

# CITY AND COUNTY OF DENVER

<b>Contractor Safety Policy</b>		
Occupational Safety and Health Management System No. 65.5.5  This policy was developed and shall be implemented under the authority of Executive Order No. 65 and the Risk Management Office.	January 1, 2008	Prepared / Revised By:  Risk Management – Safety Unit

## **1.0 Introduction**

This policy has been developed to ensure contractors at the City and County of Denver have the appropriate programs developed and implemented to work safely at its facilities. The City is also committed to injury/illness prevention to all City employees and to the prevention of property damage or other loss caused by the action or inaction of outside contractors.

## **2.0 Scope**

The effectiveness of the contractor safety policy depends upon the active support and involvement of all employees. This policy is intended to ensure that all contractor work practices are carried out safely to minimize the possibility of injury or harm to the contractors' employees or the City's employees.

Contractors performing work are required to comply with the procedures outlined in this document. Individual departments / agencies who have an existing Contractor Safety program in place may continue to use that program if it provides the same degree of protection.

## **3.0 Definitions**

**“Scope of Work”** is a documented description of the project. The scope of work should be concise but adequately explain the sequential steps of the project in enough detail to ensure the contractor understands the work. For large projects this document may require several pages. For small projects a paragraph may be all that is needed. (See Attachment One)

**“Site Conditions”** are the specific rules, regulations, procedures, and administrative requirements for the location. This document must be detailed and specific about what is required to meet the environmental, health, and safety expectations. Site Conditions could be provided to the contractor as a legal attachment to the Purchase Order. Contractor employees are expected to know and understand all aspects of the Site Conditions. (See Attachment Two)

**“Site Visits”** are meetings with the potential contractors and/or subcontractors to explain the Scope of Work, the Site Conditions, and other aspects of the project. It is the time and place to ensure that the City and County of Denver and the contractor are in agreement about the project. The contractor should ask questions about any items that are not clear and the City and County of Denver can evaluate the contractor's ability to perform the work.

**“Contractor Safety Plan”** is a formal document that is completed by the contractor to ensure that employees performing the work are protected from environmental, health, and safety hazards. It is an analysis of all steps of the project to determine if hazards exist, and to provide measures to address these hazards. Work shall not begin until the plan is reviewed and approved by a Competent Person at the City or Department/Agency. (See Attachment Three)

**“EHS”** Environmental Health Safety

**“EHSR”** (Environmental Health Safety Review) is a process to ensure all aspects of the completed project meet the City’s environmental, health, and safety standards. (See Attachment Four)

**“Safety Hazard Assessment”** is an evaluation of a work place, or work situation, as to the potential for hazards that an employee or contractor employee may encounter while performing the job.

**“Competent Person”** is someone who has the specific knowledge and skill in a particular area of expertise, such as excavation, asbestos removal, high voltage work, etc. This person has obtained this knowledge through training and experience and has demonstrated the ability to recognize the unique hazards involved and authority to provide measures to address the potential hazards.

**“Contractors”** and **“Subcontractors”** are entities, or employees of entities, that perform onsite activities that will be governed by a contractual obligation involving hours worked by non-City employees but not directly supervised or controlled by the City and County of Denver.

**“Construction”** is an activity performed by “contractors” that is generally the construction of new facilities or the maintenance, renovation, or relocation of existing facilities. It is work that normally requires civil, mechanical, electrical, and/or other specialty work.

**“Contracted Services”** are onsite activities such as security, janitorial, cafeteria, uniform services, lawn care service, garbage disposal, pest control, and contracted vendors. This process may also be used for services such as engineering, design, training, consulting, or other professional contracts. These are normally unescorted persons versus escorted persons.

**“Low Risk Activity”** this could be defined as a short duration job (< 2 weeks) that has minimal number of contractor employees (< 10), has no or *very* minimal interface with production and maintenance activities, or where contractor isolation can be enforced to limit exposure to the surrounding operating environment. For this activity level, the minimum procedures that would be applicable are specific Government Regulations.

