

APPENDIX C

NJDEP CSRR Remedial Investigation and Design Services Term Contract T2621
Bid Solicitation 26DPP01289

PROGRAMMATIC HEALTH AND SAFETY PLAN (HASP) MINIMUM REQUIREMENTS

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1.0 GENERAL

1.1 DESCRIPTION OF SCOPE

- A. Hazardous waste/substances emergency response
Prior to being engaged for any work to be performed at any hazardous waste/substances site, or incident as defined within the meaning of 29 CFR 1910.120, the Contractor shall submit a Health and Safety Plan (HASP) to the New Jersey Department of Environmental Protection (NJDEP). The HASP must receive NJDEP approval before a notice to proceed with any site, or response work will be granted.
- B. Minimum requirements
This document describes the minimum safety, health, and emergency response requirements for remedial activities at the site. The responsibility for development, implementation, and enforcement of the HASP lies with the Contractor and its health and safety personnel. The HASP developed by the Contractor shall include programs for accident prevention, personnel protection, medical surveillance, training, and special and permit operations, excavation and trenching, spill containment, emergency responses and contingency planning, and air monitoring.
- C. Compliance and termination
Safety and health requirements shall conform to 29 CFR 1910.120, other federal and state codes and statutes as identified by the text of this document. Controls and procedures specified herein and by the HASP may be terminated only when a Certified Industrial Hygienist, or other qualified person, determines that hazards have been eliminated. Such termination shall be effective only if approved in writing by the NJDEP.

1.2 SITE/INCIDENT DESCRIPTION

- A. Specific location
The site's, or incident's physical street address, Lot #, Block #, description includes physical location and/or, facilities or vehicles involved, where response/remedial work will be conducted (roads with nearest cross streets, property address, buildings, containers, water bodies, transporter units, pipelines etc.) under this contract.
- B. Supplements and additions
The site, or incident location, may be further described in supplementary sections. Additional details provided (i.e. maps, scaled drawings, photographs, etc.) should be referenced and presented in listed subsections.
- C. Description of emergency

A short description of the type of environmental or public health related emergency (i.e. release due to train derailment, vessel/container failure, transportation accident, etc.) shall be documented.

D. Site history

A short history of the site prior to the contracted operations should be presented, indicating industrial/hazardous activities.

1.3 SUBMITTALS

A. Contractor submissions shall include:

1. The Contractor shall submit one (1) printed copy of the HASP and electronic copies in Microsoft Word and portable document format (PDF)
2. Electronic copies of analytical results from any area or personnel samples collected that are specified in the subsections.
3. The Contractor shall submit printed copies of the daily air monitoring logs on a weekly basis.

B. Health and Safety Plan (HASP) Approval

1. Review and approval of the Program, or Generic HASP shall be the responsibility of the NJDEP Office of Site Safety and Health (OSSH).
2. The OSSH shall provide back to the Contractor, through the NJDEP contract manager or other authorized personnel a written evaluation of the submitted HASP. Evaluation of the HASP shall be performed by comparison to the minimum requirements presented in this document and applicable State and Federal statutes.
3. A Site/Incident-Specific HASP shall be completed based on the best information available regarding the emergency and anticipated response at the time by the contractor and submitted to the NJDEP OSC.

2.0 MINIMUM REQUIREMENTS

2.1 ORGANIZATIONAL RESPONSIBILITIES

A. Key personnel and organizational chart

The Contractor must provide, at a minimum, an organizational chart depicting the chain of command with responsibilities and resumes of key personnel involved in response operations. Also, the contractor must submit the names of other personnel needed for hazardous waste/substance operations and emergency response, indicating their functions and responsibilities. This chart must include: Senior-Level Management, Project Manager, Health and Safety Officer (HSO), Field Supervisor, and on-site Foreman Personnel, at a minimum

B. Site Health and Safety Officer (HSO)

The Contractor must utilize a qualified individual (e.g., a certified industrial hygienist, safety engineer, certified hazardous materials manager, etc.) to function as the Site HSO for the project. That individual must be responsible to the Contractor and have the authority and knowledge necessary to implement the HASP and verify compliance with applicable safety and health requirements.

1. At a minimum, the HSO shall have the following responsibilities and authority to perform the following functions:
 - a. Be on-site and present at all times during site operations.
 - b. Have the authority to enforce the HASP and stop operations if the safety and health of personnel at the site, or surrounding population, may be jeopardized.
 - c. Effect evacuation of the site or work area and notify appropriate response agencies and authorities if necessary.

- d. Evaluate and interpret monitoring data to make field decisions regarding safety and health.
- 2. If an alternate HSO is named, he/she must meet the same requirements as the primary HSO.
 - a. The HSO must meet the following minimum educational and experience and, or qualifications in matters of health and safety:
 - a. Possess a sound working knowledge of all State and Federal occupational safety and health regulations;
 - b. Have formal professional development training in occupational safety and health. Initial 40 Hour (or 24 hour) HAZWOPER, or any other basic training necessary for general work eligibility does not satisfy this requirement;
 - c. Satisfy either 3a or 3b;
 - d. Have a minimum of five (5) years experience in the environmental and health and safety services field, chemical industry, or hazardous waste/substances response operations field, more than 50% of which must be in the area of industrial hygiene and/or environmental health and safety related to response operations.
 - e. Possess a bachelor of science degree from an accredited college or university in biology, chemistry, engineering, industrial hygiene or other related natural, or physical science and one (1) year of experience in the environmental and health and safety services field, chemical industry, or hazardous waste/substances response field, more than 50% of which must be in the area of industrial hygiene and/or environmental safety related to the site or hazardous waste/substances response.
 - f. NOTE: A graduate degree from an accredited college or university in occupational safety and health can be substituted for 3a or 3b.

