SECTION 01356 Environmental Health and Safety (EHS) Requirements

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Requirements for the Contractor to provide its employees its Subcontractors a safe and healthful work environment and for performing all Work in compliance with all applicable environmental health and safety (EHS) laws, rules, and regulations.
 - 1. The EHS performance of the Contractor and its Subcontractors is the responsibility of the Contractor. Since effective on-site management is essential for EHS performance, the Contractor shall evaluate the performance of its on-site EHS team on a continuous basis. Where deficiencies are found, the Contractor shall take appropriate action including removal of its personnel or its Subcontractors' personnel.
 - 2. The Contractor shall ensure that its employees and those of its Subcontractors working on a DEP project site under the Contract are clearly identifiable as a Project Contractor employee. This may include the use of labeled safety vests or hard hats or other acceptable means in addition to complying with the identification badge requirements of Article 37 of the Standard Construction Contract.
- B. An index of the Articles in this specification is presented hereinafter for convenience.

| <u>Article</u> | <u>Title</u> | Page |
|----------------|--|--------|
| | | 01356- |
| PART 1 | GENERAL | 1 |
| 1.01 | Section Includes | 1 |
| 1.02 | Payment | 2 |
| 1.03 | Reference Standards | 2 |
| 1.04 | Definitions | 2 |
| 1.05 | Description | |
| 1.06 | Environmental Health and Safety Plan (EHASP) | |
| 1.07 | Emergency Action Plan (EAP) | |
| 1.08 | Spill Prevention Program (SPP) | |
| 1.09 | Quality Assurance | |
| 1.10 | Submittals | 8 |
| | | |
| PART 2 | PRODUCTS | 11 |
| 2.01 | EHS Equipment | 11 |
| 2.02 | Personal Protective Equipment | |
| PART 3 | EXECUTION | 11 |
| 3.01 | EHS Staff Duties | |

| 3.02 | EPCRA and Related Hazardous Material Regulations | 14 |
|------|--|----|
| | Hot Work | |
| 3.04 | Visitors | 15 |
| 3.05 | Attachments | 16 |

1.02 PAYMENT

A. There is no separate payment provision.

1.03 REFERENCE STANDARDS

- A. The Contractor shall comply with all current federal, state, city and local EHS laws, rules, and regulations, including all those that become effective during the term of the Contract, related to ensuring health and safety of employees and to the protection of property and the environment.
- B. When working at DEP facilities and sites associated with the Work of this Contract, the Contractor and its Subcontractors shall fully comply with DEP's EHS Policies and Procedures and BWS's EHS Standards. If a provision of the DEP's EHS Policies and Procedures or BWS's EHS Standards conflicts or differs from any federal, state, City or local regulation, the more stringent requirement shall apply. Copies of the most recent version of the DEP's EHS Policies and Procedures and BWS's EHS Standards can be found in the DEP Knowledge Reservoir of the BWS web-based Project Management Information System (PMIS).
- C. The Contractor shall conform to the requirements of Exhibit A Standard Environmental, Health and Safety Specifications, attached at the end of this Section. Bidders are advised of the pre-award submittal requirements specified in Exhibit A, including the "Bidder's EHS Performance and Program Review Questionnaire" provided in Exhibit B. In accordance with Section 2 of Exhibit A, the apparent low bidder shall provide the specified pre-award submittals within 5 business days of DEP's request. Failure to fulfill these submittal requirements may result in the rejection of a bid as non-responsive.

1.04 DEFINITIONS

- A. "Competent Person" means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees or the environment, and who has authority to take prompt corrective measures to eliminate them. A Competent Person has stop work authority.
- B. "EHS Resources" shall mean the Contractor's EHS Professional(s) and its EHS Site Representative (EHS Rep), as approved by the BWS EHS unit. This definition shall also apply to the Subcontractors' EHS Resources, where required. This definition also includes any consultant or other EHS personnel associated with the Project. Such EHS personnel are subject to evaluation and approval by BWS EHS as set forth in this Section.