Examples of low risk activities could be:

- Repetitive maintenance works where standard JHAs and procedures are well established.
- Contracted Services, such as, vending machine operators, design firms, pest control, sanitary/cleaning services, etc.
- Small turnkey projects

**“Medium Risk Activity”** as the number of Contractor employees increase on a specific jobsite and the introduction of multi-discipline Contractors with Subcontractors are added, and the length of site duration, as well as, interface with operating departments and activities changes, the level of

risk increases. As this risk increases, the level of procedural controls shall be broadened to cope with the additional safety implications. It no longer is sufficient to just annex a set of standards and assume the Contractors will adhere to them, but a proactive safety commitment on the City's part shall be employed.

Examples of medium risk activities could be:

- Small environmental remediation projects
- Capital projects < \$10 Million
- Projects that require moderate elevated working conditions, working in pits or excavated areas, electrical high voltage work, dealing with known, identifiable hazardous materials, etc.
- R&D type projects that are not totally definable by installation specs
- Turnkey warehouse type building construction

**“High Risk Activity”** these activities require increased involvement with the Contractor at all stages of the project, from conceptual planning through to final completion. The safety obligation for a high-risk project shall be viewed as a shared responsibility between City and Contractor. It is to the benefit of both to bring the maximum of procedural controls forth to insure that all minute site-specific details are discovered, discussed, and dealt with prior to commencement of the work. This will insure minimal disruptions in the field activities and insure that the employees are well communicated with as to the potential hazards as the work front’s progress.

Examples of high-risk activities could be:

- Green field construction projects
- Large brown field construction projects
- Major demolition projects
- Large shutdown projects, requiring a large number of contractors, with large multi-disciplined crews, for a relatively short duration but requiring 24-hour, 7-day scheduling, resulting in a large coordination effort.
- Large environmental remediation projects or any OSHA 1910.120 Hazardous Waste Operation projects
- Heavy structural steel erection, long duration elevated work conditions, large open, deep excavations, heavy mechanical rigging projects, or specialty one-off projects
- Major capital projects that result in more than three multi-discipline contractors for a duration of longer than six months (not necessarily continuous), spending > \$10 Million/year, requiring extensive interface with operating areas

## **4.0 General Rules**

- 4.1. All covered contractors shall be informed of general safety and environmental regulations and specific department/agency requirements that must be followed while on City property. Contractors shall be informed prior to starting a project, of the hazardous materials within the department/agency facility as specified in the City’s Hazard Communication Policy. All contractors bringing hazardous chemicals into department/agency facilities are subject to the requirements of the department/agency’s Hazard Communication Program, including: maintenance of material safety data sheets, Hazardous Chemical Lists, container labeling, and employee training.

## 5.0 **Responsibilities**

- 5.1. In accordance with this policy and Executive Order No. 65 Department and Agency Heads shall have the following responsibilities:
- a) Ensure that a Contractor Competent Person is available to manage the department/agency contractor needs.
  - b) Ensure the department/agency complies with the requirements of this policy.
- 5.2. Contractor Competent Person shall have the following responsibilities:
- a) Has a working knowledge of regulatory standards that are normally applicable to the type of contracted work.
  - b) Has working knowledge of the contract that applies to work being done on City property.
  - c) Represents City and County of Denver interests, but is not necessarily an employee of the City.
  - d) Work with Contractor, Subcontractor or Contracted Services on Safety Hazard Assessments. (Attachment Five)
  - e) Determine to which degree to apply the Contractor, Subcontractor or Contracted Services Process to any given Contractor, Subcontractor or Contracted Services.
  - f) Ensure compliance with this policy.
  - g) Support City management in ensuring that the contractual Health and Safety obligations of the Contractor, Subcontractor or Contracted Services are met.
  - h) Conduct periodic assessments of Contractor, Subcontractor or Contracted Services to confirm compliance with this procedure.
  - i) Require the Contractor, Subcontractor or Contracted Services to appoint a Contractor Competent Person(s).
  - j) When necessary assist in providing a Safety Orientation and specific safety training in compliance with the City and County's Health and Safety Management System.
  - k) Monitor the Contractor, Subcontractor or Contracted Service's regulatory training for compliance to the Scope of Work.
- 5.3. Contractor shall have the following responsibilities:
- a) Designate a Contractor Responsible Person(s).
  - b) Demonstrate the use of a written Health and Safety program that meets the City and County expectations.