2.2 RISK OR HAZARD ANALYSIS

- A. Health and safety evaluation

The Contractor shall perform and provide a hazard assessment for each location and the tasks to be performed.
- B. The assessment shall be based upon the best information available regarding the contaminants and conditions present at the site, or incident, as well as the practices, tools, and other equipment to be applied in the operation and shall include but not be limited to the following:
 - 1. A preliminary evaluation of the site's characteristics performed prior to the initial site survey;
 - 2. An evaluation of the known, or suspected, contaminants and conditions that may pose an exposure risk by the following pathways: inhalation, skin absorption/contact, ingestion or injection;
 - 3. An evaluation of the known, or suspected substances/contaminants that if present, may result in hazardous conditions (i.e., incompatible materials, flammable materials, explosive materials, water reactive materials, etc..) at the site.
 - 4. Safety data sheets and/or NJDHSS Hazardous Substance Fact Sheets shall be provided on site for any chemicals known to be present and to which workers may be exposed during normal operations or in a foreseeable emergency. These may be provided using an electronic format or other digital media;
 - 5. An evaluation of known or potential safety hazards associated with each task to be performed, and a description of the appropriate engineering and work place practices and Personal Protective Equipment (PPE) required to reduce or eliminate the associated risk. (i.e., Wearing a personal flotation device when working on water);

6. An overview of the following information:
 - a. Size and location of the site;
 - b. Description of the operation and tasks to be performed;
 - c. Approximate duration of each operation and task;
 - d. Site topography, accessibility and special features (e.g., structures, tanks);
 - e. Known or suspected pathways of contaminant dispersion pertinent to the operations and tasks performed;
 - f. Safety and health hazards expected on the site; and
 - g. Status and capabilities of emergency response teams that provide assistance during site emergencies, including those providing medical treatment and transport of any contaminated injured persons.

2.3 EMPLOYEE TRAINING

- A. Training requirements for on-site personnel
 1. Pursuant to 29 CFR 1910.120, et al, all Contractor and subcontractor employees for on-site activities must meet one of the following requirements prior to the start of operations at the site:
 - a. General site, or response workers (such as equipment operators, general laborers, and supervisory personnel) engaged in hazardous substance removal, or other activities that expose or potentially expose workers to hazardous substances and health hazards, shall receive a minimum of 40 hours of instruction off the site, and a minimum of three (3) days actual field experience under the direct supervision of a trained, experienced supervisor;
 - b. Workers on site only occasionally for a specific limited task (such as, but not limited to, groundwater monitoring, land surveying, or geophysical surveying) and who are unlikely to be exposed over permissible exposure limits and published exposure limits shall receive a minimum of 24 hours of instruction off the site, and a minimum of one day actual field experience under the direct supervision of a trained, experienced supervisor;
 - c. Workers regularly on site, who work in areas that have been monitored and are fully characterized indicating that exposures are under permissible exposure limits and published exposure limits where respirators are not necessary, and the characterization indicates that there are no health hazards or the possibility of an emergency developing, shall receive a minimum of 24 hours of instruction off the site and a minimum of one day actual field experience under the direct supervision of a trained, experienced supervisor;
 - d. Workers with above 24 hours of training who become general site workers, or who are required to wear respirators, shall have the additional 16 hours and two (2) days of training necessary to equal the training specified in paragraph 2.3.A.1.a; and
 - e. In addition, an annual eight (8) hour refresher course after the initial training shall be provided to all field personnel to retain on-site employment eligibility.
 2. On-site management and supervisors directly responsible for or who supervise employees engaged in site operations, including the on-site HSO, shall have also received eight (8) hours additional training in managing such site operations prior to the start of site activities as stipulated in 29 CFR 1910.120.
 3. Employees who have been designated as responsible for responding to on-site emergencies shall have received additional training in how to respond to such expected emergencies prior to the start of site operations as stipulated in 29 CFR 1910.120.

4. Employees who have not received the required training prior to the start of site operations are not to engage in site operations until such training has been completed and documentation submitted to the Department.
- B. Employee training program
The contractor shall include in the HASP a summary of the hazardous materials safety and health training program and a list of elements and topics covered.
- C. Program certification
A written certification statement shall be incorporated into the HASP identifying the completed training and/or acquired experience for all employees designated to engage in on-site activities. Such certification shall be endorsed by a member of top-level management, a corporate officer, or the health and safety program manager.
- D. Site specific training and pre-entry briefings
The Contractor shall provide site-specific training and perform daily safety briefings that will provide an awareness of planned operations, the site-specific HASP, the form and warning properties of potential hazards, work zones, locations of emergency/safety equipment, local emergency response procedures and any changes in site characteristics, levels of protection, communications, decontamination procedures, emergency facilities and signals, and evacuation procedures.

2.4 PERSONNEL PROTECTION

- A. Engineering and work practice controls
The Contractor must consider the need to apply engineering and/or work practice controls as a means of protecting personnel in the performance of site-specific tasks. When practicable, engineering controls shall be implemented to reduce and maintain employee exposures to or below safe levels for those tasks demonstrating known or suspected hazards. Work practice controls shall next be applied when engineering controls are impractical and shall be incorporated as site-specific standard operating procedures (SOPs) for personnel precautions and routine operations.
- B. Personnel Protective Equipment (PPE) and levels of protection
 1. The Contractor shall use PPE only when engineering and/or work practice controls have been deemed impractical or insufficient to protect employees during site operations;
 2. The Contractor shall select PPE based on an evaluation of performance characteristics, site-specific tasks, and known or suspected hazards and shall assemble the PPE into Levels of Protection (LOP) or ensembles appropriate for the site;
 3. The Contractor shall include in the HASP a list of components for each protective ensemble, the LOP selected for each task, the rationale for each task-specific selection, and any contaminant action levels to be followed in LOP decision making. This information can be presented in a block-type chart with specific references to fabric, LOP, permeation, etc., in the text. The specific tasks requiring identification of protective clothing ensembles shall include, but not be limited to:
 - a. Debris and waste removal;
 - b. Recovery, injection, and monitoring well construction;
 - c. Excavation and trenching;
 - d. Contaminated soil removal;
 - e. Sampling and monitoring;
 - f. Dewatering;
 - g. Erosion and sediment control;
 - h. Operating specialized equipment, including containers; and
 - i. Confined space and hazardous area entry.
 - j. Hazardous Waste/Substance Emergency Response Cleanup Operations

4. If the Contractor's HASP provides for respiratory protection, the Contractor shall include a description of the respiratory protection program and the method of respirator fit testing employed.
5. The Contractor shall use only NIOSH/DHSS approved respiratory protective equipment. Any other PPE selected shall be in conformance with appropriate ANSI standards for that equipment.
6. The Contractor shall establish a PPE program addressing the following elements:
 - a. Site hazards;
 - b. PPE selection;
 - c. PPE use and limitations;
 - d. Duration of site operations;
 - e. PPE maintenance and storage;
 - f. PPE decontamination and NJDEP approved disposal;
 - g. PPE training and proper fit;
 - h. Donning and doffing procedures;
 - i. PPE inspection prior to, during, and after use;
 - j. Evaluation of program effectiveness; and
 - l. Heat stress and temperature limitations.

