1996). The site of the proposed dredge and disposal area for the New Bedford Harbor Dredge – Phase III is located south of the Route 6 swing bridge and on the eastern portion of the harbor. Ancillary related aspects of the project will involve other areas in New Bedford near the harbor, including State Pier in New Bedford which will be used to moor Apex Company's vessel (*see **Appendix 1**: Site Location Map*).

The City of New Bedford has historically been a manufacturing city located on the western side of the Acushnet River, with the Town of Fairhaven on the eastern side. Petroleum products, sand and gravel, and fruits were the principal commodities brought into the harbor in the mid-1990's. Numerous fishing craft operate from the port of New Bedford, which is ranked 19th nationally in quantity of fish landed (70,500,000 pounds), and first in value of fish landed (valued at $86.7 million). The federal navigation channel in New Bedford Harbor consists of a main channel extending from the deeper water in Buzzards Bay through the New Bedford Hurricane Gates to the New Bedford-Fairhaven Bridge (U.S. Route 6); a channel extending from the lower Maneuvering Area along the upper waterfront to the vicinity of Fish Island and the swing bridge; a channel west of a line channel-ward of the Fairhaven Harbor lines from Pierce and Kilburn Wharf to the old causeway pier; and an anchorage area north of Palmer Island, off the Fairhaven main waterfront (USACE, 1996).

New Bedford Harbor holds special status as a Designated Port Facility (DPF), and has a proud history of seafaring traditions that continue today with an active fishing fleet and busy commercial vessel traffic. The fishing fleet is important to the community, with more than two hundred fishing vessels operating out of the Harbor. The Harbor also houses ferry vessels, including a Steamship Authority Martha's Vineyard Ferry as well as several other island ferries.

2.1 Historical Information on Hazardous Material Usage/Disposal at the Site

Due to the industrial nature of New Bedford Harbor, industrial pollutants such as metals and organic compounds have been discharged into the harbor. The historical discharge of pollutants into New Bedford Harbor has been well documented as part of the EPA's superfund cleanup efforts. Those pollutants have a strong affinity to the sediments that have settled to the harbor bottom.

2.2 Facility Description/Known or Anticipated Hazardous Areas

There are no specific hazardous areas anticipated during this project. However, the sediment sampling completed for other projects conducted by Apex Companies, LLC within New Bedford Harbor have found elevated levels of polychlorinated biphenyls (PCBs), petroleum

hydrocarbons, and some metals. The two contaminants of greatest concern are PCBs and copper.

This health and safety plan (HASP) is being prepared for Apex personnel to use, as guidance in conducting work activities at the site is a safe manner. Known or anticipated hazardous areas or conditions for the site have been tabulated below:

- Extreme weather – especially cold conditions
- Potential for falling overboard
- Collisions with other vessels and running aground
- Contact with potentially contaminated sediments
- Proximity to heavy equipment

3.0 WORK PLAN ELEMENTS

Following is an overview of anticipated Apex on-site activities presented in the sequence in which they will be performed.

- Activity 1. Site Surveys and Background Data Collection
- Activity 2. Sampling and Analysis Program

4.0 HAZARD ANALYSIS AND CONTROL MEASURES

A variety of potential hazards are believed associated with the project scope of work. The following table can be used to identify anticipated hazards for the project based on the project scope of work and site conditions. The hazards have been checked for the project tasks. This hazard checklist has been provided as a guide for developing control measures to be implemented to protect worker health and safety.

HAZARD ANALYSIS MATRIX

	Activity 1	Activity 2
HAZARDS	**Site Surveys and Background Data Collection**	**Sampling and Analysis Program**
CHEMICAL	-	X
BIOHAZARD	-	X
COLD STRESS	X	X
WATER DROWNING	X	X
NOISE	-	-
UNDERGROUND UTILITIES	-	X
VEHICULAR TRAFFIC	X	X
SLIPS/FALLS	X	X
SUN EXPOSURE	X	X
INCLEMENT WEATHER	X	X
HEAVY MACHINERY AREA	X	X
PHYSICAL/BACK INJURY	-	X
HIGH CRIME AREA	X	X
FLAMMABLE MATERIALS	X	-

CONTROL MEASURES FOR ANTICIPATED WORK ACTIVITIES HAZARDS

TASK	HAZARD	CONTROL MEASURE
1. Site Surveys and Background Data Collection	Cold Stress	Warm clothes, water proof outer layer, regular breaks as necessary. Recognize the signs for frost bite/hypothermia.
	Water Drowning	PFDs will be worn at all times when in support boat
	Vehicular Traffic	One person will be on watch for approaching vessels
	Slips / Falls	Proper boating footwear must be worn when on board
	Sun Exposure	Suscreen will be worn on exposed parts of the body while working outside. Shaded glasses to be worn during sunny conditions.
	Inclement Weather	Field activities will cease in the event of approaching storms or high winds/seas
	Heavy Machinery Area	Be aware of machinery operations. Obey no-go-areas where machinery is operating
	Physical/Back Injury	First aid will be applied as necessary. Team lifting when weight over 50 lbs.
	High Crime Area	Lock all boats and equipment at the end of every day.
	Flammable Materials	No smoking will be allowed during work activities. All flammable substances will be stored in appropriate fire-proof containers.
2. Sampling and Analysis Program	Chemical	PPE worn when there is a potential for sediment contaimination
	Biohazard	PPE worn if there is a potential for contact with sediment or water. Wash hands prior to eating/drinking/smoking.
	Cold Stress	Warm clothes, water proof outer layer, regular breaks as necessary. Recognize the signs for frost bite/hypothermia.
	Water Drowning	PFDs will be worn at all times when in support boat
	Vehicular Traffic	One person will be on watch for approaching vessels
	Slips / Falls	Proper boating footwear must be worn when on board
	Sun Exposure	d glasses to be worn during sunny conditions.
	Inclement Weather	Field activities will cease in the event of approaching storms or high winds/seas
	Heavy Machinery Area	Be aware of machinery operations. Obey no-go-areas where machinery is operating
	Physical/Back Injury	First aid will be applied as necessary. Team lifting when weight over 50 lbs.
	High Crime Area	Lock all boats and equipment at the end of every day.

5.0 PROJECT STANDARD OPERATING PROCEDURES AND PRACTICES

All site personnel must adhere to the following standard operating procedures and practices.