- c) Select Subcontractors that will comply with this policy.
- d) Provide all job specific regulatory training as required for the performance of the Scope of Work.
- e) Identify and communicate any potential hazards associated with the work including work by the Subcontractors.
- f) Write the appropriate Job Specific Safety Plans based on the Safety Hazard Assessment and communicate to all employees (including subcontractor employees) the hazards and the control and abatement procedures outlined in the Job Specific Safety Plans.
- g) Provide the necessary training to ensure that the control and abatement procedures outlined in the Job Specific Safety Plans are followed.
- h) Provide a copy of the Job Specific Safety Plans to the location.
- i) Review and update the Job Specific Safety Plans as needed and communicate to all Contractors, Subcontractors or Contracted Services employee and the City and County's Contractor Competent Person.
- j) Provide responsible resources at the location to advise and direct work in accordance with the Job Specific Safety Plans.
- k) Determine the methods to enforce rules and safe work practices.
- l) Perform self-audits and implement corrective actions while working at the location.

## **6.0 References and Additional Information**

29 CFR 1910.1200 – OSHA Hazard Communication Program  
Denver Fire Code, Chapters 7, 23  
National Fire Protection Association (NFPA) Article 30

## Attachment One

### Scope of Work Help Sheet

*The “Scope of Work” is the description of the job including the “who, what, when, where and how” aspects of the work. If the project or service is straightforward or simple, the scope of work may be brief. If the work is unusual or complex, the scope of work must be more detailed. The scope of work becomes part of the contract specifications. The scope of work also explains the environmental, health, and safety expectations of the job including:*

- “Site Conditions” (specific rules, regulations, procedures, permits, etc.)
- Hazardous materials (asbestos, refractory ceramic fibers, PCBs, lead, etc.) that might be encountered during the course of the contractor’s work.
- The contractor’s role regarding such special materials and specific precautions or procedures to be employed when dealing with such conditions. If such special materials are to be transported or disposed of, procedures for doing so shall be specified.

**Steps for Preparing a Scope of Work** -- each of the following shall be identified:

#### 1. The Task

Briefly but specifically explain what the contractor/contracted service is to do and the specific tasks to be accomplished by the contractor/contracted service. Identify the expected goals as well as the anticipated activities to accomplish those goals. Describe how the assignment is to be carried out.

#### 2. Deliverables

Describe the outcome, process, or product required.

#### 3. Timeline

Develop a time line that includes the assignment's beginning, duration, and completion dates.

#### 4. Key Personnel

Identify the individuals who are essential to the work, the skills and qualifications desired of the contractor/contracted service

### **Additional Considerations:**

#### Purpose of the Assignment

When the task(s) to be accomplished are not readily identified or well defined, specify the need for and purpose of the technical assistance and why it is necessary to the success of the PROJECT.

#### Identification of Information Sources

Identify relevant documents and information sources which would help the contractor/contracted service perform the assignment.

## Attachment Two - Sample Site Conditions

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## 1.0 PURPOSE

Site Conditions is a required document describing the Environment, Health and Safety (EHS) responsibilities of Contractors, Subcontractors, and Vendors when performing work for the City and County of Denver. This document shall be included in all contracts and purchase orders for Contractors and Vendors.

## 2.0 COMMITMENT

All Contractors and Vendors are expected to understand and comply with the City and County of Denver's Safety, Health and Environmental Management Systems.

The Contractor's Management is accountable for the safety and health of the Contractor's employees. The Contractor is also accountable for the impact that the actions of his employees and subcontractors may have on the safety and health of others.

## 3.0 COMPLIANCE WITH REGULATIONS

The Contractor and Subcontractors shall comply with all applicable federal, state and local laws, regulations, rules, and codes and other documents referenced in the contract specifications. Also, the Contractor and its Subcontractors shall comply with any additional provisions as specified by the City and County of Denver representatives.

All construction activity shall be performed in such a manner to minimize interference with normal City and County operations. Contractor's employees shall remain in their assigned work areas. Any violation or deviation from the above conditions by the Contractor may result in the dismissal of the Contractor or Contractor's employee from the property and cancellation of contracts with the City and County of Denver.

## 4.0 PRE-JOB MEETING

Prior to starting work, the Contractor's representatives shall meet with the City and County 's representatives for a pre-job meeting in order to ensure a correct understanding of the required Environmental, Health and Safety (EHS), security, fire protection, accident reporting, permits, scheduling, and operating requirements. The Contractor shall supply the City and County's representative(s) with copies of the Contractor's Safety Manual, training documentation, and any other related materials.