2.5 MEDICAL SURVEILLANCE

- A. Medical surveillance program
 1. The Contractor shall establish, implement and maintain a medical surveillance program (MSP) for employees engaged in on-site operations, if any of the following 29 CFR 1910.120(b) criteria are met:
 - a. All employees who are, or may be, exposed to hazardous substances, or health hazards, at or above the permissible exposure limits, or if there is no permissible exposure limit, above the published exposure levels for these substances, without regard to the use of respirators, for 30 days or more per year;
 - b. All employees who wear a respirator for 30 days or more a year or as required by 29 CFR 1910.134/139;
 - c. All employees who are injured due to overexposure from an emergency incident involving hazardous substances or health hazards; or
 - d. Members of HAZMAT teams.
 2. The MSP program shall include physical examinations administered or supervised by a board-certified physician knowledgeable in internal or occupational medicine. The Contractor shall include the name and business address of the administering physician in the HASP.
 3. The Contractor shall include a written description of the components of both the MSP program and the physical examination in the HASP and whether the examination is administered or supervised by the physician.
 4. The Contractor shall address the need for personnel exposure monitoring and post-exposure medical screening in the HASP and include a description of those provisions.
 5. The contractor shall provide to the employee, the physician's written opinion. The written opinion shall contain the attending physician's opinion as whether the employee has any detectable medical condition which would place the employee at increased risk of material impairment of the employee's health from work in hazardous waste operations or emergency response, or from respirator use.
 6. The physician's written opinion shall contain the physician's recommended limitations upon the employee's assigned work and the results of the medical examination and tests.

7. The contractor shall provide a statement that the employee has been informed by the physician of the results of the medical examination and any medical conditions which require further examination or treatment.
 8. The physician's written opinion obtained by the employer shall not reveal specific findings or diagnoses unrelated to occupational exposures.
- B. Medical records retention
- The Contractor shall retain all medical records and personnel exposure monitoring data for 30 years as described in Subpart C of 29 CFR 1910.120.
- C. Fitness certification
- The Contractor shall provide written certification of the medical fitness for work of all employees designated to engage in on-site operations prior to the start of those operations. A senior officer of the corporation's management shall endorse such certification and the endorsement shall be incorporated into the site HASP.
- D. Heat and cold stress monitoring
- As dictated by seasonal conditions, the Contractor shall implement an employee heat, and/or, cold stress-monitoring program during site operations and shall incorporate the program into the site HASP. The program shall include employee awareness of the signs and symptoms of heat and/or cold stress, preventive measures, and employee and/or environmental parameters that will be measured. The Contractor shall maintain a daily heat and/or cold stress log on all employees wearing protective ensembles on-site. The log shall be described in the HASP.

2.6 AIR SURVEILLANCE

- A. Site-specific monitoring shall be established and implemented to identify areas of elevated airborne contaminant concentrations and to determine the level of the concentrations relative to background. The Contractor shall provide the personnel, instruments, and materials necessary to perform such air monitoring and identify the individual responsible for administering the program. The air surveillance program shall be included in the HASP, which shall describe:
1. Type, make, and model of instrument(s) selected for use;
 2. All instrument settings for each instrument used;
 3. Method of instrument calibration, including calibrant and sample calibration data sheet;
 4. Method of field checks, including field check materials and record of checks;
 5. Manner and frequency of calibration and pre and post (or greater) field checks; and
 6. Frequency of air measurements and the tasks or locations to be monitored.
- B. Area and personnel air sampling
1. The Contractor shall examine and report to the NJDEP's satisfaction the need or lack thereof, to develop and implement area and personnel air sampling programs during the project, based upon adequate initial area and personnel air sampling episodes, and shall include any resultant air sampling program in the site HASP;
 2. Special considerations shall be given to intrusive or high-risk tasks and the potential for exposure to those performing such tasks;
 3. The Contractor shall provide all necessary sampling devices, pumps, collection media, and support equipment to perform the sampling per the program. The sampling devices and pumps must bear all approvals necessary for use in combustible or flammable atmospheres.
 4. The sampling devices, pumps, collection media, and any necessary support equipment shall be appropriately assembled into a sampling train, and each resultant sampling train shall be flow calibrated as a complete system before and after each day's use against a primary standard.
 5. The Contractor shall maintain a daily sampling record as part of the air sampling program. The record must include, as a minimum, the following:

- a. Collection date;
 - b. Sample identification number;
 - c. Location and/or task monitored;
 - d. Wind speed and direction during each sample collection period;
 - e. Duration of each sample collected, including the start and stop times of each sample;
 - f. Ambient temperature and humidity of sampling period;
 - g. Pre- and post sampling train flow rate checks;
 - h. Instrument readings, calibration, and field checks; and
 - i. Any pertinent comments.
- 6. The laboratory selected for sample analysis must be accredited by the AIHA for the analysis required. Sampling and analytical methods of first NIOSH, then OSHA, must be used preferentially when such methods are available for the samples collected and all appropriate QA and QC provisions regarding sample collection, transport, and holding times must be followed. Sampling and health and safety protocols are presented in the NJDEP's most current Field Sampling Procedures Manual.
- C. Records retention and data reporting
 - 1. The Contractor shall retain all personnel exposure sampling results and monitoring data in accordance with the requirements set forth in OSHA, Subpart C of 29 CFR 1910.120. The Contractor shall follow all other pertinent provisions of that regulation.
 - 2. The Contractor shall submit, in writing, the analytical results from any area and personnel samples collected within 30 working days of the collection of each sample. Sample flow rates in liters per minute (lpm) and sampling periods in minutes for each sample collected must be reported with the analytical results. Sample locations or tasks and identification numbers shall also be reported.
 - 3. The Contractor shall maintain a daily air monitoring log and include, as a minimum, the following information:
 - a. Monitoring date;
 - b. Location and/or task monitored;
 - c. Wind speed, direction, ambient temperature, and humidity;
 - d. Instruments used, including make and model and all instrument settings;
 - e. Instrument readings;
 - f. Pertinent comments or information;
 - g. Results of instrument calibration checks, including date and time of each check, the calibration agent used, and its concentration, for each instrument employed.
 - h. The frequency that air readings are required to be taken must be determined based on the incident or activities, monitoring may be required continuously at several locations and recorded at intervals down to every few minutes.
 - 4. The Contractor shall report verbally all data resulting from daily air monitoring to the NJDEP Representative, at a minimum, at the end of the work period. If at any time the instrumentation indicates an adverse change in conditions, the HSO must notify the NJDEP Representative immediately and follow up this reporting in writing by the close of business on that day.
 - 5. The Contractor shall furnish copies of the daily air monitoring log to the NJDEP Representative at a minimum, weekly, unless otherwise noted or arranged.