01356-2

- C. "Environmental Health & Safety Plan (EHASP)" shall mean the plan developed in accordance with all applicable EHS rules and regulations and these Specifications to identify and set forth policies and procedures to control the health and safety concerns and environmental impacts known and unknown at the Site. This plan is not to be confused with the Health and Safety Plan that may be required under 29 CFR 1910.120 for Hazardous Waste Operations and Emergency Response (HAZWOPER).
- D. "Job Hazard Analysis" (JHA) shall mean a tool used to document a process by which the steps required to accomplish a work activity are outlined, the actual or potential hazards for each step are identified, and measures for the elimination or control of those hazards are developed.
- E. "Incident" shall mean an event in which a person or persons are injured or made ill, property or equipment is damaged, the environment is harmed, or an environmental release occurs.
- F. "Near Miss" shall mean an opportunity to improve environmental, health, and safety performance based on a condition, behavior, or an event with potential for more serious consequence.
- G. "Qualified Individual" shall mean one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his or her ability to solve or resolve problems relating to the subject matter, Work or Project.

1.05 DESCRIPTION

- A. In performing the Work of this Contract, the Contractor shall at all times be in compliance with all federal, state, City and local environmental, health and safety laws, rules, and regulations.
- B. The Contractor shall be responsible for the health and safety of its employees, Subcontractors, the public and all other persons at or around the Work Site. The Contractor shall be solely responsible for the adequacy of all construction methods, materials, equipment and the safe and environmentally compliant prosecution of the Work. Where possible, the Contractor shall implement Best Management Practices to reduce injuries, accidents and environmental impacts.
- C. The overall site management for EHS is performed by the Engineer in coordination with the DEP Construction Manager. The Construction Manager's EHS staff/consultant and Contractor's EHS staff shall work closely with the Engineer's designated EHS staff (i.e., coordinate to perform joint EHS activities, including inspections, incident investigations, etc.). The Contractor shall coordinate with the Engineer's EHS designee with regard to any Site rules or Site-specific requirements such as working hours, delivery times and operations coordination and sequencing.
- D. The Contractor shall perform and document its due diligence in determining whether the Subcontractors it hires to perform Work under the Contract are capable of performing to the EHS standards set forth in this Section. At a minimum, the Contractor is required to perform an EHS evaluation of proposed Subcontractors

prior to submitting them for DEP approval. The Contractor must have a Subcontractor EHS evaluation program that is at least as stringent as the DEP Contractor Selection and Management Policy available in the BWS web-based PMIS. Poorly performing Subcontractors will affect the Contractor's performance evaluations and ability to obtain future contracts with DEP.

- E. DEP requires a drug and alcohol free, healthful, safe and secure work environment. Contractor employees will report to work in an appropriate mental and physical condition for work. DEP reserves the right to require any Contractor or Subcontractor employee to submit to drug testing when cause for reasonable suspicion of a violation of this policy exists. Drug testing may occur when: a) there is reasonable suspicion that an employee is under the influence of alcohol or illegal drugs, or b) an employee has been in involved in an Incident, or involved in an unsafe practice, or c) as required by BWS EHS Standards. The Contractor must prohibit any employee from being under the influence of any illegal drug or alcohol while at work, on duty, or operating a vehicle or construction equipment.
- F. The Contractor shall implement an EHS Management Program which includes qualified Safety Professionals (SPs) and Environmental Professionals (EPs), collectively referred to as EHS Professionals, along with project management staff, with appropriate competencies to provide EHS direction, guidance, and oversight of all aspects of the performance of the Contract's detailed scope of Work.
- G. The Contractor shall ensure that its EHS Resources have appropriate authority to execute their duties and responsibilities as set forth in this Section and under the Contractor's EHS Management Program.
- H. The Contractor shall arrange for additional approved EHS Resources to be available during EHS staff absences. The Contractor must inform the Engineer, in writing, of anticipated absences.