The contractor has the responsibility to prepare a Contractor Safety Plan prior to the meeting. The City and County's Contractor Competent Person(s) will review this job plan and all EHS aspects of the project will be discussed. The meeting will also address materials and equipment required to perform the job. The Contractor Safety Plan shall be reviewed with the crew prior to starting work.

## 5.0 ORIENTATION

A contractor orientation shall be required. Orientation attendees will include all contractor and subcontractor employees. **No one shall work on site without successfully completing an orientation.**

The orientation shall be presented by the City and County's Contractor Competent Person(s), or by designee. The orientation is location specific and can be in the form of overheads, videos, and other prepared material. Information on EHS aspects of the job or task, Site Conditions, emergency procedures, permit requirements, traffic patterns, adjacent operating equipment, and waste disposal are to be included in the orientation. The orientation shall be documented and an appropriate means of employee identification shall be provided.

## **6.0 ENVIRONMENTAL EXPECTATIONS**

The Contractor is expected to operate in a manner, which protects the environment and the health of his employees and the citizens of the surrounding community.

Releases to the environment, including spills, gas releases, explosions, etc., are considered a serious matter. A release constitutes potential for ground water contamination, surface water contamination or releases of hazardous materials into the atmosphere, even if the material released is not generally considered hazardous.

Releases that could be encountered at a given location include, but are not limited to the following:

- 1) Oil/Petroleum Spills (diesel, gasoline, etc.)
- 2) Hazardous Waste Spills
- 3) Hazardous Substance Spills/Releases (solvents, acid, paint, etc.)
- 4) Fires or Explosions related to any of the above.

The Contractor shall provide impermeable secondary containment in storage areas where flowable materials are subject to spilling.

If a release occurs, the Contractor shall take the following steps:

- 1) Attempt to contain the release, if possible, without risking bodily harm. If there is immediate danger, evacuate the area.
- 2) Immediately contact the Emergency Response Team and provide them with the details of the release, even if the material involved is not considered hazardous.

When notifying the Emergency Response Team, provide the following information:

- 1) Exact location of the release.
- 2) Type and description of released material.
- 3) Estimated amount of material released or size of the fire.
- 4) Extent of injury or property damage occurring.
- 5) Extent of actual or potential environmental damage, if known.
- 6) What actions, if any, have been taken to control the release?

The Contractor is required to comply with the Emergency Planning and Community Right-to-Know Law and all applicable State Right-to-Know Laws.

Disposal of Contractor generated batteries; engine oil, transmission fluids, hydraulic fluids, filters, radiator fluids, tires and fluorescent light bulbs shall be in accordance with all applicable laws and regulations.

## 7.0 HEALTH AND SAFETY EXPECTATIONS

### 7.1 Conduct of Contractor Employees

While on City and County of Denver's Property, the Contractor's employees shall not engage in any dangerous, illegal or outrageous conduct, including but not limited to the following:

- 1) Violating safety rules or common safety practices, or causing a safety threat to a co-worker.
- 2) Creating or contributing to any unsafe or unsanitary condition.
- 3) Unnecessarily distracting the attention of any employee who is working, or participating in a non-work related activity that interferes with the job.
- 4) Using abusive language.
- 5) Threatening, intimidating, harassing, coercing or interfering with fellow employees.
- 6) Discriminating by talk or action against groups or individuals on the basis of race, color, sex, age, religion, disability, veteran's status, pregnancy, or national origin.
- 7) Immoral conduct or indecency, sexual harassment, or possessing or displaying offensive verbal, visual or physical material or objects of any kind.
- 8) Fighting or instigating a fight.
- 9) Theft, abuse or deliberate destruction of property, tools or equipment of employees or the City.
- 10) Gambling of any type.
- 11) Possessing or consuming any intoxicating beverage or illegal substance including paraphernalia on the premises.
- 12) Reporting for work in an unfit condition, including being under the influence of intoxicants or controlled substances, or misuse of any prescription drug.
- 13) Refusing to submit to drug and/or alcohol testing when properly directed by supervisor.
- 14) Test results showing the presence of alcohol or illegal drugs in any amount.
- 15) Possessing firearms or other weapons on City premises.
- 16) Making false or malicious statements concerning an employee.
- 17) Soliciting, collecting contributions, or distributing written or printed matter without permission of management.
- 18) Horseplay or throwing materials on City and County premises, or not giving attention to job during working hours.
- 19) Failure to obey supervisor or other forms of insubordination.
- 20) Frequent tardiness or absences from work.
- 21) Leaving job or work area during working hours without permission.
- 22) Any action or behavior illegal under local, state or federal law.
- 23) Smoking in offices, lunchrooms, or other areas not designated for smoking.