2.7 SITE CONTROL

- A. Routine requirements for ongoing operations

The Contractor and/or its designee will be required to meet with the on-site NJDEP Representative, when present, prior to the start of the day's activities to prepare all the necessary paperwork and

outline the day's activities. The Contractor shall also meet at the completion of the day's activities to discuss the work performed.

B. Control of work zones

1. The Contractor shall be responsible for conducting operations at the site in such a controlled fashion as to reduce the possibility of contact with any contaminants present and to prevent the removal of contaminants by personnel or equipment leaving the site. The Contractor shall delineate work zones in which specific operations or tasks will occur and shall institute specific site entry and decontamination procedures at designated control points.
2. Three (3) work zones that shall be established to perform work are an exclusion (contaminated) zone, a contamination reduction zone, and a support (clean) zone. A map or diagram showing the specific work zones and a description of the site control plan shall be included in the HASP. The work zone boundaries shall be revised as the work of removing hazardous materials proceeds to reflect the reduced area containing hazardous materials. The revised map or diagram shall be inserted in the HASP and provided to the NJDEP Representative upon adoption of each revision. The Contractor shall include any SOPs pertaining to site control in the HASP and shall incorporate plans for routine and emergency communications appropriate for the site and project.
3. The Contractor shall keep a daily site control log that shall include:
 - a. Personnel visiting the site;
 - b. Affiliation;
 - c. Date;
 - d. Arrival time;
 - e. Departure time; and
 - f. Purpose of visit and locations visited.
4. The Contractor shall provide the NJDEP Representative with a list of all Contractor and subcontractor personnel who are authorized to enter the site prior to the start of operations, updating the list as necessary. Authorized NJDEP personnel shall have unlimited access to the site. The Contractor shall be responsible to exclude all unauthorized entrants from the site.

2.8 DECONTAMINATION

A. Personnel and equipment requirements

1. All contaminated personnel and equipment exiting the exclusion zone must be decontaminated prior to entering the support zone. This decontamination must be performed to prevent contamination from being transferred into clean areas and contaminating or exposing unprotected personnel.
2. The Contractor shall develop and implement personnel and equipment decontamination procedures appropriate for the site and include those procedures in the site HASP. The procedures shall include the necessary equipment and number of steps to achieve the objective, provisions for any personnel protection, and a diagram outlining the steps or stations in the procedures.
3. The procedures must ensure adequate containment and removal of any decontamination solutions and spent disposable protective apparel.
4. Provisions shall be made to facilitate personal hygiene at breaks and following daily operations. Where decontamination procedures indicate shower usage and changing rooms away from the exclusion zone, they shall meet the requirements of 29 CFR 1910.141 and 1926.51.

2.9 SITE STANDARD OPERATING PROCEDURES

1. The Contractor shall be responsible for developing and implementing all necessary SOPs for safe and healthful site operations. Such SOPs shall be incorporated into the site HASP. A copy of these SOPs and the HASP are to be maintained on site at all times.

2.10 CONTINGENCY PLANNING

- A. Emergency Response Plan (ERP)
 1. The Contractor shall develop and implement an Emergency Response Plan (ERP) to handle anticipated on-site emergencies prior to the start of site operations.
 2. The ERP shall be incorporated into the site HASP as a separate section and shall be periodically reviewed and amended as necessary to keep it current with new or changing site conditions or information.
 3. The ERP shall address, as a minimum, the following:
 - a. Pre-planning of site operations to prevent emergencies;
 - b. Personnel roles and lines of authority;
 - c. Key personnel at the site authorized and responsible for implementing the plan;
 - d. Emergency recognition and control measures;
 - e. Evacuation routes and procedures and the frequency of emergency drills;
 - f. Safe distances and places of refuge;
 - g. Emergency security and site control measures;
 - h. Decontamination measures not previously listed in the HASP and specific for all anticipated emergencies;
 - i. Emergency medical treatment and first aid;
 - j. Emergency alerting and response procedures;
 - k. Site communications;
 - l. Site diagrams showing general layout, work zones, and prevailing weather conditions;
 - m. Procedures for reporting incidents to pertinent local, state, and federal agencies;
 - n. A list of emergency telephone contacts including the name, location, telephone number, written directions and a route map to the nearest medical facility that will provide emergency medical services;
 - o. Measures to review and follow up on-site responses; and
 - p. Emergency and personal protective equipment kept at the site for emergencies, with an equipment list and a drawing indicating their on-site location.
 - q. Maintain a list of emergency contact phone numbers for any additional resources (i.e. Rigging, Specialized Equipment, etc.) that may be required during a sit emergency.
- B. Prior to start-up of site operations, the Contractor shall attend all meetings necessary with local officials and/or those responsible for local emergency management and public safety for the purpose of coordinating the site-specific ERP with any emergency response efforts that would be performed by such agencies. These agencies include but are not limited to:
 - a. Fire;
 - b. Ambulance;
 - c. Police;
 - d. Specialized rescue; and
 - d. Local/county health officials
- C. Special first aid/CPR training

The Contractor shall ensure that at least one person holding up-to-date certifications (American Red Cross or equivalent) in basic first aid and CPR is present at the site during all site operations. A copy of current certifications must be included in the HASP.