1. All safety equipment and protective clothing is to be kept clean and well maintained.
2. All prescription eyeglasses in use will be safety glasses. Contact lenses should not be worn in areas where there is a potential for injury to the eye due to particulate, fume, vapors, gases or other air contaminant.
3. The Safety Officer will approve all disposable or reusable gloves worn on the site.
4. Footwear used on site will be conducive to working conditions including while working on boats.
5. All personal protective equipment (PPE) used on site will be decontaminated or disposed of at the end of the workday. The Safety Officer will be responsible for ensuring decontamination of personal protective equipment before reuse.
6. All project personnel shall have a vision or corrected vision to at least 20/40 in one eye.
7. On-site personnel found to be disregarding any provisions of the HASP or SOP will, at the request of the Safety Officer, be barred from the project.
8. Eating, drinking, chewing gum or tobacco, smoking, etc., will be prohibited while performing water quality monitoring activities.
9. All personnel will thoroughly cleanse their hands, face, forearms and other exposed areas prior to eating smoking, drinking, or using the toilet facilties.
10. No alcohol or drugs (without prescription) will be allowed on-site at any time.
11. All personnel who are on medication should report it to the Safety Officer who will make a determination whether or not the individual be allowed to work and in what capacity.
12. The Safety Officer may require a letter from the individual's personal physician stating what limitations, if any; the medication may impose on the individual.
13. At least one copy of these work practices shall be available for review at the job work site.
14. Legible and understandable, precautionary labels shall be affixed prominently to containers of contaminated scrap, waste, debris and clothing.
15. Transportation and disposal of contaminated materials shall comply with all applicable local, state, and federal regulations. The transporter and disposer will address these items.
16. Drummed contaminated materials shall be stored in tightly closed containers in well-ventilated areas.
17. Containers shall be moved only with the proper equipment and shall be secured to prevent dropping or loss of control during transport.
18. Before daily site operations begin, a tailgate safety meeting will be held to review the SSHASP concerns for the work activities and emergency response procedures. The Daily Tailgate Safety Meeting Logs will be maintained as part of the SSHASP. The Daily Tailgate Safety Meeting Form and Topics Guide are located in **Appendix B**.
19. Field personnel should not stand with their head directly over a container of hazardous material or well when it is being opened.

20. Events surrounding accidents/injuries will be recorded in the daily log. Document the incident on Apex's Incident Report and submit copies within 24 hours to the Corporate Human Resources Representative and Corporate Health and Safety Officer.
21. First aid kit(s) and fire extinguisher(s) will be available in all company vehicles and on project sites for responding to emergency situations.
22. Workers will not stand on drums.
23. Lockout-tag out procedures will be followed prior to performing any work on equipment for controlling hazardous energy.
24. Use of a "buddy system" will be used in hazardous areas.
25. Engineering controls and work practices shall be instituted to reduce and maintain employee exposure to, or below, the permissible exposure limits (PEL) for substances regulated by OSHA, except to the extent that such controls and practices are not feasible.

6.0 VIOLATIONS OF THE HASP

Apex will not tolerate violations of the SSHASP including standard operating procedures. Apex has the right to remove any individual who violates safety practices. Disciplinary measures are at the discretion of the Safety Officer and will be commensurate with the severity of the infraction. It is the responsibility of each individual to understand and comply with safety procedures and request clarification as needed. Supervisors carry additional oversight and enforcement responsibilities and, consequently, disciplinary measures will be more severe. The following guidelines apply for minor infractions for Apex employees and Apex contract employees:

First infraction: verbal warning with no further action if individual corrects infraction immediately and acknowledges the infraction.

Second infraction: written warning and possible time off site without pay to review safety procedures.

Third infraction: individual banned from the site.

For serious or imminent hazards, safety violations will result in temporary or permanent banishment from the site.

7.0 PERSONAL PROTECTIVE EQUIPMENT (PPE) AND CLOTHING

The minimum level of PPE to be worn for this project is Level D. All work activities will commence in Modified Level D PPE. It is not anticipated that PPE levels above modified Level D will be required for the duration of the project.

CATEGORIES OF PPE

LEVEL OF PPE	PERSONAL PROTECTIVE EQUIPMENT
A	Positive pressure full face-piece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved) Totally encapsulating chemical –protective suit Coveralls[1] Long underwear[1] Gloves, outer, chemical-resistant Gloves, inner, chemical-resistant Boots, chemical-resistant, steel toe and shank Hard hat (under suit)[1] Disposable protective suit, gloves and boots (depending on suit construction, may be worn over totally-encapsulating suit)
B	Positive pressure, full-face piece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved) Hooded chemical-resistant clothing (overalls and long-sleeved jacket; coveralls; one or two-piece chemical-splash suit; disposable chemical-resistant overalls) Coveralls[1] Gloves, outer, chemical-resistant Gloves, inner, chemical-resistant Boots, outer, chemical-resistant, steel toe and shank Boot-covers, outer, chemical-resistant (disposable)[1] Face shield[1] Hard hat[1]
C	Full-face or half-mask, air purifying respirators (NIOSH approved) Hooded chemical-resistant clothing (overalls; two-piece chemical-splash suit; disposable chemical-resistant overalls) Coveralls[1] Gloves, outer, chemical-resistant Gloves, inner, chemical-resistant Boots, outer, chemical-resistant steel toe and shank[1] Boot-covers, outer, chemical-resistant (disposable)[1] Hard hat[1] Escape mask[1] Face shield[1]

LEVEL OF PPE	PERSONAL PROTECTIVE EQUIPMENT
D	Coveralls
	Gloves[1]
	Boots/shoes, chemical-resistant steel toe and shank
	Boots, outer, chemical-resistant (disposable) [1]
	Safety glasses with side shields, or chemical splash goggles
	Hard hat
	Escape mask[1]
	Face shield[1]
	Traffic vest[1]
	Floatation vest/jacket
	Long Underwear[1]
	Survival Suit[1]
	Wind/Waterproof Outerwear[1]

[1] optional, as applicable

TYPES OF HAZARDS FOR WHICH LEVELS A, B, C AND D PROTECTION ARE APPROPRIATE

PPE LEVEL	WHEN TO USE
A	The hazardous substance has been identified and requires the highest level of protection for skin, eyes, and the respiratory system based on either the measured, or potential for, high concentration of atmospheric vapors, gases, or particulates of materials that are harmful to skin; The site operation and work functions involve a high potential for splash, immersion, or exposure to unexpected vapors, gases, or particulates of materials that are harmful to skin or capable of being absorbed through the skin; Substances with a high degree of hazard to the skin are known or suspected to be present, and skin contact is possible; or, Operations are being conducted in confined, poorly ventilated areas, and the absence of conditions requiring Level A have not yet been determined.
B	The type and atmospheric concentration of substances have been identified and require a high level of respiratory protection, but less skin protection; The atmosphere contains less than 19.5% oxygen; or, The presence of incompletely identified vapors or gases is indicated by a direct-reading organic vapor detection instrument, but vapors and gases are not suspected of containing high levels of chemicals harmful to skin or capable of being absorbed through the skin. Use of Level B involves atmospheres with IDLH concentrations of specific substances that present severe inhalation hazards and that do not represent a sever skin hazard, or do not meet the criteria for use of air-purifying respirators.
C	The atmospheric contaminants, liquid splashes, or other direct contact will not adversely affect or be absorbed through any exposed skin**;** The types of air contaminants have been identified, concentrations measured, and an air-purifying respirator is available that can remove the contaminants; and, All criteria for the use of air-purifying respirators are met.
D	The atmosphere contains no known hazard; and, Work functions preclude splashes, immersion, or the potential for unexpected inhalation of, or contact with hazardous levels of any chemicals.
Modified D	Contact with low-levels of contaminants may occur.

Combinations of personal protective equipment other than those described for Levels A, B, C, and D protection may be more appropriate and may be used to provide the proper level of protection.

The table below lists the minimum initial level of personal protective equipment required for each task of the project scope of work.

MINIMUM PPE LEVEL FOR EACH TASK

TASK	LEVEL OF PPE	COMMENTS
1. Dredging Activities	Modified Level D	
2. Water Quality Sampling	Modified Level D	
3. Supervision of Amendment Process	Modified Level D	
4. Bathymetric Data Collection	Modified Level D	

8.0 EMERGENCY RESPONSE/PLANNING

8.1 Emergency Telephone Numbers/Directions to Hospital

The following telephone numbers and directions to the hospital from the site are provided to expedite emergency assistance if needed at the site.