### 7.2 Substance Abuse

Possessing or consuming any intoxicating beverage or illegal substance is forbidden. It is the responsibility of the contractor to monitor its employees prior to their entry to City and County of Denver property and also in the course of their work. Those found to be under the influence of alcohol or drugs will be removed from the premises and will be denied future admittance.

### 7.3 Housekeeping

Good housekeeping is indicative of a proactive safety attitude and can eliminate the root cause of many accidents. Good housekeeping practices increase productivity and increase the quality of goods produced and services rendered. Housekeeping is the responsibility of each Contractor or Subcontractor who shall:

- 1) Have a daily clean-up plan.
- 2) Stack materials to maintain safe clearances and prevent toppling.
- 3) Remove loose overhead materials.
- 4) Immediately remove or bend over any nails protruding from lumber.
- 5) Not allow refuse to accumulate.
- 6) Locate containers throughout the Contractor's work area for collection of his employee's trash and empty on a regular basis.
- 7) Maintain unobstructed passageways for pedestrian and vehicle traffic.
- 8) Maintain roofs free of combustibles, trash and debris.
- 9) Secure all loose materials on roofs so they cannot become airborne.
- 10) Maintain hoses and cords such that they will not become tripping hazards.
- 11) DO NOT store material or equipment under or near high voltage lines or equipment.

The specific locations for the disposal of various wastes (clean excavated material, common construction trash, solvents, flammable liquids, etc.) shall be in accordance with City and County of Denver instructions.

### 7.4 Work Permits

A work permit is a written document requiring authorized sign-off by City and County Personnel and the Contractor to perform designated activities. A work permit system shall be utilized for the following activities:

- 1) Welding or burning.
- 2) Excavating or digging.
- 3) Accessing any Roof.
- 4) Entering Confined Spaces.
- 5) Working on High Voltage.
- 6) Removing Asbestos

### 7.5 Hazardous Material Handling

The Contractor must comply with the Hazard Communication Standard and all applicable Right-to-Know laws. The City and County will make the Contractor aware of specific industrial Hygiene concerns.

The Contractor will:

- 1) Provide the City and County with a list of all hazardous materials that the Contractor brings into the workplace.
- 2) Provide the City and County with MSDS describing in details the hazards of each hazardous material.

- 3) Label all containers of materials brought onto City and County property.
- 4) Provide its employees with information and training on the hazardous chemicals in their workplace

#### 7.6 City and County of Denver's Equipment

Contractors may not operate any equipment belonging to the City and County of Denver unless authorized by the City and County of Denver Contractor Competent Person(s).

#### 7.7 Contractor's Mobile Equipment

Contractor shall ensure that employees assigned to operate mobile equipment have had the required training and licensing and have demonstrated the necessary skills to operate the equipment. Contractors shall also ensure and attest that the equipment has been successfully tested and checked for compliance with applicable Governmental requirements.

Each operator prior to operating the equipment shall complete a written "Pre-Operational Inspection". The inspection remains on the vehicle for a shift and is reviewed and filed by the Contractor. Immediate action shall be taken on items noted that pose serious safety concerns.

All motor vehicles and mobile equipment shall be maintained in a safe operating condition, free of oil, hydraulics, and other fluids leaks, and with the necessary guarding of moving parts in compliance with the City and County of Denver's requirements. Motor vehicles and mobile equipment shall be equipped with a fire extinguisher and back-up alarm in accordance with the City and County of Denver's requirements. Where required contractors shall have spill kits and "equipment diapers" for each vehicle.

Contractor's equipment shall have occupant restraints and roll over protection (if so equipped) and used as required by the City and County of Denver policy. When mobile equipment is not in use, it must be positioned where it will not obstruct railroad tracks, roadways, walkways, electrical lines or temporary passageways. All equipment not in use must be secured to prevent movement or operation. Mobile cranes shall not be parked with the boom suspended over walkways, employee passageways, roadways, railroad tracks, electrical or mechanical equipment or buildings. Mobile cranes shall not be parked in location that may obstruct building crane or bridge crane travel. Tower cranes shall be left to weathervane when unattended.