I. Contractor EHS Resources:

- 1. At a minimum, the Contractor shall provide the EHS Resources described below. The Contractor is required as part of its EHS Management Program to identify any EHS Resources necessary beyond the listed minimums.
- 2. For all contracts that employ 100 or less employees on site at any time, the Contractor shall have at least one full-time site EHS Rep. The Contractor may submit a request in writing to the Engineer to waive the requirement of a separate EHS Rep at each site and permit other Contractor employees who are Qualified Individuals to monitor the EHS activities of the employees and to assume all of the responsibilities of the full-time site EHS Rep, if it can show that one EHS Rep can effectively manage multiple sites. The EHS Rep(s) shall have no other duties except those related to EHS on the Contract, and shall not be the project manager, engineer, superintendent or have any other title or project role other than EHS Rep.
- 3. For all contracts that employ over 100 employees on site at any time, the Contractor shall have at least two full time EHS Reps. These EHS Reps

- shall have no other duties except those related to EHS on the Contract, and shall not be project managers, engineers, superintendents or have any other title or project role other than EHS Rep.
- 4. The Contractor may submit a request in writing to the Engineer to waive the requirements of this Section and permit other Contractor employees who are Qualified Individuals to monitor the EHS activities of the employees on site and to assume all of the responsibilities of the full-time EHS Rep.
- 5. The Contractor shall ensure that Subcontractors who consistently employ over 100 employees for more than two weeks at a time under the Contract shall have one full-time site EHS Rep. This EHS Rep shall have no other duties except those related to EHS on the Contract and shall not be the Project Manager, Engineer, superintendent or have any other title or project role other than as the Subcontractor's EHS Rep.
- 6. If the Contract has more than one location, each location shall be treated as a separate contract for purposes of determining the number(s) of necessary EHS Reps in accordance with paragraphs 2 through 4 above.
- 7. The Contractor's EHS staff shall be provided an appropriate office on the Project Site to maintain and keep available EHS records, up-to-date copies of all pertinent EHS laws, rules, regulations and governing legislation, material safety data sheets, and the EHASP.
- J. All site workers have the right to refuse unsafe work which is reasonably believed to present imminent danger to their own safety or the safety of others, the public or the environment, or to City property, without adverse consequences.
- K. The Contractor and its Subcontractors shall stop Work and initiate immediate corrective action whenever a Work procedure or a condition at the work site is deemed unsafe by the EHS staff, DEP, Competent Persons, or the Engineer. All Contractor and Subcontractor employees working on site shall report any unsafe or noncompliant work condition(s) immediately to the EHS staff, Competent Persons, or the Engineer. If a stop Work order is issued to the Contractor by the Engineer for unsatisfactory EHS performance, the Contractor shall not make any claim against the City for any losses associated with the stop work order.
- L. The Contractor and all Subcontractors are responsible for daily cleanup of their immediate Work areas in accordance with BWS's Housekeeping Standard. Construction scrap and debris shall be removed daily during the course of construction, alterations and repairs. Contractor refuse shall not be allowed to accumulate so as to create trip hazards or block access routes and pathways. The Contractor shall implement procedures to ensure a high standard of housekeeping. All waste shall be disposed of in accordance with the appropriate regulations and applicable Specifications.
- M. The Contractor shall ensure that any sand, soil, plaster, cement, mortar or the like is not deposited or washed into any drain or sewer unless specifically authorized under required permits.

1.06 ENVIRONMENTAL HEALTH AND SAFETY PLAN (EHASP)

A. The Contractor shall have a written EHASP prepared and signed by the EHS Professional in accordance with the BWS EHASP Standard. The EHASP must be signed by a principal or senior manager of the company and project management staff. The EHASP shall be submitted to BWS for review and approval prior to the start of any work. JHAs will be developed as the Work progresses, in accordance with the BWS JHA Standard, and will supplement the Contractor's EHASP.