Nearest Hospital: St Luke's Hospital
101 Page Street
New Bedford, MA 02740

Emergency/general Tel. No.: 508 997 1515

See **Appendix A** for map and directions to hospital.

Fire Department: 911
Police Department: 911

Ambulance: 911

Poison Control Center: 800-336-6997

Project Manager: Chet Myers
(617) 728-0070 X-113

Client Contact(s): Rodney Avila, Harbor Development Commission, (508) 961-3000
Debbie Yuile, Harbor Development Commission, (508) 961-3000

Corporate Health and Safety: Steve Young, Corporate Health & Safety Director
Office: (610) 722-9050 Cell: (484) 256-6960

8.2 Evacuation Procedures

If evacuation from the site is required due to an emergency such as a fire or explosion, the following action should be taken:

- First person recognizing need for evacuation will immediately notify all on-site personnel via voice, air horn or other means.
- Leave the area and report to a designated rally point established by the Site Health and Safety representative. This evacuation point may vary daily based upon site activities and weather conditions and location should be discussed at the Daily Tailgate Safety Meeting. The evacuation procedures and point should be posted so that visitors will know where it is located.
- Notify emergency medical services, if appropriate at 911.
- Account for all site personnel.
- Contact the Apex project manager and health and safety representative, and client contact as soon as practical.

- Establish site security and control measures for the neighborhood safety until emergency responders arrive and take control.

8.3 Medical Emergency

Response to a medical emergency:

- Initially survey the situation; do not enter an area that could jeopardize your safety.
- Establish the level of consciousness and then call for help, informing the Emergency Medical Service (EMS) of the patient's condition.
- If the person is unconscious, perform a primary assessment by checking for arousal, airway, breathing and circulation. (Only trained First Aid/CPR personnel should perform these tasks; state that you are medically trained).
- Conduct a secondary assessment to the conscious patient by checking for bleeding (control with direct pressure) and monitoring for vital signs.
- Do not move the person unless the location is hazardous.
- Provide First Aid to the level trained.
- Contact the project manager and health and safety representative as soon as practical and document the incident in a report to the health and safety representative.

8.4 Fire Emergency

Response to a fire emergency:

- Evacuate the area immediately and notify EMS.
- Extinguish small fires with an all-purpose fire extinguisher, provided that you have had training in the use of an extinguisher.
- Contact the project manager and health and safety representative and document the incident; document for the project file and send a copy to the health and safety representative.

8.5 Spill/Release of Hazardous Material

Response to a spill or release of hazardous material:

- Wear appropriate PPE and stay upwind of the incident.
- Turn off all sources of ignition and shut down pumps and valves to equipment in the immediate area; if possible, plug leaks and collect drippings in a container.
- Place absorbent around the incident site to soak up hazardous material.
- Call the fire department if potential for a fire exists.
- Determine if the client wants to repair the damage and whether a contractor has to be used.
- Advise the client of any release notification requirements for state or federal agencies and determine who is to complete and submit forms. Submit or report to regulatory agencies only if authorized to do so by client. Completely document interaction with client and regulatory agency. The project manager must contact the client or generator of the spill/release.

- Do not approve for transport, or transport contaminated environmental media until appropriate manifest or shipping paper have been completed and approved. Do not sign any manifest as a generator of waste. Discuss waste transportation issue with Corporate and Division representative prior to resolution for disposal.
- Notification must be made by the client, or by Apex, with permission from the client, to the proper governmental agencies. Spills/releases entering waterways must be reported to **the Coast Guard and the National Response Center at 800-424-8802. For oil or hazardous materials releases requiring 2-hour or 72-hour notification, MassDEP Emergency Response must be notified at (888) 304-1133. This spill notification applies to spills at or above their Reportable Quantities (RQs).**

8.6 Person Overboard

Be advised that if a person goes overboard during cold weather conditions, the water becomes a real danger for a fatal accident. A person in the water during cold weather conditions only has minutes before hypothermia sets in, which can lead to loss of consciousness and death.. It should be known that water removes heat from the body 25 times faster than cold air. Swimming, thrashing about, and other physical activity increases heat loss through the limbs and extremities. If you do become a person in the water, keep calm, remain still and, if possible, assume the fetal, or, heat escape lessening posture (HELP). The HELP position is with your legs pulled into your chest (e.g. fetal position) and your head above water. About 50 percent of the heat is lost from the head, so it is therefore important to keep the head out of the water.

If a person does go overboard from a vessel or otherwise falls into a water body, it is crucial that an immediate rescue response occurs. The following guidelines should be followed for a person overboard response:

- Small Watercraft (on boats, skiffs, etc.)
  - If a person goes overboard, immediately stop the motor and throw the life ring (Type IV PFD) to the person. If the boat has traveled too far from the person, maneuver the boat closer before throwing the ring. Stop motor.
  - Instruct the person to hold the ring, and slowly bring the person to the side of the boat. Depending on the boat size and configuration, the person may be able to climb back into the boat with assistance.
  - If the person cannot get into the boat because of the boat limitations, injuries, or unconsciousness, then have the person stay with the boat, try to get as much of the person's body out of the water as possible, and the person should assume the HELP position.
  - Notify the land-based personnel, and take the person to the pre-determined land-based location, or if necessary, await assistance.
- Large Watercraft (barges, dredges, ships)
  - If a person goes overboard, immediately throw them a life ring (Type IV PFD).
  - Give the order to stop all engines.
  - Notify the captain or crewmember in charge and the land-based personnel.
  - With assistance, use the rescue or lifesaving skiff to reach the person.
  - If the skiff is suitably configured, and assistance is available, the person may be able to be brought onto the skiff.

- If the person cannot get into the boat because of the boat limitations, injuries, or unconsciousness, then have the person stay with the boat, try to get as much of the person's body out of the water as possible, and the person should assume the HELP position.
- Take the person to the pre-determined land-based location, or if necessary, await assistance.

- Land-Based Areas (docks, piers, bulkheads)
  - If a person goes into the water, throw them a life ring (Type IV PFD).
  - Notify land-based personnel.
  - Depending on the configuration of the area, the person may, with the assistance of the life ring and line, be able to come to the shoreline and exit the water.
  - If the person cannot exit the water, with assistance, use the lifesaving skiff to reach the person.
  - Instruct the person to hold the ring, and slowly bring the person to the side of the skiff. Depending on the skiff size and configuration, the person may be able to climb into the skiff with assistance.
  - If the person cannot get into the skiff because of the skiff's limitations, injuries, or unconsciousness, then have the person stay with the boat, try to get as much of the person's body out of the water as possible, and the person should assume the HELP position.
  - Take the person to the pre-determined land-based location, or if necessary, await assistance.

9.0 Watercraft (Vessel, Floating Plant) Operations

Watercraft are used on this project for site reconnaissance, transport to and from barges, and as a base for performing tasks on the harbor such as water quality monitoring and bathymetric surveys. Health and safety procedures and policies relative to watercraft operations most applicable to this project highlighted below:

9.1 Inspection, Certification, and Registration

a. All watercraft that are regulated by the United State Coast Guard (USCG) shall have current inspections and certificates issued by the USCG before being placed in service and a copy shall be posted in a public area on board the vessel.

b. A Watercraft Operators Daily Checklist is included as **Appendix C** and should be completed by the operator before each daily use. Any mechanical problems must be corrected by a qualified mechanic if possible.