When mobile equipment is in use, clearances shall be maintained to prevent anyone from being caught between the equipment and structures. The Contractor shall barricade the work area or provide a flagman for the protection of persons passing by. Proper distance from electrical lines shall be observed.

#### 7.8 Ladders/Scaffolding

Ladders and scaffolding shall be in good condition and comply with the City and County of Denver requirements. Ladders shall be unpainted and constructed from non-conductive materials.

Job-built ladder usage shall comply with ANSI Standard 14.4 and the construction of a job-built ladder shall follow specific guidelines set forth in the standard to ensure its safety and strength.

When working on/from a ladder at elevations greater than six (6) feet above the work surface, all ladders (including step ladders) shall be tied, blocked, stabilized by a second worker or otherwise secured against accidental displacement. Where adequate anchorages are available, workers shall tie off using a personal fall arrest or restraint system, or utilize a different means of gaining access (i.e. scissor lift, scaffold, etc.).

## 7.9 Electrical Hazards

All Contractor employees must be aware of the electrical hazards that exist at the worksite and follow the safe work procedures described below that are required to address them. These hazards are broken down into the categories of High Voltage (over 600 volts) and Low Voltage (under 600 volts).

### 7.9.1 High Voltage

- 1) Unless specially trained and authorized, DO NOT work on or around any high voltage power lines or electrical equipment.
- 2) DO assume all power lines and electrical equipment are energized.
- 3) DO NOT work within 10 feet of un-insulated power lines or equipment.
- 4) DO NOT have materials, tools, or other objects within 10 feet of un-insulated power lines or equipment.
- 5) DO NOT operate mobile equipment within 10 feet of un-insulated power lines or equipment.
- 6) DO NOT place buildings, store materials, park vehicles, etc. under power lines or within a 10 feet right of way of power lines.
- 7) DO NOT block access to substations or other electrical equipment.
- 8) DO NOT work outside during thunderstorms or when lightning is present.
- 9) DO NOT leave a vehicle or other mobile equipment if it becomes energized due to contact with a high voltage power line.
- 10) DO notify the appropriate authority in the event of an electrical malfunction.

### 7.9.2 Low Voltage

- 1) DO NOT work on or around any electrical equipment unless you have been specially trained and certified.
- 2) DO NOT store materials, park vehicles, or leave equipment within 3 feet of breaker panels, transformers, or other electrical equipment.
- 3) DO NOT touch cables, breaker panels, transformers, or other electrical equipment.
- 4) DO NOT use faulty electrical tools, cords, or other equipment.
- 5) DO use grounded or "Double Insulated" tools, cords, and other electrical equipment.
- 6) DO use "Ground Fault" outlets and/or cords for all construction activities.

- 7) DO NOT use metal or other conductive ladders.
- 8) DO NOT remove “Ground” wires from poles, towers, fences, transformers, motors, panels, or other electrical equipment.

#### 7.10 Work Requiring Special Skills

All Contractor employees who work in jobs that require special skills shall be qualified. If they do not have the appropriate qualifications, the Contractor shall provide EHS Specific Training. This training shall be specific to the hazards involved and provide the necessary knowledge and skill to safely perform the work. The City and County of Denver Contractor Competent Person(s) will evaluate this training to assure that it meets The City and County of Denver’s requirements. All training shall be documented.

#### 7.11 Elevated Work - Fall Protection

- 7.11.1 A 100% fall protection plan, including protection systems shall apply to all work with a fall exposure greater than six (6) feet.
- 7.11.2 Work being performed from scaffold platforms greater than 4 feet shall require fall protection.
- 7.11.3 Work performed from scissor lifts shall conform to the scissor lift manufacturer’s instructions regarding fall protection.
- 7.11.4 Leading edge policy. Any employee working on any elevated work platform or ladder within six (6) feet of a leading edge cable or would guardrail system shall be tied off using a personal fall arrest system.
- 7.11.5 Fall protection is required where there is exposure within 6 feet to trenches and excavations 4 feet or greater.
- 7.11.6 “Controlled access zones,” “safety monitoring” and “warning lines” are not permitted.

### 8.0 LOCATION SPECIFIC ISSUES

#### 8.1 Security

##### 8.1.1 Property Control

Contractor or Contractor's employees shall not remove City and County of Denver property from any location without approval of the City and County of Denver Contractor Competent Person(s). This includes equipment, materials and waste. In the interest of security and protection, Contractor's employees are discouraged from bringing packages other than essentials, such as lunches, toolboxes and work clothes onto City property.

##### 8.1.2 Entrance Identification

All employees of the contractors who are on site must have an appropriate identification.

## 8.2 Driving and Parking

Contractor's employees shall park their personal vehicles in those areas designated by the City and County of Denver Contractor Competent Person(s). The City and County of Denver is not liable for these vehicles.

Contractor's personnel driving construction vehicles shall obey all speed limits and warning signs.

All vehicles on the project shall have their company identification and/or logo. Dimensions of the identification or logo shall be such that they can easily be read from 50 feet and posted on both sides of the vehicle.

## 8.3 Emergency Plan

Before beginning work on a contract, the Contractor will be provided with The City and County of Denver's location specific Emergency Plan which will address the appropriate responses and expectations of the contractor at the location at the time of an emergency. The Contractor shall comply fully with this plan, communicate it to his/her employees and include any necessary training to ensure compliance.

Report all emergencies such as tornado or fire immediately to the City and County of Denver Contractor Competent Person(s).

## 8.4 First Aid and Emergency Treatment and Response Plan

The Contractor shall select a medical provider and ambulance service to be used in case of a serious personal injury to an employee and shall notify the City and County of Denver Contractor Competent Person(s) of the selection.

Many diseases are transported through the blood and bodily fluids. Anyone who may be exposed to blood and other bodily fluids must be trained and know the proper measures of control on prevention of exposure. If the Contractor has an employee with occupational exposure to bloodborne pathogens, they shall establish a written exposure control plan designed to eliminate or minimize the employee's exposure.

## 8.5 Personal Protective Equipment (PPE)

Personal Protective Equipment shall be kept clean and in good working condition. Contractor's personnel may be required to wear the following personal protective equipment:

- 1) Full shirts that cover the shoulders.
- 2) Ankle length trousers.
- 3) Approved ANSI Z89.1 or equivalent non-electricity conductive hardhat.

- 4) Steel toed safety boots.
- 5) Approved ANSI Z87.1 or equivalent plastic safety glasses with permanent rigid side shields. Wire frames are allowed for non-electrical personnel at many locations.
- 6) Working in certain exposures or operating areas within the city may require additional PPE such as long sleeve shirts of 100% cotton or 100% wool, fire retardant clothing, respirators, face shields or fall control equipment.
- 7) Approved hearing protection in all areas with noise level over 85 dBA or where posted signs indicate.
- 8) The Contractor shall comply with The City and County of Denver “*Respiratory Policy.*”
- 9) The Contractor shall comply with The City and County of Denver “*Fall Control Policy.*”
- 10) High visibility garments shall be worn. Work being performed when low light or night conditions exist, a Type II high visibility garment shall be worn.

## 8.6 Fire Protection

### **Temporary Buildings**

The City and County of Denver Contractor Competent Person(s) shall approve the type of construction, i.e., combustible or non-combustible, and location of temporary buildings. Temporary buildings located within another building or structure shall be of either a non-combustible construction or of a construction having a fire resistance of at least 1 hour. Temporary buildings, located outside and not used for the storage or handling of flammable or combustible liquids, flammable gases, explosives, blasting agents or similar hazardous occupancies, shall be located at least 10 feet from another building or structure.

**Open Fires** are prohibited.

### **Storage and Dispensing of Flammable Liquids**

- 1) Do not store flammable liquids inside buildings unless approved by the City and County of Denver Contractor Competent Person(s).
- 2) Outside temporary/portable storage tanks of 1000-gallon maximum size shall be placed a minimum of 75 feet from buildings, construction equipment, parking lots, etc., to minimize their exposure to a fire involving the tank. Provide spill containment equivalent to the capacity of the storage tank. These tanks shall be equipped with self-closing dispensing nozzles. Containers of flammable liquid with flash points below 140 degrees F (vapor pressure not exceeding 40 p.s.i absolute at 100 degrees F) shall be provided with atmospheric and emergency relief vents equipped with flame arrestors. Tanks or drums from which such flammable liquids (by definition above) are dispensed shall be electrically grounded and shall be equipped with bonding wires to complete the grounding with the vessel into which the liquid is dispensed.
- 3) Identify tanks with the contents stenciled (4" letters) neatly on all viewable sides of the tank.
- 4) No smoking or open flames are allowed in flammable liquid storage areas. Post conspicuous and legible signs prohibiting smoking.
- 5) Provide portable dry-chemical fire extinguishers for fuel storage tanks, the size of which is consistent with NFPA Standards.

## **Refueling of Vehicles**

Refuel vehicles only in pre-designated outdoor areas. As a minimum, observe the following procedures for refueling:

- 1) Shut off the vehicle engine.
- 2) Do not smoke.
- 3) Do not over-fill fuel tanks.
- 4) When the fuel is liquid propane gas, ground the nozzle of the fuel hose to the vehicle filler pipe with a ground wire.

## **Transporting Flammable Liquids**

Use containers approved by Underwriters' Laboratories for transporting flammable liquids and clearly label them to identify the contents.

## **Portable Fire Extinguishers (To be furnished by the Contractor)**

- 1) Provide and regularly inspect portable fire extinguishers suitable for the potential hazard for equipment, office, building and work activities as per instructions issued by The City and County of Denver Contractor Competent Person(s).
- 2) Install portable fire extinguishers on all lubrication trucks and all other mobile equipment such as trucks, mobile cranes, service vehicles, etc.

## **Burning and Welding**

Perform burning and welding only in areas approved by the City and County of Denver Contractor Competent Person(s) and with an approved welding or burning permit. Generally, maintenance personnel can be responsible for issuing Welding & Burning Permits.

## **Gas Cylinder Precautions**

Observe the following precautions when using or storing oxygen, acetylene and other flammable gas cylinders:

- a) Oxygen storage areas shall be separated by at least 25 feet from combustible liquids, flammable materials or heat sources such as fire or electric lines. If impossible to comply with this 25-foot distance, then isolate the oxygen storage area by a non-combustible fire barrier with a 1/2-hour fire-resistant rating.
- b) Do not transport gas cylinders by overhead building cranes or truck cranes except in approved holder or carrier designed for this purpose.
- c) Properly vent oxygen storage areas.
- d) Gas cylinders shall be stored, used and transported vertically and adequately secured; keep valve caps in place when cylinders are not in use.
- e) Maintain regulators and gauges for oxygen and fuel in proper working order while in use. Keep oil and grease away from oxygen cylinders, fittings and hoses.

## **9.0 INCIDENT - NOTIFICATION, INVESTIGATION AND REPORTING**

The Contractor shall **investigate** all recordable injuries, high potential injury-free and property damage events. The severity of the injury or severity potential of the injury free event will determine the degree of The City and County of Denver's participation in the investigation. The City and County of Denver's Supervisor's Report of Accident or Injury may be used for accident/incident reporting.

## **10.0 ADMINISTRATION REQUIREMENTS**

Prior to starting work, all Contractor employees shall attend a Pre-Job Meeting to ensure that the employees understand the scope of the work, and EHS expectations for the work to be performed. Construction Contractors supervision shall review the applicable parts of the "Contractor Safety Plan" with the employees each morning prior to starting work.

All Contractors shall conduct Weekly Toolbox Safety Meetings with their employees that work on the site. This meeting shall reinforce the Environmental, Health and Safety requirements, review compliance and near-miss incidents, caused by non-compliance and establish procedures for present or anticipated activities.

**Attachment Three – Sample Contractor Safety Plan**

Project: \_\_\_\_\_

Job Description: *(Brief explanation of work to be performed)* \_\_\_\_\_

Location of Work: \_\_\_\_\_

Date: \_\_\_\_\_

City and County of Denver Contact: \_\_\_\_\_

Phone: \_\_\_\_\_

*Contractor:* \_\_\_\_\_

Contractor Contact: \_\_\_\_\_

Phone: \_\_\_\_\_

At Pre-Job Meeting: *(Check when complete)*

- 1. Review Environmental, Health and Safety expectations.
- 2. Review Scope of Work.
- 3. Review Site conditions.
- 4. Discuss Project Schedule: \_\_\_\_\_ Start Date: \_\_\_\_\_ Completion Date: \_\_\_\_\_
- 5. Discuss workforce requirements: *(Obtain names, insurance certificates or verification, etc. Will there be sub-contractors?)*
- 6. