

SECTION 01065**PROJECT HEALTH AND SAFETY SPECIFICATIONS****PART 1 GENERAL****1.01 SUMMARY**

- A. Section includes preparing a site-specific Health and Safety Plan (HASP) specifying protection for all workers, including the Subcontractors, onsite personnel, visitors and abutters from all potential hazards. During the performance of all Work, provide all labor, materials and equipment necessary to implement the HASP and to fulfill all applicable requirements under federal, state and local laws, ordinances, rules and regulations governing the safety of persons and protection of property. The HASP shall include a Site Specific Safety Plan (SSSP) meeting all requirements applicable to the Work, including but not limited to, OSHA requirements, and any and all federal, state, or local requirements.

1.02 RELATED SECTIONS

- A. Section 01010 – Summary of Work
- B. Section 01100 – Hazardous Material Abatement
- C. Section 01300 – Submittals

1.03 CODES AND STANDARDS

- A. Occupational Safety and Health Administration (OSHA) regulations:
 - 1. 29 CFR 1910 - Occupational Safety and Health Standards
 - 2. 29 CFR 1926 - Safety and Health Regulations for Construction
- B. All other federal, state and local requirements and regulations in effect at the time of construction.

1.04 SUBMITTALS

- A. Submit the following in accordance with Section 01300 – Submittals:
 - 1. General:
 - a. SSHO Qualifications: Submit qualifications of a Site Safety and Health Officer (SSHO) who will be responsible for implementing, monitoring and enforcing the Health and Safety Plan during Work, in the form of a resume demonstrating

qualifications specified in this Section, within ten (10) working days after Notice to Proceed.

- b. CIH Qualifications: If any of the Work is subject to the provisions of 29 CFR 1910.120, submit qualifications of a Certified Industrial Hygienist (CIH) who shall be responsible for preparation of the HASP, in the form of a resume demonstrating qualifications specified in this Section, within ten (10) working days after Notice to Proceed.
- c. HASP, including the SSSP: Within thirty (30) working days after Notice to Proceed, submit a project-specific HASP and SSSP prepared by the CIH, which identifies all known and potential hazards and describes the methods and procedures for protecting worker health and safety. If any of the Work is subject to the provisions of 29 CFR 1910.120, the HASP and SSSP shall be prepared by a CIH. No work shall be performed until the Authority has reviewed the HASP.
- d. Daily Safety Logs: Maintain daily safety logs and reports covering the implementation of the HASP during the duration of the Work. The format shall be developed to include daily safety logs, weekly reports, and a phase out report. Submit copies of all logs and reports on a weekly basis. Daily Safety Logs shall include the following:
 - i. Date
 - ii. Area (site specific) checked
 - iii. Employees in particular area
 - iv. Site visitors, name, affiliation, purpose of site visit
 - v. Equipment being utilized by employees
 - vi. Protective clothing being worn by employees
 - vii. Protective devices being used by:
 - 1) The Contractor's personnel
 - 2) Visitors
 - 3) Designated state and federal representatives
 - viii. Air monitoring data including description of area being monitored, equipment used, and readings taken
 - ix. SSHO signature and date

e. Monthly Safety Reports

1.05 QUALITY ASSURANCE

- A. If any of the Work is subject to the provisions of 29 CFR 1910.120, provide a CIH who has performed at least five (5) construction projects of similar or greater size and complexity within the past ten (10) years.
- B. Conduct a Site reconnaissance to determine the appropriate safety procedures and level of worker safety equipment for use in preparation of the HASP which shall conform to current worker safety practices. If any of the Work is subject to the provisions of 29 CFR 1910.120, the site reconnaissance shall include hazardous waste safety practices and the HASP shall be stamped and signed by the CIH.
- C. Onsite workers shall have training and certification for health and safety and for confined space entry, if any is required to perform the Work, as required under OSHA regulations.
- D. The SSHO shall be trained and certified in accordance with OSHA regulations, including confined space entry requirements (29 CFR 1910.146), if any is required to perform the Work. The SSHO shall have performed at least five (5) construction projects of similar or greater size and complexity within the past ten (10) years.
- E. The Contractor's SSHO shall be present on-site for all working hours to monitor health and safety requirements throughout the performance of Work. It shall be the SSHO's responsibility to notify the Authority of any deviations from the HASP.

1.06 QUALIFICATIONS (NOT USED)

1.07 DELIVERY, STORAGE, AND HANDLING (NOT USED)

1.08 PROJECT/SITE CONDITIONS (NOT USED)

1.09 DEFINITIONS (NOT USED)

1.10 TOLERANCE (NOT USED)

1.11 SYSTEM DESCRIPTION

- A. All Work shall be conducted in compliance with OSHA 29 CFR 1910 and 1926.
- B. Safety:
 - 1. The Contractor, the Subcontractors, employees, agents and invitees shall comply with the Health and Safety Plan while on Site.

2. No later than the fifth working day of each month submit a monthly safety report for the prior month providing statistical information on hours worked, number of accidents and injuries, and amount of time lost due to injuries.
3. Provide protection per the SSSP for all persons including, but not limited to, the Contractor's employees and employees of other contractors or Subcontractors; members of the public; and employees, agents, and representatives of the Authority and regulatory agencies that may be on or about the Work areas.
4. Protect from damage all Authority owned property including, but not limited to, structures, pipes, and utilities, above and below ground.
5. No work on site shall be performed until the HASP, SSSP, Authority Work Requests, and Authority Lock-Outs are reviewed by the Authority. (The Work Request system advises Authority staff of the Contractor's work activities. The Lock-Out system is a safety procedure to prevent unintended equipment activation.) Compliance with OSHA requirements for the control of the release of hazardous energy during the service and maintenance of equipment shall remain the responsibility of the Contractor.
6. Regulated, Hazardous, and Flammable materials stored in quantities greater than the federal, state, and local Reportable Quantities (RQ) require the Authority's review before they are brought on Site. These materials must be stored in containers, cabinets, or containment structures designed for such storage. Keep any flammable materials such as cleaning solvents, thinners, or adhesive materials away from open flames, sparks or high temperatures. Drums containing regulated, hazardous or flammable materials shall be labeled in accordance with applicable law, not greater than forty-six (46) gallons in size, be grounded (if flammable), and shall be stored over full drum containment (110% capacity of largest single vessel).
7. Maintain clean work areas, free of recognized hazards, and maintain readily accessible first aid kits with emergency equipment providing for the risks involved in the Contractor's work.
8. Smoking is not permitted at Authority facilities or on Authority property.
9. The Health and Safety Plan shall note the NFPA 70 hazard classifications of each area of the building(s) and shall address requirements for the use of gas monitors, spark free tools and other steps required to safely work in a classified environment. Area classifications are as indicated on the Drawings.

PART 2 PRODUCTS (NOT USED)**PART 3 EXECUTION****3.01 PREPARATION OF HEALTH AND SAFETY PLAN**

A. The HASP shall be in compliance with the health and safety standards set forth by OSHA as described in 29 CFR 1910 and 1926. The site-specific HASP shall include but not be limited to the following:

1. Identification of Key Personnel
2. Understanding of Project Work
3. Identification of Chemical and Physical Hazards and Risks
4. Excavation Entry
5. Personal Protective Equipment (PPE)
6. Respiratory Protection Equipment (RPE)
7. Standard Operating Procedures
8. Worker Training and Medical Requirements
9. Emergency Response Plans and Procedures
10. Personnel Monitoring Program
11. Environmental Monitoring Program

3.02 PREPARATION OF CONFINED SPACE ENTRY PLAN, IF REQUIRED TO PERFORM THE WORK

A. All entries into and exits out of the confined spaces shall be in accordance with the procedures described in OSHA Confined Space Pre-Entry Check List and Entry Permit. Entries and exits from the confined space shall be documented and kept on file. Provide copies of the checklist to the Authority following each entry/exit.

B. If Confined Space Entry is required to perform the Work, the SSSP shall include a Confined Space Entry Plan in compliance with 29 CFR 1910.146 which shall contain personnel, equipment and procedures for confined space entry, including but not limited to:

1. Scope of Confined Space Entry Work
2. Entry/Exit Procedures

3. Project Personnel and Training/Certification Requirements
 4. Hazard Evaluation: Description of atmospheric, chemical, physical, biological and engulfment hazards which may be encountered, and the steps taken to reduce occurrence and/or protect personnel from the hazards.
 5. Equipment and PPE
 6. Air Monitoring and Atmospheric Testing
 7. Communication Procedures
 8. Emergency/Rescue Contacts
 9. Emergency/Rescue Team
 10. Permit Forms
 11. Ventilation Procedures
- C. A pre-entry conference will be required within 48 hours of initial confined space entry to review tasks, known and suspected hazards and individual responsibilities during the entry/exit. Within 72 hours of completion of all work requiring confined space entry procedures, conduct and attend a brief post-entry conference with the Authority to review accidents, incidents, or safety concerns that occurred, if any, and assess overall success of completed work.
- D. Document all entries and exits into confined space using the inspection checklists. Copies of CONFINED SPACE ENTRY permits and any incident reports and/or investigation forms shall be provided to the Authority and kept on file for the duration of the project.
- E. Site Specific Safety Plan Program:
1. A sample SSSP is appended to this Section as Attachment 01065-A. The Contractor's corporate safety plan may be used as the basis for the SSSP, but the corporate plan must be adapted to address all Site specific safety requirements.
 2. The SSSP shall include at least the following:
 - a. Site description including the limits of construction, special conditions, intrinsic hazards and a street address for responders.
 - b. A description of the Site specific safety organization identifying who has on-site safety responsibilities, their qualifications as well as a description of all safety management reports.