1.07 EMERGENCY ACTION PLAN (EAP)

- A. The Contractor shall work with the Construction Manager and Other Contractors to develop a single cohesive construction EAP in accordance with BWS's EAP Standard.
 - 1. The Contractor is responsible for providing or supplementing the facility's existing, emergency alarm/siren/annunciation system to ensure that all Contractor personnel will be adequately notified of an alarm condition or required/test evacuation.
 - 2. The Contractor is responsible for evaluating and ensuring that all identified emergency resources are adequate and appropriate for the potential rescues/emergencies needed.

1.08 SPILL PREVENTION PROGRAM (SPP)

- A. The Contractor shall establish a Spill Prevention Program (SPP) for the prevention of releases of petroleum, hazardous substances or other pollutants. The SPP shall be included in the EHASP, and include awareness training for all personnel on measures designed to reduce, minimize and eliminate the potential for releases.
- B. The Contractor shall establish sound work practices and implement appropriate measures to achieve release prevention and control of releases when they do occur.
- C. At a minimum, the Contractor shall include within the SPP the following:
 - 1. Proper materials handling, labeling and container storage inspection practices for all products including hazardous and universal waste.
 - 2. All petroleum products, hazardous substances, or chemicals must be stored in designated areas and include secondary containment (with capacity to contain 110% of largest container) for all closed containers with a capacity greater than 5 gallons. Open containers of petroleum products, hazardous substances, or chemicals must be stored on secondary containment at all times.
 - 3. Follow manufacturer recommended preventive Maintenance Procedures (MPs) and where none exist, develop in-house equipment specific MPs.
 - 4. Inspection for and purging of residual materials in piping, tanks and other equipment prior to disassembly, demolition and disposal.

- 5. Supervision of fuel and chemical deliveries. These deliveries shall only be permitted during normal Project work hours or as otherwise approved by the Engineer.
- 6. The SPP shall include a detailed summary of anticipated petroleum and chemical storage. The information shall include capacity, contents, description and secondary containment provided.
- D. The Contractor shall bear sole responsibility for all costs and delays resulting from any releases on the Project which occur as a result of the work activities.

1.09 QUALITY ASSURANCE

A. Qualifications

- 1. The Contractor shall ensure that, at all times, its employees and those of its Subcontractors have received OSHA 10-Hour Construction training or OSHA 30-Hour training within the last five (5) years.
- 2. The EHS Professional(s) shall possess a combination of safety and environmental skills as needed to manage the EHS hazards and issues presented by this Project. The EHS Professional may be one or more persons meeting the individual qualifications for Safety and Environmental Professionals as detailed below.
- 3. Safety Professional (SP): Persons recognized as a Safety Professional shall, at a minimum, possess the following education and experience:
 - a. Certification as a Certified Safety Professional granted by the Board of Certified Safety Professionals and five (5) years of documented professional construction EHS management experience; or
 - b. Certification as a Certified Industrial Hygienist granted by the American Board of Industrial Hygiene and five (5) years of documented professional construction EHS management experience; or
 - c. A Bachelor of Science degree in safety, industrial hygiene, occupational safety and health, environmental health and science, or related field and ten (10) years of documented professional construction EHS management experience.
 - d. All documented professional EHS management experience must be in the types of construction and conditions expected to be encountered on the site.
 - e. For projects that require hazardous waste remediation or response, the SP is also required to have successfully completed a forty-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training course.

- 4. Environmental Professional (EP): Persons recognized as an Environmental Professional shall, at a minimum, possess the following education and experience:
 - a. A Bachelor's degree in environmental science, environmental engineering or other related engineering or science field and ten (10) years of documented professional environmental field, management and/or engineering experience. All documented professional environmental experience must be in the types of construction and conditions expected to be encountered under this Contract.
 - b. The EP's knowledge and experience should include, but not be limited to, management and disposal of solid and hazardous waste, universal waste, hazardous materials management, chemical and petroleum bulk storage, used oil, chemical and petroleum spill control plans, lead/mercury/PCB and asbestos remediation and management, storm water and soil management, and environmental permit management.
- 5. EHS Rep: Qualifications of the EHS Rep(s) shall include a minimum of: ten years of relevant construction experience, five years of which were exclusively in construction EHS management and successful completion of the following training courses:
 - a. BWS EHS Standards;
 - b. Thirty-hour OSHA construction safety and health training;
 - c. For projects that require hazardous waste remediation or response, forty-hour HAZWOPER training;
 - d. Resource Conservation Recovery Act/DOT hazardous waste/manifesting training
 - e. Permit- required confined space;
 - f. BWS spill prevention and control;
 - g. Control of hazardous energy sources (lockout/tagout);
- 6. The EHS Professional and EHS Rep shall have extensive experience with hazard identification, evaluation and controls, and be knowledgeable of all applicable EHS requirements set forth by governing laws, rules and regulations as well as Best Management Practices. Where gaps in the training or experience are identified, DEP may require additional experience or training for approval.

1.10 SUBMITTALS

A. The Contractor shall submit the draft EHASP to the Engineer for review and approval within thirty business days from issuance of the Notice to Proceed. In no case shall Work be allowed to commence without an approved EHASP.

- 1. Initial submission of the EHASP shall be provided as one hard copy and one electronic copy (either Word or Acrobat format) to the Engineer.
- 2. The EHASP submittal shall be reviewed and comments shall be provided to the Contractor upon completion of the review.
 - a. The Contractor shall work with the Engineer to address all comments in order to obtain EHASP approval.
- 3. Upon receipt of final approval, the Contractor shall provide one hard copy and one electronic copy (either Word or Acrobat format) of the EHASP to the Engineer.
- B. The EHASP shall be available to all of the Contractor's employees working on the Contract.
- C. Review, acceptance and/or approval of the EHASP will not impose responsibility for the EHASP on any other party, nor will it relieve the Contractor from any of its EHS responsibilities.
- D. The Contractor shall submit to BWS EHS for approval, the names of the EHS Professional and EHS Rep(s) to be employed. BWS EHS may request and conduct an interview of the candidates prior to approval. The Contractor shall submit the resumes, copies of certifications, a signed certification of employee training, along with other qualifications of the EHS Professional and EHS Rep. The resumes shall include items such as: experience, education, EHS courses completed, safety and environmental conferences attended, and certifications achieved. Documentation and/or personal references confirming the qualifications may also be required. The DEP may reject persons proposed as EHS Professionals or EHS Reps for failure to have adequate qualifications or for other cause at any point prior to and during the Contract period, as determined by the Engineer.
- E. The Contractor shall adhere to the requirements of BWS Incident and Near Miss Reporting and Investigation Standard and shall immediately notify the Engineer of all Incidents involving employee injury and illness, and any other work-related Incidents or Near Misses, damage to equipment and structures, releases or adverse impacts to the environment, or other conditions as defined in the Standard.
- F. The Contractor must notify the Engineer and BWS EHS immediately of any regulatory inspections, notices of citations and penalties, Notices of Violation (NOVs), or any other outside agency violations. In addition, the Contractor shall furnish to the Engineer a copy of all correspondence from OSHA, NYSDEC, the Department of Buildings (DOB) or any other government regulatory agency, within one day of receipt, which may include, but are not limited to, employee complaints, notices of citations and penalties, environmental and NOVs. The Contractor must close out all NOVs and provide documentation to the Engineer that the NOV is closed/corrected as a condition precedent to obtaining final payment.
- G. The Contractor will forward to the Engineer any risk control reports generated by its insurance carrier or broker within one day of receipt.

H. Monthly Contractor EHS Report

- 1. The Contractor shall submit, on or before the 10th day of each month, a summary report of EHS activity for the prior month, including, but not limited to:
 - a. EHS metrics reported on the metrics reporting form provided as part of the pre-construction package and as may be updated throughout the life of the Project.
 - b. Chemical Inventory with HTSL (Hazardous and Toxic Substance List) and Subpart Z List.
 - c. Local Law 77 and DEP Bureau of Environmental Compliance air permits.
 - d. Summary of audit data including trending and analysis along with root cause and corrective actions/training identified.
 - e. Summary of the regulatory inspections, notices of citations and penalties, NOVs, or any other outside agency violations (which occurred and were provided to BWS in accordance with this Section).
- 2. The Engineer shall review the report to verify that the Contractor is effectively managing the EHS requirements under the Contract. If the Contractor has no, or limited Work in a given month, it shall inform the Engineer that no Work was performed or submit the required documentation for those days that Work was performed.

I. Performance Evaluations

- 1. The Contractor, in conjunction with its Subcontractors, shall be evaluated semi-annually on their performance in implementing the Work of this Contract in accordance with this Section and all related EHS specifications, rules, regulations, laws, policies and procedures. The evaluations are based on the criteria established in DEP's Contractor Selection and Management Policy.
- 2. In conjunction with the Contractor evaluation form, the EHS Professional and EHS Rep will be evaluated by BWS EHS and these shall be included in the evaluations.
- 3. Any EHS Professional or EHS Rep who knowingly falsifies any data, result, audit, document, etc. will be removed from the Project and precluded from further DEP Work.

PART 2 PRODUCTS

2.01 EHS EQUIPMENT

- A. The Contractor shall provide the proper EHS and rescue equipment for all employees, adequately maintained and readily available, for any foreseeable contingency or situation under the Contract during the performance of the Work.
- B. All equipment shall be stored in protected areas and maintained and calibrated as per the manufacturer's recommendations and as specified in the EHASP. Where equipment is required to be inspected and or calibrated, documentation shall be maintained and available for review.

2.02 PERSONAL PROTECTIVE EQUIPMENT

A. All personnel employed by the Contractor and any visitors entering the job site shall be required to wear appropriate personal protective equipment (PPE) required as specified in the EHASP and the BWS EHS PPE Standard. The Contractor shall continuously provide and maintain adequate PPE.

PART 3 EXECUTION

3.01 EHS STAFF DUTIES

- A. The Contractor's EHS staff is responsible for overseeing and managing the Contractor's safe and environmentally compliant performance of all Work.
- B. EHS Professionals shall be required to initiate, review and implement measures to ensure the health and safety of all Contractor employees, and to protect property and the environment. Each EHS Professional is required to visit the Site and audit the Site conditions in accordance with the Contractor's EHS Management Program or as directed by the Engineer.
- C. The EHS Professional will be held accountable to adjust his/her workload to enable proper performance of all of their EHS responsibilities in accordance with all requirements of this Section and all applicable regulations. DEP may request that the Contractor remove the EHS Professional for not meeting the Contract requirements.
- D. The EHS Professional shall visit the Site prior to developing the Contractor's EHASP. The EHS Professional will arrange a visit with the Engineer and perform an inspection of the Site to understand the full scope of Work to be performed under the Contract. Contract Documents relevant to writing the EHASP can be reviewed and obtained at this time. Facility/Site specific information must be provided, reviewed, and documented in accordance with the BWS EHS Site Orientation Standard.
- E. The EHS Professional shall visit all Work areas as frequently as necessary, but no less frequently than monthly, to verify that EHS compliance is being achieved. The

EHS Professional shall review hazards, JHAs, and the foremen's and superintendent's preparation and communication of JHAs to workers. The EHS Professional shall review the Project team's compliance with and adherence to EHS requirements, as well as their proactive approach and planning for EHS.