9.2 Personnel Qualifications

a. Personnel who will operate powered watercraft during the course of the project shall first demonstrate to the SSHO that they are experienced in operating watercraft similar to those used for the project and that they are knowledgeable of the USCG boating safety requirements (33 CFR Subchapter S). The watercraft operator shall be responsible for the safety of all personnel on board the watercraft he or she is operating and for the integrity of all watercraft and safety equipment.

b. Each designated watercraft operator shall give a safety briefing to all occupants of the watercraft prior to leaving the shore.

c. Watercraft operators must be within radio contact range with other project personnel at all times when on the water.

d. All operators must review and be familiar with the navigation charts of the area and be aware of the mean low water depths, and obstructions.

9.3 Safety Requirements

a. At least two people should be on board the vessel at all times (e.g. the “Buddy System”).

b. Small watercraft shall not be loaded (passengers and gear) beyond the weight capacity printed on the USCG information plate attached to the stern. The motor or engine utilized for propulsion must be no larger than that specified on the vessel stern plate.

c. Personnel using a watercraft shall properly stow and secure all gear and equipment against unexpected shifts when underway. Decks and open spaces must be kept clear and free from clutter and trash to minimize slip, trip, and fall hazards.

d. Personnel should utilize the "one-third rule" in watercraft fuel management, which is as follows: use one-third of the fuel to get to the destination, one-third to return, and keep one-third in reserve.

e. A Float Plan (included as **Appendix D**) must be completed prior to boating. The plan is to be given to the designated person at the project site.

f. All means of access to all types of watercraft shall be properly secured, guarded, and maintained free of slipping and tripping hazards.

9.4 Equipment Requirements

a. All project watercraft will meet or exceed U.S. Coast Guard requirements for safety equipment.

b. Each watercraft shall carry fire extinguishers (for use in gasoline, oil and grease fires) approved by Underwriters Laboratories (UL). Each fire extinguisher shall be inspected by the owner/operator monthly to ensure that it is sufficiently charged and that the nozzles are free and clear.

c. All watercraft shall carry at least one air horn or similar sound-signaling device.

d. Each watercraft operated at night shall be equipped with navigation lights and these lights shall be utilized at all times when operating between sunset and sunrise. Navigational lighting shall be in compliance with USCG requirements.

e. All watercraft shall carry a selection of pyrotechnic and non-pyrotechnic visual distress signals. Pyrotechnic visual distress signals include red flares, orange

smoke, and aerial red meteor or parachute flares. Non-pyrotechnic visual distress signals include an orange distress flag and a flashlight or other electric distress light.

f. All powered watercraft shall carry a tool kit sufficient for the watercraft operator to troubleshoot common mechanical problems.

g. All powered watercraft shall have a secondary means of propulsion (e.g. oars).

h. Fenders shall be provided to prevent damage and to provide safe areas for workers exposed to pinching situations caused by floating equipment.

i. Where appropriate, vessels should have watertight compartments readily identified and properly maintained in a watertight condition.

9.5 Personal Flotation Devices

a. A USCG approved Personal Floatation Device (PFD) shall be provided to and properly worn by all persons in the following circumstances:

- On all watercraft, including powered and non-powered vessels.
- Any work on or near water where falling into the water is a potential hazard.
- Wherever there is a drowning hazard.

b. An inherently buoyant wet suit or dry suit may be substituted for a PFD, if so approved by the SSHO, and in accordance with USCG regulations.

c. PFDs must be equipped with retro-reflective tape as specified in 46 CFR 25.25-15.

d. Each watercraft shall be equipped with at least one Type IV PFD, designed to be thrown to a person in the water and grasped and held by the user until rescued. A lifering or horseshoe buoy are two common examples of a Type IV PFD. All Type IV PFDs must be approved by the SSHO prior to use.

10.0 TRAINING REQUIREMENTS

Site workers must have completed the following training programs:

- On-site supervisors/managers directly responsible for employees engaged in hazardous waste operations must have an additional 8 hours of supervisory training (29 CFR 1010.120/1926.65);
- Field personnel assigned to provide first aid assistance at the site must be trained in first aid/cardio-pulmonary resuscitation (CPR) and bloodborne pathogens training (1926.50)
- All site personnel must attend and participate in Daily Safety Tailgate Meetings and document attendance (29 CFR 1910.120);
- Competent person training (29 CFR 1926, Subpart P) for on-site managers and supervisors (subcontractor) directly responsible for employees engaged in excavation/trenching operations;
- Hazard communication training on any hazardous substance's chemical and physical properties (29 CFR 1910.1200);

- Personal protective equipment training for personnel required to wear protective clothing (29 CFR 1910.132 and 134);
- Personnel performing air monitoring must be trained in the calibration, and operation of instrumentation used at the site (29 CFR 1910.120);
- Personnel required to extinguish small fires on site are required to be trained in the proper use of a fire extinguisher (29 CFR 1910.156/1926.150);
- All site personnel must review this HASP and be able to obtain emergency information, if needed. They must also be familiar with established emergency response and evacuation procedures for the site. This information is to be reviewed with all project personnel prior to commencement of field activities (29 CFR 1910.120);
- Workers required to provide first aid must be trained in the hazards of blood borne pathogens (29 CFR 1910.1030);
- Other training, as required, to comply with OSHA health and safety standards.

11.0 MEDICALSURVEILLANCE

Medical surveillance consisting of a baseline, annual and termination examination are required of all Apex employees and subcontractors, whose job may require working in environments with potential exposure to health hazards such as hazardous waste, petroleum products, materials, noise, lead and crystalline silica. Examination criteria and frequency will be determined by Apex's and subcontractor occupational physicians based upon guidance and regulatory requirements provided in the applicable OSHA Hazardous Waste Operation and Emergency Response Regulation (29 CFR 1910.120 or 29 CFR 1926.65). More frequent examinations may be performed at the recommendation of a qualified occupational physician.

Apex and subcontractors are also required to retain and provide employee access to medical and exposure monitoring records in compliance with OSHA 29 CFR 1910.1020 or 1926.33, Access to Employee Exposure and Medical Records.

11.1 Cold Stress Evaluation

Cold stress is anticipated to be a significant health and safety issue associated with this project since working on the water during cold weather conditions can be a serious hazard. The two forms of cold stress most applicable to this project are frostbite and hypothermia. When the body is unable to warm itself, serious cold-related illnesses and injuries may occur, and permanent tissue damage and death may result. More specific information on cold stress from the American Conference of Governmental Industrial Hygienist (ACGIH) is located in **Appendix E** as a reference. This information should be reviewed with employees prior to commencing the project.

11.2 Biological Monitoring

Biological monitoring will not need to be conducted during the course of the project.

12.0 ENVIRONMENTAL MONITORING PROGRAM

12.1 Weather Monitoring

Weather conditions will be monitored by tuning into the National Weather Service Broadcast on an hourly basis. Weather conditions will be documented and stop work will be issued if severe weather is imminent. Site activities will be discontinued in the event of thunder/lightening, high winds or sea and will not be resumed until it is determined safe to do so. The senior Apex health and safety member onsite shall make the determination as to whether it is safe to resume site activities. At a minimum, activities will not be resumed until ½ hour after the last visible lightning.

13.0 WORK ZONES/SITE CONTROL

Work zones at the site will be established by the project manager (PM) and site health and safety representative to delineate high-traffic locations. Due to the fact that the project will be completed in a working marine harbor, establishing exclusion zones will not be practical. Additionally, the nature of the work being completed (dredging activities) does not present a specific hazard to passing boaters.