- c. Names of personnel designated 'Competent Persons' as needed to comply with 29 CFR 1910 and 1926.
 - d. Description of the Work being performed.
 - e. A Job Hazard Analysis (JHA) specific to the work and work area.
 - f. Hazard mitigation strategies.
 - g. Identification of required procedures in accordance with all work plans and applicable regulations, including OSHA (e.g. Confined Space, Respirator Use).
 - h. Training Matrix identifying the needed training and affected employees for hazard mitigation and procedural compliance.
 - i. Documentation of the training process.
 - j. Detailed Site Specific Procedures for conducting safe working conditions associated with trenchless methods of installation.
 - k. Detailed Site Specific Procedures for conducting safe working conditions associated with encountering, handling and disposal of asbestos cement pipe.
- F. Notify the Authority verbally and in writing as quickly as possible should any unforeseen safety hazard or condition become evident during the performance of the Work. In the interim, take action to establish and maintain safe working conditions and to safeguard employees, the public, and the environment.

3.03 COORDINATION WITH EMERGENCY RESPONDERS

- A. Provide access to the Work for Town of Needham emergency responders to perform safety planning and safety drill activities. Coordinate with the Authority to perform these activities.
- B. Attend a site visit with Town of Needham emergency responders after the launching pit is installed and prior to the start of pipe jacking/auger boring.

PART 4 ATTACHMENTS

4.01 ATTACHMENT 01065 – A – EXAMPLE SITE SPECIFIC HEALTH AND SAFETY PLAN

ATTACHMENT 01065 – A

EXAMPLE SITE SPECIFIC HEALTH AND SAFETY PLAN

ATTACHMENT 01065 – A

[Note: This plan was developed for work at the Deer Island Treatment Plant and is included as an example only. The SSSP submitted for the Work must reflect the conditions at the site(s) where the Work will be performed.]

SAMPLE

Site Specific Safety Plan for Installing a Widget at the Deer Island Treatment Plant

Contract Number XXXX

Submitted by The Acme Construction Corp.

Jane Smith, Senior Safety Officer

Date: xx/xx/xx

Revision Number 1

1.0 Site Description:

The Deer Island Treatment Plant (DITP) is a large, Publicly Owned Treatment Works (POTW), located in Boston Harbor. Its street Address is 190 Tafts Avenue, Winthrop Massachusetts, 02152. Vehicle access can only be made through the community of Winthrop, Massachusetts via Tafts Avenue. All construction vehicles must use the approved truck route to ensure public safety.

The DITP is located on over 150 acres, has over fifty structures and 70,000 pieces of equipment. The facility has several areas that under either normal or upset conditions could reasonably be assumed to contain explosive concentrations of toxic and ignitable gasses.

The DITP stores and transports large volumes of regulated materials, most of which are either corrosive or ignitable. In addition to the materials utilized in the process, the DITP has hundreds of unlabeled confined or restricted spaces. Therefore, all manholes, basins, basements, and vaults are considered to be permit required unless otherwise described by the DITP.

The DITP has a very significant hydraulic profile and the forces associated with the hydraulics are of a vast magnitude. Care must be used whenever working on or near piping, valves, pumps, or vessels of any kind.

NOTE: The DITP is non-smoking environment. The CONTRACTOR is not allowed to smoke at the

DITP.**2.0 Acme Corporation's Site Safety Organization:**

The Acme Corporation has a corporate Safety Officer, Ms. Jane Smith, who is responsible for overall safety management. On this project for the Authority our foreman, John Jones, will serve as our on-site safety representative. Their contact information is included in Section XX and Mr. Jones' credentials are included in our attached Training Matrix.

3.0 Description of the Work:

The Acme Corp. will be installing six large widgets in the lower level of the North Main Pump Station. The widgets are large in size and will require the use of rigging to seat them on their pads. Once seated the widgets will be welded in place, painted, electrically connected, and tested to ensure functionality. A job hazard analysis is provided in Section X of this plan and will provide more detailed information on the tasks themselves.

4.0 Procedures:

The following Acme procedures are attached for use on MWRA Project XXXX:

- Personal Protective Equipment
- Right to Know (Hazard Communications)
- Hoisting and Rigging
- Crane Safety
- Hot Works
- Lockout/Tagout (LOTO)
- Electrical Safety
- Fall Protection/Elevated Work Areas.

5.0 Communications:

NAME	TITLE	PRIMARY CONTACT NUMBER	SECONDARY CONTACT NUMBER
Sara White	Acme Project Manager	xxx.xxx.xxxx	xxx.xxx.xxxx
Jane Smith	Acme Safety Officer	xxx.xxx.xxxx	xxx.xxx.xxxx
Gretchen Green	MWRA Project Manager	xxx xxx xxxx	xxx xxx xxxx

NOTE: All on-site (DITP) emergency communications will be directed through the DITP's Emergency Phone Number 617.660.7666.

6.0 First Aid:

At least one of the Acme employees on-site at the DITP will be trained in CPR/First Aid. Additionally, Acme Corporation will have an OSHA compliant 25 person first aid kit available for its employees at all time. All injuries will be reported to the Authority within the shift that they occur. Any incident requiring more than basic first aid will be immediately forwarded to the DITP Emergency Phone at 617.660.7666 for appropriate handling and review. XX procedure will be followed to evacuate injured personnel and transport to the nearest hospital Emergency Response.

7.0 Traffic and Roadway Safety:

The maximum speed limit on the DITP property is 20 M.P.H. The CONTRACTOR working in or adjacent to roadways will develop and submit a procedure for doing so.

8.0 Hazardous and Regulated Materials:

This project calls for the use of paints and solvents that are regulated by the Massachusetts Department of Environmental Protection. Our employees are trained on the hazards of the materials and on how to store and apply these products. MSDS sheets have been attached for these materials. Acme Construction Corporation is responsible for the clean-up of any spilled materials caused by Acme's use or storage of those materials. Acme shall additionally be responsible for any spills caused by their employees.

9.0 Training:

The Acme Corporation has selected employees properly trained to complete the tasks associated with this project or which are required by regulation for the completion of the intended work, including the DITP CONTRACTOR Orientation training. A Training Matrix has been attached which details the relevant training our employees have received. This includes training for the use and application of Personal Protective Equipment, Right to Know (Hazard Communications), Hoisting and Rigging, Hot Works, Lockout/Tagout (LOTO) and Electrical Safety.

10.0 Attachments:

1) Procedures:

- Personal Protective Equipment

- Right to Know (Hazard Communications)
- Hoisting and Rigging
- Crane Safety
- Hot Works
- Lockout/Tagout (LOTO)
- Electrical Safety
- Fall Hazards/Elevated Work Areas

2) Training Matrix

3) Job Hazard Analysis (JHA) Form

JHA for MWRA Contract Number XXXX

Task	Hazard	Mitigation
1. Receive and unload widgets at the DITP	1a. Traffic Safety. The Widget will arrive on a flatbed tractor trailer which will need to be positioned for unloading by a crane. 1b. Each widget weighs approximately 1500 pounds.	1a. Two flagman will be provided to position both the tractor trailer and the crane. The flagman will be responsible for establishing a work zone and restricting access. 1b. See Hoisting and Rigging Procedure.
2. Lower Widgets onto housekeeping pads.	2a. Crush Hazards relating to lowering widget onto housekeeping pad. 2b. Fall Hazard working over the widget shaft.	2a. See Hoisting and Rigging Procedure. 2b. See Fall Hazards/Elevated Work Areas Procedure.
3. Install and Paint Widget.	3a. Hand and Power tool use while bolting-up widget.	3a. All Acme Corp. employees are either journey, or apprentice, trades persons knowledgeable and experienced in using hand tools. All electrically powered tools will be powered through an appropriate ground fault

Task	Hazard	Mitigation
		circuit interrupter (GFCI).
4.0 Electrical Installation and bump testing of widgets.	4a. Accidental contact with electric current.	4a. Acme will utilize its LOTO program (see LOTO Procedure. All staff will be appropriately licensed to complete this work.

Training Matrix

Employee Name	Training Type							
	LOTO	RTK	Hoisting & Rigging	Hand Tool Safety	PPE	Electrical Safety	Fall Prot./Elev. Work Platforms	Staging Competent Person
Jane Smith	X	X	X	X	X	X	X	X
John Jones	X	X	X	X	X	X	X	X
Sara White	X	X	X	X	X	X	X	X
Bill Green	X	X	X	X	X	-	-	-
Steve Black	X	X	X	X	X	-	-	-
Bob Brown	X	X	X	X	X	-	-	-

**** END OF SECTION ****