D. Verification of medical facility preparedness

The Contractor shall contact the local medical facility selected for inclusion into the ERP to ensure that said facility is willing and capable of providing medical support necessary to satisfy those anticipated hazards and emergencies detailed in the ERP. Safety data sheets, product information, or any technical information on hazard, exposure and treatment of anticipated/known hazards should be provided by the Contractor to the medical facility. Written verification of such contact and agreement of medical services must be detailed in the ERP to include the name and title of the individual contacted and shall be provided to the NJDEP prior to start of site operations.

E. Accident and exposure reports

1. The Contractor shall notify the NJDEP Representative of all on-site accidents at the time of occurrence and follow up in writing within 24 hours. This notification shall include, but not be limited to, the date, time and identity of individual(s) involved in the accident, the nature of the accident, the actions taken to treat the victim(s), and the steps taken to prevent recurrence.
2. The Contractor shall notify the NJDEP Representative of all person(s) exposed at the time of occurrence and follow up in writing within 24 hours. This notification shall include, but not be limited to, the date, time, and identity of individual(s) involved in the exposure, the nature of the exposure episode, what the individual(s) were exposed to, the personnel protective equipment worn during the exposure, and the steps taken to prevent recurrence.
3. The Contractor shall notify the NJDEP immediately of any incident/accident that results in death or severe injury to personnel, of any fire or explosion or any incident that results in public disruption, media attention or closure of a roadway. These events shall be called into the NJDEP Communications Center, also known as the DEP Hotline at 1-877-927-6337 (1-877-WARNDEP).

2.11 CONFINED SPACE OPERATIONS

A. If no confined space entry is to be made, then a statement indicating such is sufficient for this section; however, all confined spaces must be identified in the HASP.

B. Standard operating procedures for confined spaces

Should site operations include activities within confined spaces, the Contractor shall develop and implement a confined space entry program and SOPs and shall incorporate them into the HASP pursuant to 29 CFR 1910.146. If the confined space entry meets the OSHA definition of a permit-required confined space entry, then a section addressing such entries shall be included in the HASP.

C. Entry permit system

1. The contractor shall develop and implement an Entry Permit System to ensure that the following are addressed and complied with:
 - a. Identification of all confined spaces to all employees;
 - b. Identification of hazards in the confined space;
 - c. Training program;
 - d. System of monitoring for atmospheric hazards;
 - e. System of calibration of monitoring equipment;
 - f. System of barricades to prevent unauthorized entry;
 - h. System of identifying authorized entrants, attendants, rescuers, and those authorized to sign the entry permit;
 - i. Procedure for emergency evacuation;

- j. Emergency rescue procedures; and
- k. Procedures to test the program to ensure effectiveness.
- 2. Pre-entry briefings shall be held prior to initiating any confined space entries and at other times as necessary to ensure that employees are aware of the HASP provisions governing such activities and that they are being followed. The completed permit shall be made available at the time of entry to all authorized entrants, by posting it at the point of entry or by any other equally effective means, for assurance that the pre-entry preparations have been completed.
- D. Inspection and effectiveness of SOP verification
Inspections shall be conducted by the HSO, or in the absence of that individual, another qualified individual acting on behalf of the HSO, as necessary to determine the effectiveness of the confined space SOP with regard to those confined spaces identified on site. The Contractor shall correct any deficiencies in the SOP.
- E. Atmospheric monitoring for safe entry
The Contractor shall ensure that the HSO, or in the absence of that individual, another qualified individual acting on behalf of the HSO, tests the atmosphere of the confined space prior to entry. Atmospheric testing will continue during entry to ensure that all measures necessary to protect the health and safety of employees entering have been taken and are working properly. Monitoring shall be appropriate for the contaminant(s) that are known or suspected of being present in the space.
- F. Emergency equipment and rescue services
The Contractor shall provide appropriate protective and entry equipment for all entrant personnel necessary for the permit-required entry. On-site rescue personnel must be present or off-site rescue must be able to respond to the site within 3 minutes of notification. Equipment necessary for a rescue must be identified and present at the point of entry.
- G. Training of entrants, attendants, and rescuers
The Contractor shall comply with the federal OSHA training requirements for all personnel involved in confined space entry. A training program must be administered to all personnel involved in confined space entry before entrance can be initiated. Rescue teams shall practice at least annually at the confined space or at representative openings having the same size, configuration, and accessibility as the confined space from which an actual rescue would be performed. A record of training and authorized personnel shall be kept on-site and listed in the HASP.

2.12 SPILL CONTAINMENT

- A. Containment Program
 - 1. The Contractor shall establish and implement a written spill containment program to handle the possibility of a spill or leakage of drummed or containerized hazardous materials involving any of the following activities:
 - a. Transfer;
 - b. Transport;
 - c. Disposal; and
 - d. Excavation.
 - 2. The Contractor shall identify the following on-site and off-site personnel and equipment or services necessary to isolate, contain and mitigate the spill:
 - a. Cleanup contractor or personnel;
 - b. Estimate of response time of off-site contractors;
 - c. Spill containment procedures (diking, overpacking, etc.);

- d. Special safety precautions (fire, corrosive, radioactivity, etc.); and
- e. Equipment and supplies on hand at site or readily available to respond to contain and clean up the spill.

2.13 SPECIAL AND PERMIT OPERATIONS

- A. Excavations and trenching
 - 1. If no trenching or excavation is to be performed on-site during site operations, then a statement indicating such is sufficient for this section.
 - 2. All excavation work shall comply with 29 CFR 1926, Subpart P and other state and federal regulations governing excavations and trenching. The need to perform any excavations or trenching as part of site operations must be described in the HASP.
 - 3. The methods of preparing the trench or excavation must be detailed to include descriptions of sloping, shoring, and guarding.
 - 4. Proper spacing of equipment, use of barriers, means of exit, placing of machinery and spoils must be observed.
 - 5. Personnel working around and in trenches and excavations must be trained in such operations to assure knowledge of hazards, safe operations, and procedures to be followed in the event of an emergency.
 - 6. Avoidance of overhead electric lines, underground utilities and storage structures, and service passageways must be addressed by including drawings, measurements, and descriptions in the HASP. All pertinent sections of 29 CFR 1910, Subpart S and 29 CFR 1926, Subpart K for electrical safety must be complied with and identified in the HASP.
 - 7. Underground utilities (gas, water, sewer, cable, phone and electric or process-related) - as per N.J.S.A. 48:2-73 and in compliance with 29 CFR 1926.651, no ground intrusive work is to commence without a current underground utility mark out. The One-Call system (1 800-272-1000) or (811) must be notified not less than 3 full business days before digging. Other means of locating underground utilities must be identified for utilities not covered by One-Call system. One-Call mark out ticket confirmation numbers shall be recorded in the HASP or attached to the HASP that is kept on site.
- B. Traffic control
 - 1. All traffic signage shall conform to the "Manual for Uniform Traffic Control Devices (MUTCD)".
 - 2. The New Jersey Department of Transportation (DOT) shall be notified prior to any work to be conducted on any highway, road, right of way, or property under their jurisdiction.
 - 3. Local or county police authorities shall be notified prior to working on or adjacent to any local road.
 - 4. Traffic safety PPE shall conform to applicable ANSI regulations (ANSI 107-1999) with a Class II or Class III vest.
 - 5. Traffic cones must comply with MUTCD and shall be at least 28 inches with at least a nine (9) inch base and two (2) retro-reflective bands of six (6) inches and four (4) inches. Flares shall not be used to control traffic.
 - 6. Flagger shall use only MUTCD approved "Stop/Slow" paddles.
- C. Hot work
 - 1. If no hot work is to be performed on site, then a statement indicating such is sufficient for this section.
 - 2. The performance of hot work, such as welding, cutting, etc., during site operations must be addressed in the HASP. A hot work permit procedure must be included in the HASP if hot work is performed and must comply with the sections of 29 CFR 1910.119(k), 1910.146 and 1926.64(k) et al, as they apply to these operations.

3. All hot work procedures should be outlined and shall comply with both state and local fire codes as well as with OSHA regulations.
 4. All electrical supply wiring and distribution shall comply with the codes governing such installations, including local, state, the National Electric Code, and 29 CFR 1926.400 Subpart K.
 5. Proper utilization and storage of flammable cutting gases and other compressed gases shall comply with the requirements of 29 CFR 1926.350 et al. All gas cylinders shall be secured from falling or being damaged.
- D. Lock out/tag out
1. The contractor shall develop and administer a program for the control of hazardous energy in accordance with 19 CFR 1910.147. This program should include any mobile equipment that may need to be inspected/serviced periodically on-site during site operations. The contractor shall insure that only trained and qualified personnel are allowed to conduct these inspections.

INDEX OF HEALTH AND SAFETY PLAN SECTIONS

Citations from NJ State codes/regulations, 29 CFR 1910.120 and other federal regulations as well as OSSH requirements

SECTION NUMBER	SUBJECT NAME	CITATION: FEDERAL/NJDEP
1.1	Scope of HASP	29 CFR 1910.120
1.2	<i>Site Description</i>	<i>NJDEP Contract</i>
1.3	Submittals	NJDEP Contract
2.1	<i>Key Personnel</i>	<i>(b) (1) (ii) (A)</i>
2.2	Hazard Assessment	(b) (4) (ii) (A)
2.3	<i>Employee Training</i>	<i>(b) (4) (ii) (B)</i>
2.4	Personnel Protection	(b) (4) (ii) (C)
2.5	<i>Medical Surveillance</i>	<i>(b) (4) (ii) (D)</i>
2.6	Air Surveillance	(b) (4) (ii) (E)
2.7	<i>Site Control</i>	<i>(b) (4) (ii) (F)</i>
2.8	Decontamination	(b) (4) (ii) (G)
2.9	<i>Site Standard</i>	
	<i>Operating Procedures</i>	<i>(b) (1) (ii) (F)</i>
2.10	Contingency Planning	(b) (4) (ii) (H)
2.11	<i>Confined Space Oper.</i>	
	<i>NJSA 34:1-20 et seq</i>	<i>(b) (4) (ii) (I)</i>
2.12	Spill Containment	(b) (4) (ii) (J)
2.13	<i>Special/Permit Oper.</i>	<i>1910.11;</i>
		<i>1926.64;</i>
		<i>1926.35;</i>
		<i>1910.146</i>

**E-Z HASP FOR
(SITE NAME)
FOR NON-EMERGENCY ENGAGEMENT**

INTRODUCTION

This site health and safety plan (E-Z HASP) provides site-specific guidelines and information for on-site activities. Prior to submittal of this E-Z HASP, a Programmatic Health and Safety Plan must be submitted for approval. The Programmatic HASP, used in conjunction with the E-Z HASP, shall comply with 29 CFR 1910.120 (b)(1) and the New Jersey Department of Environmental Protection's (DEP) Minimum Requirements for contractors conducting work at hazardous waste sites and other related activities. Copies of both this E-Z HASP, and the Programmatic HASP, must be available at the site for the duration of any activities being conducted.

SECTION 1: GENERAL SITE INFORMATION

Site name:

Location *(street address)*

Block(s):

Lot(s):

City/Town:

County:

Site Description: *(type of operation(s), past use, size/area, known and potential contaminants, previous investigation/remedial activities, media impacted etc...)*

Starting Date of Proposed Work:

Anticipated Duration of Project:

SECTION 2: KEY PERSONNEL

The following is a list of the names and job functions of all site personnel anticipated to be on site:

Project Manager:

Project Supervisor: (if different from Manager)

On-Site Health and Safety Officer:

Corporate Safety Officer:

Project Coordinator (DEP):

Others:

Responsibilities:

Project Manager:

Project Supervisor:

On-Site Health and Safety Officer:

Corporate Health and Safety Officer:

SECTION 3: SITE OPERATIONS**Tasks to be performed: (*check all that apply*)**

- () Building demolition
() Underground tank removal
() Capping/paving
() Hydropunch or Geoprobe
() Monitoring well installation
() Sample collection (waste, soil, surface/ground water, etc.)
() Excavation/Trenching
() Spill cleanup
() Waste load out for disposal
() Other(s) _____

Work Zone Map

Attached is a site map lay out grid indicating the locations of the work zones, staging areas, exclusion zones, decontamination area, etc. Include scale (suggest 1" = _____ ft).

A	B	C	D	E	F	G	H	I	J	K
1										
2										
3										
4										
5										
6										
7										

8									
9									
10									

SECTION 4: SAFETY and HEALTH RISK / SITE HAZARDS

Contaminant/Waste Characteristics:

General Forms: _____solid _____liquid _____sludge _____Gas/vapor

Contaminant/Waste classes:

___corrosive ___radioactive ___reactive ___toxic ___ignitable ___volatile
 ___unknown ___other

Known or suspected contaminant/wastes present:

List contaminants and provide MSDS as attachment to HASP.

Substances Concentration and Media Primary Exposure Hazard.

Known:

Potential:

Safety hazards:

X-mark off items for site hazards

- ___ heavy equipment
- ___ excessive noise
- ___ hoses, tools, etc. lying on ground (slip, trip, fall)
- ___ surface debris (broken glass, sharp objects)
- ___ wet or slippery surfaces
- ___ subsurface/buried objects
- ___ unstable building structures
- ___ excavations
- ___ above ground or underground utilities**
- ___ stacked drums
- ___ confined spaces (confined space entry program required if applicable)
- ___ motor vehicle traffic

- ___ poison ivy/oak
- ___ ticks/other insects
- ___ infectious waste
- ___ darkness
- ___ Other safety hazards: (animals, high crime area, etc.)

****Underground utilities** (gas, water, sewer, cable, phone and electric or process-related) - As per N.J.S.A. 48:2-73 and in compliance with 29 CFR 1926.651, no ground intrusive work is to commence without a **current** underground utility mark out. The One-Call system must be notified not less than 3 full business days before digging. Additional mark outs may be needed to be performed for utilities not covered by One-Call system. The One Call Markout Ticket Confirmation Number(s) must be recorded in the HASP or attached to the HASP that is kept on site.

New Jersey One Call System Confirmation Number: (*attach ticket to HASP kept at site*)

Hazard Prevention: (*procedures, steps to be taken, to address all identified site hazards*)

Potential for heat/cold stress:

Temperatures are expected to be in the ___° to ___° range. There is a minimal___, moderate ___, or severe___ potential for heat/cold stress.

Safety Item	Safety Note	Location
Phone:		
Eye wash:		
First Aid Kit:		
Fire Extinguishers:		
Other___		

SECTION 5: PERSONAL PROTECTION

Level of Protection (LOP) to be employed for each site task. (*initial site survey, mobilization, excavation, etc.*)

Personal Protective Clothing/Equipment Check List (*may reference Programmatic HASP*)

Level D/Modified D*: steel toe/steel shank safety shoes

- ☐ rubber over-boots or disposable boot covers *
- ☐ work coveralls
- ☐ Tyvek coveralls*
- ☐ outer gloves (*type of material – nitrile, PVC, etc.*)*
- ☐ inner gloves (*type material*)*
- ☐ work gloves
- ☐ hard hat
- ☐ safety glasses
- ☐ hearing protection
- ☐ dust mask (*nuisance dust only*)*

“Modified D” * Modified Level D is defined as any chemical protective clothing ensemble worn without inclusion of an air purifying respirator.

Level C: steel toe/shank safety shoes

- ☐ Full-face respirator with appropriate cartridges (*identify type*)
- ☐ rubber over boots or disposable boot covers
- ☐ Tyvek or other appropriate chemical resistant coveralls (*identify type of material*)
- ☐ splash/lab apron
- ☐ outer gloves (*material*)
- ☐ inner gloves (*material*)
- ☐ hard hat
- ☐ hearing protection

Level B: steel toe/shank safety shoes

- ☐ pressure demand SCBA
- ☐ rubber over boots or disposable boot covers
- ☐ PVC Tyvek or other appropriate chemical resistant coveralls (*identify type material*)
- ☐ outer gloves (*material*)
- ☐ inner gloves (*material*)
- ☐ hard hat

Other safety equipment:

- | | |
|---|--|
| ☐ hearing protection | ☐ traffic cones |
| ☐ face shields | ☐ safety vests |
| ☐ tick spray | ☐ traffic warning signs |
| ☐ sunscreen | ☐ other _____ |
| ☐ cooler(s) | _____ |

SECTION 6: AIR MONITORING

Monitoring instruments selected:

Contaminant	Instrument (make/model)	Settings (span, etc.)	Calibrant (type/conc)	Frequency of Use (time period)	Type Atmosphere
VOCs					
LEL/UEL					
Oxygen					
Dust					
Fibers (asbestos)					

NOTE: Continuous monitoring required for Level C Protection and above.

Air Quality Action Levels

Organic Vapors (unknown)	Background	Level D
	* >Background-5ppm in breathing zone	Level C
	* 5-500 in breathing zone	Level B
	* 500-1000 in breathing zone	Level A

* Concentrations above background sustained for one minute or longer

NOTES: These action levels established by the USEPA Emergency Response Team are **guidance** only and do not apply to substances with very low TLVs or IDLH concentrations. Action levels should be revised in relation to the presence of known and suspected substances. There are also substances against which full-face, cartridge equipped masks do not protect.

Action Levels Condition	Range	Action Required
Oxygen:	Less than 19.5%	Leave site or go on Supplied
	More than 23.5%	Leave site – Fire/Explosion Hazard
Combustible Gases:	>10% LEL	Leave site – Fire/Explosion Hazard
Radiation:	> 0.08 mR/hr	Proceed with caution
	> 1 mR/hr	Continue only on advice of Health Physicist

Other Monitoring: *(If required; if no other monitoring is anticipated state "NONE")*

SECTION 7: DECONTAMINATION

All personnel and portable equipment used on site shall be thoroughly decontaminated before leaving the site.

7.1 Decontamination Procedure for personnel: *(include doffing steps, decon solution to be used, how performed)*

Diagram of Decon Area *(Attachment-include steps, locations etc.)*

7.2 Decontamination Method/Procedure for Equipment and Instruments:

7.3 Disposal of Contaminated Material:

Disposable protective clothing, respirator cartridges and similar items will be bagged for proper disposal. Contaminated rinsate from decontamination of personnel and equipment will be disposed of per state/federal guidelines unless other arrangements have been made.