Three primary work zones are to be demarcated. These include the Work Zone (WZ), Contamination Reduction Zone (CRZ) and the Support Zone (SZ). Each zone will be established by the PM or SHSO prior to commencing daily activities.

The WZ will contain areas where the survey equipment is operating. For employees involved with the survey, Modified Level D PPE is required to be worn in these areas. Use a minimum distance of ten (10) feet surrounding the WZ for the demarcation line. This will vary depending upon location to workers, public and traffic.

The CRZ will be established on land leading from the contaminated area (WZ) to the support zone. In some circumstances, the back end of the company pick-up truck may be used. The corridor will be identified by tape, cones, fencing or other barricades. Although exposure to hazardous materials is not anticipated, decontamination of personnel and equipment will occur in this zone. Vehicles and other larger pieces of equipment that may become contaminated can be decontaminated in a separate CRZ.

The SZ will include all areas outside the WZ or CRZ where breaks will be taken and general support for workers will be provided from this area.

14.0 DECONTAMINATION PROCEDURES

Although it is not anticipated to be necessary, field equipment and personal protective equipment may become contaminated during the site activities. It is important to halt the spread of contamination to vehicles, personnel and support areas by using appropriate decontamination procedures. Work clothing and Level D PPE must not be brought to workers' residences and left either at the site or in the company vehicle. Any laundering of contaminated clothing must be done by an approved laundering service and not at the workers home. The decontamination procedures discussed for workers and the area previously can be used and can be supplemented by the following procedures.

All water/detergent used in decontamination procedures should be stored in portable containers until sufficient quantities are stockpiled to facilitate disposal treatment. All disposable PPE and sampling equipment must be placed in plastic bags and temporarily stored in designed open-top drums. These drums will be disposed of in accordance to established guidelines, if required.

As workers exit the Work Zone into the Contamination Reduction Zone, a table can be set up to hold brushes, which can be used to remove coarse contaminated debris from the PPE. Several plastic "kiddy" pools can be used to rinse rubber boots, and a drum used to collect contaminated materials or tools. Showers and toilette facilities should be located toward the end of the corridor. A table should also be available to store respirators and protective storage bags, monitoring equipment and other disposable supplies. Set up the decontamination corridor so that it is divided into a front and rear section. In the front section the following activities should occur:

- Gross contamination is removed with the brushes supplied on the table.
- Outer boot covers are removed and disposed of in the drum.
- The Tyvek suit is removed and disposed of in the drum.
- The outer gloves are removed and disposed of in the drum.
- Workers should proceed to the rear portion of the corridor next and perform the following decontamination tasks:

    - Inner gloves are removed and disposed of in the drum.
    - Hands should be wiped clean with a toilette and disposed of in the drum.
    - Showers may be taken, if warranted at this site in this section of the CRZ and personnel clothing changed.
    - Worker exits the decon corridor.

The following decontamination procedures can be used:

Field Equipment:
Equipment such as recovery tools, sampling equipment and other items can be decontaminated with a solution of detergent and water. Equipment should be rinsed with clean water prior to leaving the site. Protect clean materials from exposure by covering with disposable covers such as plastic to minimize required decontamination activities. For example, a small plastic bag can be taped around not-critical portions of air monitoring instrumentation, to protect from damaging electronics by water.

Disposable PPE:
PPE including Tyvex suits and latex inner gloves can be disposed of according to state, federal and client requirements.

Non-disposable PPE:
Reusable boots and gloves should be decontaminated on the outside with a solution of detergent and water and should be rinsed with clean water prior to leaving the site. As a general rule, boots and gloves that have been heavily contaminated should not be used for more than four weeks; after that time it is advisable to use new items.

15.0 CONFINED SPACES

- There are not confined space entries anticipated for this project.

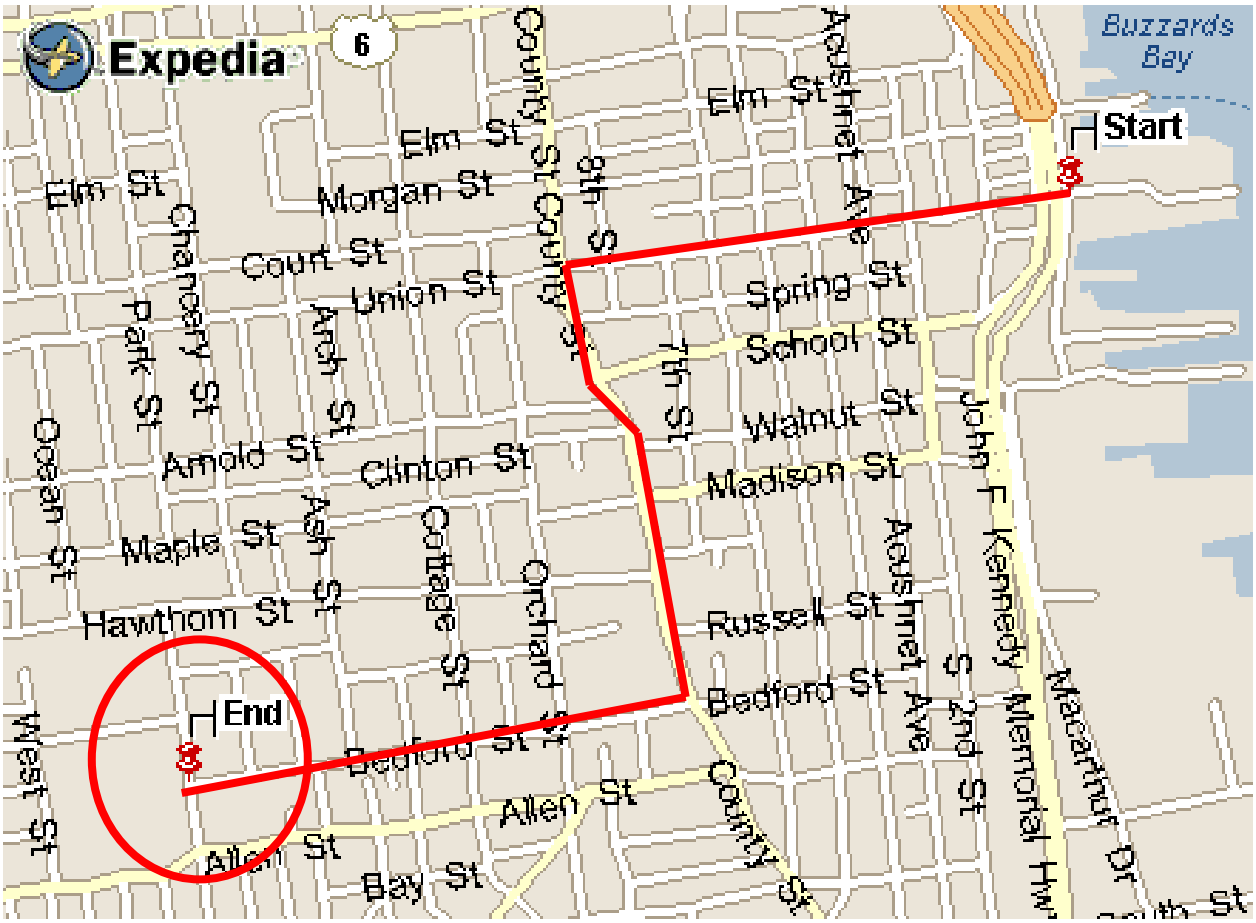
16.0 HEALTH AND SAFETY PERSONNEL ROLES AND RESPONSIBILITIES

The following table summarizes personnel responsibilities at the job site. This information should be reviewed with all project personnel prior to commencing site activities.
Roles and Responsibilities of Project Personnel

PERSONNEL	ROLES AND RESPONSIBILITIES
Program Managers	• Provides direction, management and resources to achieve goals and objectives of project • Responsible for developing and implementing systems to ensure employees follow the HASP • Responsible for general safety performance of employees and implementing a phased disciplinary program for employees violating health and safety programs • Assigns and communicates safety and health responsibility to subordinates and holds subordinates accountable for their performance
Project Manager/Field Operations Lead	• Ensures that specific work tasks are properly prioritized, planned and conducted in a safe manner • Verifies all site workers meet OSHA regulatory requirements • Provides resources and equipment necessary to conduct and execute assigned tasks in a safe manner • Designates an adequate number of health and safety specialists with the necessary authority and responsibility to develop and implement the HASP and to verify its effectiveness • Provides periodic health and safety program reviews/audits to ensure program effectiveness and quality
Health and Safety Specialists	• Provides technical expertise necessary to carry out requirements and support work activities • Provides training on the HASP, Hazard Communication, and other project specific health and safety training • Implements and enforces HASP requirements, with project personnel assigned to work under their jurisdiction • Conducts initial site safety review and conducts exposure and environmental monitoring • Ensures that adequate safety controls are maintained • Obtains related information on suspect hazardous materials to facilitate preparation of hazardous material abatement • Ensures that appropriate health and safety-related project documentation is maintained for the project

PERSONNEL	ROLES AND RESPONSIBILITIES
Site Laborers	• Conduct work in a safe manner in accordance with the HASP, other applicable safe work procedures and controls specified in permits such as hot work or confined space entry permits • Appropriately uses assigned personal protective equipment • Observes their work area surroundings for potential safety issues • Reports unsafe work conditions or practices to the health and safety specialist/site safety and health officer • Initiates feasible personal action to eliminate/mitigate unsafe conditions
Visitors	• Remain outside designated work zones unless authorized by Project Manager to enter hot or contamination reduction zones wearing appropriate PPE • Comply with all site specific HASP requirements including safe practices and levels of PPE • Comply with training, medical surveillance and other requirements of the HASP, if access is permitted on the site

APPENDIX A. DIRECTIONS TO ST. LUKE'S HOSPITAL



Directions	Distance	Time
Start: Depart 104 Co-Op Wharf (South)	0.1	0:01
1: Turn **LEFT** (South) onto Macarthur Drive	< 0.1	0:01
2: Cross **John F Kennedy Memorial Hwy**	0.2	0:01
3: Turn **RIGHT** (West) onto **Union St**	0.5	0:02
4: Turn **LEFT** (South) onto **County St**	0.4	0:02
5: Turn **RIGHT** (West) onto **Bedford St**	0.5	0:02
End: Arrive 101 Page St, New Bedford, MA, 02740	< 0.1	< 1min
Total Route	**1.8 mi**	**8 mins**

APPENDIX B. DAILY TAILGATE SAFETY MEETING FORMS

Apex environmental, inc.

DAILY TAILGATE SAFETY MEETING FORM

Instructions:

- **Conduct a Daily Tailgate Safety Meeting with site personnel prior to commencing daily activities. Safety topics can be selected from the attached table.**
- **Address potential hazards and controls for tasks that will be conducted.**
- **Discuss air monitoring, training, PPE and other appropriate requirements.**
- **Follow-up on noted items and document the resolution of any action items.**

Date: _____

Meeting conducted by: _____

Project/Site: _____

Safety topics/information reviewed: _____

_____

_____

_____

_____

_____

Follow-up action items/comments: _____

_____

_____

_____

_____

_____

Attendance:

NAME	**SIGNATURE**	**COMPANY/AGENCY/OTHER ORG.**

Apex environmental, inc.

DAILY TAILGATE SAFETY MEETING TOPICS GUIDE

1. ACCIDENT REPORTING
2. AIR MONITORING
3. AIR MONITORING AND ACTION LEVELS
4. ALCOHOL CONSUMPTION AND WORKSITE SAFETY
5. COLD STRESS
6. CRANE SAFETY
7. DAILY WORK TASK HAZARDS
8. DECONTAMINATION
9. DISCIPLINARY POLICY FOR NOT FOLLOWING SAFETY RULES/SAFE WORK PRACTICES
10. DRILL RIG SAFETY
11. ELECTRICAL SAFETY
12. EMERGENCY RESPONSE/EVACUATION POINT
13. ERGONOMICS
14. EXCAVATION/TRENCHING HAZARDS
15. EYE WASH STATION LOCATION (S)
16. FALL PROTECTION
17. FIRE SAFETY/BONDING-GROUNDING TECHNIQUES
18. FIRST AID/CPR
19. FUGITIVE DUST CONTROL
20. GENERAL SITE SAFETY RULES
21. HAND TOOL HAZARDS
22. HAZARD COMMUNICATION/LOCATION OF MSDS/REVIEW OF HAZMAT PROPERTIES
23. HEALTH AND SAFETY PLAN
24. HEARING PROTECTION
25. HEAT STRESS
26. HEAVY MACHINERY
27. HOSPITAL DIRECTIONS
28. HOUSEKEEPING
29. MATERIAL HANDLING
30. MECHANICAL HAZARDS/GUARDING/LOTO
31. OVERHEAD HAZARDS
32. PERSONAL PROTECTIVE EQUIPMENT
33. RESPIRATORY PROTECTION AND FILTER CHANGE-OUT SCHEDULE
34. ROLES AND RESPONSIBILITIES
35. SITE SECURITY
36. SMOKING AND BREAK AREAS
37. UNDERGROUND UTILITIES
38. USE OF “BUDDY SYSTEM”
39. WATER HAZARDS
40. WELDING SAFETY
41. WORK STOPPAGE

APPENDIX C. WATERCRAFT – OPERATOR'S DAILY CHECKLIST

Watercraft - Operator's Daily Check List

Daily pre-shift inspection is a recommendation. Document that these inspections have been made.

Make: _____ Date: _____

Model: _____ Operator: _____

SAFETY AND OPERATIONAL CHECKS (Prior to each shift)
Have a qualified mechanic correct all problems

	OK = P NA = Not Applicable	Maintenance needs and comments
Watercraft Checks:		
Leaks - Oil, Battery, etc.		
Fuel Supply Hoses - Check visually		
Hull - Check for any leaks		
Gas Level - keep at least 1/3 tank for reserve		
Oil Level		
Working Surfaces - Check for unmarked trip hazards and slippery surfaces		
Bilge Pump - Functioning properly		
Deck Loading - Check maximum capacity		
Capacity Plate - Check that the motor is no larger than specified on vessel stern plate		
Equipment Checks:		
PFDs (Type I, III, or V) - At least 1 per passenger		
Throwable PFD(s) (Type IV) - 2 for watercraft 40 ft or longer in length		
Fire Extinquishers - 1 for watercraft less than 26 ft., 2 for 26 feet or more in length		
VHF and/or Marine Radio		
Sound Signaling Device - Air horn or similar		
Navigation Lights - Functioning properly		
Visual Distress Signals - Pyrotechnic and non-pyrotechnic		
Tool Kit		
Fenders		
First Aid Kit		
Secondary means of propulsion (e.g. oars)		
Bailer		
Anchor and line		
Dock lines		
Operator's Initials =		

APPENDIX D. FLOAT PLAN

FLOAT PLAN

Complete this plan before you go boating. Leave it with the designated reliable person at the project site. Ask the person holding the plan to notify the Coast Guard or other local authorities if you do not return by the "If Not Returned By" time.

THIS PLAN DOES NOT HAVE TO FILED WITH THE COAST GUARD

Upon return, take the plan back from the person holding it and submit it to the Site Safety & Health Officer

Pilot's Name : _____ **Phone #** : _____
Address :_____

DESCRIPTION OF VESSEL

Name of Vessel : _____ **Registration # :**_____
Type :_____ **Hull Color :**_____ **Trim Color :**_____
Make :_____ **Hull Material :**_____ **Length :**_____
Distinguishing Features :_____
Engine(s) Number/Type/Horsepower :_____
Fuel Type/Capacity :_____**Watercraft Checked-in proper working order** □

TRAILER INFO

Tow Vehicle Registration # : _____ **State :** ____ **Make/Model/Color :** _____
Trailer Registration # : _____ **State :** ____
Ramp Location : _____

PASSENGERS ON-BOARD

Name	Age	Address & Phone #
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

TRIP DETAILS

Departure Date : ___/ /_____ **Departure Time** : _____AM/PM
Point of Departure :_____

Destination(s)/Purpose of Trip: _____

Point of Return : _____

Planned Return Date : _____/ /_____ **Planned Return Time :** _____AM/PM

SAFETY EQUIPMENT ON-BOARD

☐ **PFDs** ☐ **Flares** ☐ **Flag and Flashlight** ☐ **Dock & Anchor Lines** ☐ **Anchor** ☐ **Paddle** ☐ **VHF Radio (Monitor Channel 13 and Weather Alert Channel)**

NOTIFICATION

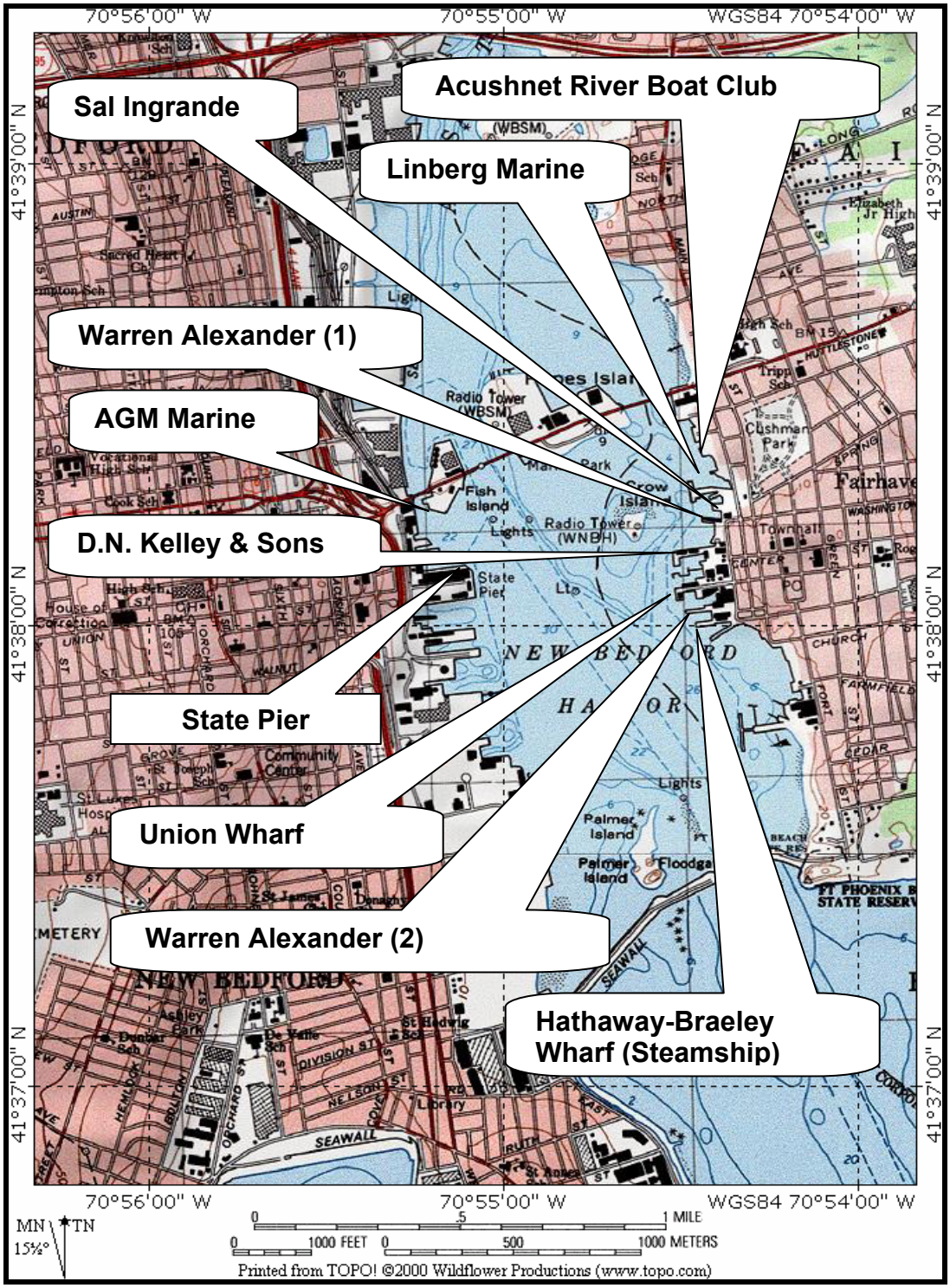
If not returned by _____ please Dial 911

APPENDIX E. COLD STRESS GUIDELINES

FORMS AND SYMPTOMS OF COLD STRESS

FORM	SYMPTOMS	FIRST AID MEASURES
Frostbite	• Pale, waxy-white skin color • Skin becomes hard and numb	• Move to warm area • Change wet clothing • DO NOT rub affected area • Gently place affected area in warm water bath (105°F) • After warming, affected area should be dried and wrapped to keep it warm
Hypothermia	• Fatigue and Drowsiness • Uncontrolled shivering • Cool, bluish skin • Slurred speech • Clumsy movements • Irritable • Irrational or confused behavior	• Call for Emergency help • Move to warm, dry area • Do not leave person alone • Remove wet clothing and replace with warm, dry clothing or wrap in blankets • Have person drink warm, sweet drinks if they are alert (Avoid drinks with caffeine or alcohol) • Have person move arms and legs to create heat • In unable to move, place warm bottles or hot packs into the arm pits, groin, neck, and head areas • DO NOT rub the person's body or place them in a warm water bath-this may stop their heart • If overboard, DO NOT remove clothing, DO NOT struggle, wait quietly

APPENDIX F. SITE MAP



Site Location Map
New Bedford Harbor Dredge - Phase III
City of New Bedford, New Bedford, Massachusetts

APPENDIX G. INJURY/EXPOSURE INCIDENT REPORT FORM

APEX INCIDENT REPORT FORM (AIR FORM)

INCIDENT ID NO. (ASSIGNED BY CORPORATE)

Instructions: this Apex Incident Report (AIR) Form is to be completed by the Apex employee experiencing any of the incident types listed below. The AIR Form can also be completed with support from the employee's Supervisor, or Office Central Safety Committee. This form is to be completed for motor vehicle accidents/incidents, near miss incidents, environmental incidents, first aid/minor injury incidents, fires, property damage, thefts, community complaints and other incidents deemed important for review by Apex employees. The AIR Form must be answered completely and submitted to Apex's Corporate Human Resources Office in Rockville, Maryland within 72 hours of the incident.