- F. The EHS Professional shall be available for consultation whenever necessary. Prior to and after each visit, the EHS Professional shall sign the visitors' log maintained at the Engineer's office.
- G. The EHS Professional is expected to perform their inspections in concert with the EHS Rep, during which time the EHS Professional will not only inspect the Site, but shall also mentor and direct the EHS Rep. During the inspection, the EHS Professional will evaluate the Contractor and each subcontractor working under the Contract and clearly identify findings and who they are assigned to, using the EHS Professional checklist provided in the EHASP. Any findings that cannot be resolved immediately will be assigned to the EHS Rep for follow-up. The EHS Professional is expected to communicate with the EHS Rep to ensure all identified findings are closed out. The EHS Professional's inspection shall include programmatic issues such as adhering to the Contractor's EHS program, including, but not limited to, preparing and communicating JHAs and proactively minimizing EHS risks.
- H. The EHS Rep will coordinate with the EHS Professional when questions arise requiring the EHS Professional's expertise. After each visit, the EHS Professional shall prepare a report, including photographs (where necessary), acceptable to the Engineer and BWS EHS, detailing the findings. The report shall include those hazards and violations discovered during the site visit and when and how they were or will be closed out. Any EHS items not covered or documented by the inspection checklist will be noted in the comments section of the checklist. The report shall be submitted to the Engineer within one business day of the Site visit.
- I. The EHS Rep shall be at the job Site full time whenever work is in progress during all shifts.
- J. The EHS Professional's and EHS Rep's responsibilities are as follows:
 - 1. The EHS Professional is responsible for directing the Contractor's EHS program, ensuring implementation by the Contractor and all Subcontractors, and for directing and monitoring all activities of the EHS Rep. If the EHS Rep is not enforcing the EHASP, the EHS Professional shall either recommend retraining or removal of the EHS Rep from the Project by submitting a letter to the Engineer and the Contractor.
 - 2. The EHS Rep must review JHAs to verify that the Work activity's EHS issues and hazards are accurately identified, addressed, and communicated. JHAs shall be regularly communicated to affected employees and must be made available in the areas where the affected employees are working. The

EHS Professional is responsible for periodically reviewing JHAs to verify that they adequately reflect the recognized hazards and controls of the tasks being performed. JHAs shall be provided to the Engineer or BWS EHS when requested.

- 3. Both the EHS Professional and the EHS Rep shall schedule and conduct EHS meetings and training programs as required. A specific schedule of these meetings and an outline of topics to be covered shall be provided with the EHASP. The Engineer shall be advised in advance of the time and place of such meetings, and DEP personnel shall be invited to attend the meetings.
- 4. All Contractor employees shall be instructed by the EHS Professional and the EHS Rep on the recognition of hazards, safe Work practices and environmental precautions, the contents of the EHASP, and the use of environmental, personal protective and emergency equipment. Such training shall be documented, recorded, and provided as part of the EHS monthly report(s). EHS Reps and EHS Professionals will attend regularly scheduled meetings held by the Engineer and BWS EHS including the EHS Pre-Construction Meeting.
- 5. Determine that operators of specific equipment are qualified by training, certification and/or experience before they are allowed to operate such equipment. Ensure documentation of licenses, certifications and training by the appropriate agencies(for example OSHA, NYC DOB, NYC Fire Department, etc.) are on site and current, prior to start of Work.
- 6. Verify implementation of the BWS Emergency Action Plan (EAP) Standard.
- 7. Develop an effective Site communication plan that includes, signage, and verbal and written communication of EHS issues and notices.
- 8. Post all appropriate notices regarding EHS regulations at Site location(s) which afford maximum exposure to all personnel at the job Site.
- 9. Post appropriate instructions and warning signs regarding all hazardous areas or conditions which cannot be eliminated. Identification of these areas shall be based on experience, site surveillance, and severity of hazard. Such signs shall not be used in place of appropriate workplace controls.
- 10. The EHS Rep is to conduct EHS inspections a minimum of twice per shift to ensure that all machines, tools and equipment are in a safe operating condition, and that all Work areas are free of safety and environmental hazards. The EHS Rep shall take necessary and immediate corrective actions, where feasible, to eliminate all unsafe acts and/or conditions, and

submit to the Engineer each day a copy of the findings on the inspection check list report forms established in the EHASP. Detailed checklists will be tailored to the EHS hazards and conditions on the Site, and will include a comments section to include findings not specifically listed on the checklist.