7.4 Decontamination Equipment and Supply Checklist

☐ Steam Cleaner/power washer	☐ Buckets	☐ other
☐ Water sprayers	☐ Scrub brushes	
☐ Detergent (Alconox)	☐ Deionized water	
☐ Tap Water	☐ Garden Hoses	
☐ Plastic garbage bags	☐ Disposable wipes	
☐ Poly sheeting	☐ 55 gallon drums	

SECTION 8: EMERGENCY RESPONSE

8.1 Communication

Team members will always work in groups of a minimum of two while on site. Visual contact distance among team members must be maintained at all times.

Site Personnel Roles/Line of Authority:

Emergency Signals:

8.2 Evacuation:

EXAMPLE: In the event of an emergency, such as fire, explosion, toxic gas release etc, personnel will leave the work area or site and meet at a location agreed upon before starting work (case manager's support vehicle, nearest street, facility entrance etc.)

8.3 Response to Personnel Injury or exposure *(indicate procedures)*

Skin or eye contact:

Inhalation:

Ingestion:

EXAMPLE: -Symptoms and First Aid for Heat related injuries:

Symptoms of **heat stress** include fatigue and muscle weakness, reddening of extremities (ears), cramping of stomach, arms and legs.

Symptoms of **severe heat injury** requiring IMMEDIATE MEDICAL ATTENTION include seizures, fainting, loss of consciousness, bizarre behavior; profuse sweating than cessation of sweating resulting in hot dry skin.

Suggested first aid:

- Cool victim
- Remove victim out sun into shaded area (air condition vehicle)
- Dampen victims clothing and remove excess impervious garments
- Provide water, if conscious and not vomiting
- TRANSPORT TO HOSPITAL WHILE ADMINISTERING TREATMENT FOR SEVERE HEAT INJURIES

8.4 Emergency Decon Procedures

If decon cannot be done, the victim will be wrapped in blankets, plastic or rubber to reduce contamination of other on-site personnel and rescue workers. **Rescue workers and hospital must be informed if victim is potentially contaminated. HASP, or minimally MSDS material, must accompany the victim to hospital.**

8.5 Emergency Information

Emergency Service

Ambulance

Phone Number(s)

911

* Hospital Emergency Room

(Name, address and phone #)

Local Municipal Offices

Police Department

_____ and/or 911

Fire Department

_____ and/or

911

HazMat Team

1-877-927-6337 (1-877 WARNDP)

Poison Control Center

1-800-962-1253

NJDEP Case Manager

USEPA Emergency Response

1-800-424-8802

Other

* Per NJDEP's minimum HASP requirements, the hospital that is to provide emergency room services to potentially contaminated victims must be notified prior to commencing of site activities.

If an employee becomes injured or ill while on the job, transport to the medical facility listed in the HASP. State that the injury, or illness, is an "on the job injury" and provide safety data sheets for compounds involved if applicable. **Hospital must be informed if victim is potentially contaminated.**

- **If the medical emergency is life threatening, call 911 and treat until emergency personnel arrive. If using a cell phone, be clear in providing your location.**

Route to the Hospital:

Attach a map with the route highlighted and written instructions of the route:

(provide clear, easy to follow instructions on map)

Authorities and responsibilities of authority have been agreed upon with the responding off-site emergency personnel. Attached are written agreements:

Fire Department

Police Department

Medical/EMS

Emergency Management

Other _____

SECTION 9: GENERAL REQUIREMENTS

9.1 Training

As per OSHA 1910.120 requirements, personnel engaging in exclusion zone activities must have completed a minimum of 40 hours of environmental safety and health training with a current 8-hour annual refresher. In addition, on-site managers and supervisors directly responsible for or who supervise personnel engaging in field activities shall have completed additional required training in the supervision of those activities.

A site safety meeting shall be conducted prior to the start of on-site activities, and before each day's work, if necessary. This meeting is especially important when site activities are being performed by subcontractors hired by contractor.

It is the contractor's responsibility to ensure that any subcontractors it brings on site have the minimum training requirements and that any workers potentially exposed to hazardous materials are enrolled in a medical surveillance program.

9.2 Medical Surveillance

All personnel, including contractors, who are potentially exposed to hazardous substances must be enrolled in a medical surveillance program (MSP) and must have had an up-to-date physical, as outlined in Chapter 5 of the *Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities*, NIOSH, OSHA, U.S. Coast Guard and U.S. EPA; Oct. 1985. *(may reference Programmatic HASP)*

9.3 General Safety Rules: *(generic examples outlined-may reference Programmatic HASP)*

- a. There will be no eating, drinking, or smoking in the exclusion or contamination reduction zone. All personnel must pass through the contamination reduction zone to enter or exit the exclusion zone.
- b. At a minimum, an emergency deluge shower/spray is to be located in the clean area of the site outside contamination reduction area (for Level C and above).
- c. All personnel shall wash hands, arms and face before eating, smoking or drinking and at the end of the work day.
- d. All supplied breathing air shall be certified as grade D or better.
- e. Where required and practical, all tools/equipment will be spark proof, explosion resistant, and/or bonded and grounded.
- f. Fire extinguishers will be on-site for use on equipment or small fires only.

9.4 Confined Space Operations:

Confined Spaces are identified at: *(If no confined space work anticipated state "NONE")*

Confined Space Entry Permits are Required ____ yes ____ no

Confined Space Procedure Outline: *(may reference Programmatic HASP)*

9.5 Other Safety Precautions and Hazardous Operations

a. Site Security:

Specify site control measures to address:

- On site workers from improperly entering controlled zones
- Unauthorized entry into site:

b. Hot Work

- Hot Work activities are identified at the following locations and operations:
- Hot Work Permits will be issued by:
- Safety precautions to prevent fire or injury are: *(may reference Programmatic HASP)*

c. Spill Control

- Spill control materials (spill pads/absorbents) are located at:
- Contaminated materials being excavated, or transferred, are to be monitored and wherever possible be performed in a spill catch area with control materials nearby.
- Precautions and procedures have been established to prevent spills during:
 - Transfer
 - Transport
 - Disposal
 - Excavation*(may reference Programmatic HASP)*
- The Spill Response Contractor/Personnel to respond to a spill are (list/name):

d. Excavation and Trenching

- Trenching and Excavation operations are to be performed at (locations):
- Compliance with 29 CFR 1926 and other federal and local agencies shall be enforced.
- The following procedures will be followed to address excavation hazards:
(sloping shoring, bracing, structural support)