Type of Incident:	☐	Motor Vehicle	☐	Near Miss
	☐	Environmental	☐	First Aid/Minor Injury
	☐	Fire	☐	Property Damage
	☐	Theft	☐	Community Complaint
	☐	Other		

Report prepared by_____ Job title_____

Address_____ Phone_____

Employee ID No._____ Home office_____

Date and time of incident_____

Description of incident_____

_____

_____

_____

_____

_____

_____

_____

_____

Witness(es) _____ Phone _____

_____ _____

_____ _____

Witness(es) Statement(s) Attached?_____ If not, please provide a summary of the information provided by witness(es):_____

Work task at time of incident

Description of incident

Describe the unsafe act or condition contributing to the incident

Corrective measures taken or recommended to prevent a similar incident

Supervisor Printed Name Signature

Date

If similar incidents have occurred in the office or on projects, please discuss

Corporate Health and Safety and Human Resources Representatives Review:

Agree with action taken? Human Resources: Yes No
Health & Safety: Yes No

Human Resources comments

Health and Safety comments_____

_____

_____

Human Resources Representative:
Signature_____
Printed_____
Date_____

Health and Safety Officer:
Signature_____
Printed_____
Date_____

MONTHLY INJURY/EXPOSURE REPORT

Name: _____

Social Security Number: _____

Firm/Region: _____

During (month/year): _____ to the best of my knowledge, I have/have not (circle one) received reportable exposure or been injured on the job. I have been on the following sites:

Site Name	Site Number

If have was circled above, or if you wish to report any occurrences with respect to health and safety, please fill out the applicable sections of the remainder of this form.

Signed: _____

If the employee has received a reportable exposure, or if any injury has occurred as indicated by circling have previously, an Injury/Exposure Report must be submitted to the Site Safety and Health Supervisor (SSHO).

If you wish to report any occurrences with respect to health and safety, please answer the following:

	Yes	No
Any occurrences with respect to health and safety?		
Any violations of health and safety rules observed?		
Any physical difficulties while on assignment?		
Any exposure or injury?		
Was an Injury/Exposure Report submitted?		
Date Injury/Exposure Report submitted:		

Comments or suggestions:

_____

_____

_____

_____

_____

_____

APPENDIX H. JOB SAFETY ANALYSIS

JOB SAFETY ANALYSIS FOR MARINE CONSTRUCTION		
Potential Hazards	Hazard Control Measures	**Personal Protective Equipment**
Aboveground/Underground Utilities	• Contact Dig Safe Prior to beginning work. • Identify utilities and maintain adequate distance.	
Chemical Exposure	• Review HASP. • Understand and comply with PPE requirements. • Avoid contact with soil and other contaminated materials. • Review hazardous properties of site contaminants prior to starting work. • Use proper hygiene practices.	Hard Hat, Safety Glasses, Gloves, Tyvek (if warranted)
Slip, Trip, Fall	• Keep work areas cleared and organized. • Use caution when walking in wet, muddy, or icy conditions. • Avoid working in close proximity to the edge of the boat if possible.	Safety Glasses, Hard Hat, Gloves
Sharp Objects	• Wear cut resistant gloves when sharp edges or object may cause lacerations. • Maintain all tools in a safe condition.	Leather gloves
Drowning	• Wear PFD while working on or near the water • Use the buddy system • Avoid working near the edge of the boat if possible	PFD
Heat/Cold Stress	• Dress appropriately for the weather. • Avoid dehydration; drink plenty of fluids. • Monitor for symptoms of heat/cold stress.	Proper clothing
High Noise Levels	• Use hearing protection when exposed to excessive noise levels	Hearing protection

APPENDIX I. INTERNATIONAL CHEMICAL SAFETY CARD (PCB)

POLYCHLORINATED BIPHENYL (AROCLOR 1254)

0939
October 1999

CAS No: 11097-69-1
RTECS No: TQ1360000
UN No: 2315
EC No: 602-039-00-4

Chlorobiphenyl (54% chlorine)
Chlorodiphenyl (54% chlorine)
PCB
Molecular mass: 327 (average)

TYPES OF HAZARD/ EXPOSURE	ACUTE HAZARDS/SYMPTOMS	PREVENTION	FIRST AID/FIRE FIGHTING
FIRE	Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.		Powder, carbon dioxide.
EXPLOSION			

EXPOSURE		**PREVENT GENERATION OF MISTS! STRICT HYGIENE!**	
Inhalation		Ventilation.	Fresh air, rest. Refer for medical attention.
Skin	MAY BE ABSORBED! Dry skin. Redness.	Protective gloves. Protective clothing.	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.
Eyes		Safety goggles, face shield.	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Ingestion	Headache. Numbness.	Do not eat, drink, or smoke during work.	Rest. Refer for medical attention.

SPILLAGE DISPOSAL	**PACKAGING & LABELLING**	
Consult an expert! Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT let this chemical enter the environment. (Extra personal protection: complete protective clothing including self-contained breathing apparatus).	Xn Symbol R: 33-50/53 S: (2-)35-60-61 Note: C UN Hazard Class: 9 UN Pack Group: II	Unbreakable packaging; put breakable packaging into closed unbreakable container. Do not transport with food and feedstuffs. Severe marine pollutant.

EMERGENCY RESPONSE	**STORAGE**
Transport Emergency Card: TEC (R)-914	Separated from food and feedstuffs. Cool. Dry. Keep in a well-ventilated room.

IPCS
International Programme on Chemical Safety

Prepared in the context of cooperation between the International Programme on Chemical Safety and the European Commission

SEE IMPORTANT INFORMATION ON THE BACK.

IMPORTANT DATA

Physical State; Appearance
LIGHT YELLOW VISCOUS LIQUID.

Chemical dangers
The substance decomposes in a fire producing irritating and toxic gases.

Occupational exposure limits
TLV: 0.5 mg/m^3 A3 (skin) (ACGIH 1999).

Routes of exposure
The substance can be absorbed into the body by inhalation of its aerosol, through the skin and by ingestion.

Inhalation risk
A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20°C.

Effects of long-term or repeated exposure
Repeated or prolonged contact with skin may cause dermatitis. Chloracne is the most visible effect. The substance may have effects on the liver. Animal tests show that this substance possibly causes toxic effects upon human reproduction.

PHYSICAL PROPERTIES

Relative density (water = 1): 1.5
Solubility in water: none
Vapour pressure, Pa at 25°C: 0.01
Octanol/water partition coefficient as log Pow: 6.30 (estimated)

ENVIRONMENTAL DATA

In the food chain important to humans, bioaccumulation takes place, specifically in water organisms. It is strongly advised not to let the chemical enter into the environment.

NOTES

Changes into a resinous state (pour point) at 10°C.
Distillation range: 365-390°C.

ADDITIONAL INFORMATION