- 11. Whenever DEP and its agents perform both announced and unannounced inspections of the Contractor's EHS performance, a member of the Contractor's on-site EHS team shall be available during the inspections. The EHS Professional will coordinate inspections with the Engineer and DEP inspectors upon request. The Contractor shall take immediate corrective action, where feasible, to eliminate hazards identified by the Engineer, DEP inspectors, or any other entity. The Contractor, if requested, shall develop and implement a plan detailing corrective actions necessary to mitigate the presence of noncompliant conditions and actions following Incidents, citations, NOVs, or identification of patterns of noncompliant conditions and acts.
- 12. Notify the Engineer and BWS EHS immediately of all inspections by regulatory agencies, and submit to the Engineer and BWS EHS copies of all EHS reports, citations, and NOVs from regulatory agencies and insurance companies within one workday of receipt.
- 13. Implement an effective fire protection and prevention program at the Site throughout all phases of the construction Work in accordance with BWS's Fire Prevention Standard. The Contractor will ensure the availability of fire protection and suppression equipment adequate to control the degree of fire hazard encountered during construction.
- 14. Provide and document appropriate Site-specific orientation to Contractor employees, visitors, and Subcontractors communicating recognized hazards present at and surrounding the Site(s) and facility in accordance with BWS's Site Orientation Standard and DEP's Contractor Selection and Management Policy.
- 15. Perform all tasks and responsibilities as identified in the EHASP.

3.02 EPCRA AND RELATED HAZARDOUS MATERIAL REGULATIONS

A. The Contractor shall maintain a monthly inventory of hazardous substances or extremely hazardous substances used or stored on Site in accordance with the BWS-provided chemical inventory form. Documentation shall be maintained on Site and available for review.

- B. The Contractor shall prepare and provide to the Engineer a Right to Know (RTK)/Emergency Planning and Community Right to Know Act (EPCRA) Annual Chemical Inventory Form for all hazardous and extremely hazardous substances that the Contractor used or stored during the previous calendar year. This shall be provided by January 15th of each year.
- C. In addition to any requirements of the New York City Standard Construction Contract, in order to obtain Final Acceptance, the Contractor must satisfy all EPCRA reporting requirements for the final year of the Contract.

3.03 HOT WORK

- A. The performance of Hot Work is prohibited unless performed under the issuance of a Hot Work permit from the Permit Authorizing Individual (PAI). The PAI shall be provided by the DEP.
 - 1. Where the DEP and Engineer are not routinely present, the Contractor may obtain PAI certification for Contract employees.
- B. The Contractor shall provide the Engineer with a JHA at least 48 hours prior to the performance of Hot Work. The JHA shall identify the following:
 - 1. The locations where the Work is to performed;
 - 2. Equipment to be used;
 - 3. Gases or vapors within or adjacent to the location that have the potential to create a combustible atmosphere;
 - 4. Controls required to mitigate or prevent the accumulation of gases or vapors in quantities that have the potential to create a combustible atmosphere; and
 - 5. Controls or methods to promptly discontinue the use of and de-energize equipment when a combustible atmosphere is detected.

3.04 VISITORS

A. Allowing visitors and members of the public to tour an active construction site is discouraged due to the potential exposures to hazardous conditions and materials associated with construction Work. However, where necessary, approved and authorized visitors of the Contractor, Subcontractors, or any other authorized agency, department, or other entity associated with the Contractor shall sign in at both the DEP/Contractor Security Booth and the Visitors' Log maintained at the Contractor's Site office. Visitors are required to receive Site orientation training, comply with all provisions of the EHASP, wear proper and appropriate PPE and be escorted at all times. All efforts should be made not to schedule site tours/visits at the time of the scheduled evacuation drills. Visitors must not be exposed to construction hazards without prior training with respect to those construction hazards.

3.05 ATTACHMENTS

- A. Exhibit A Standard Environmental, Health and Safety Specifications
- B. Exhibit B Bidder's EHS Performance and Program Review Questionnaire

END OF SECTION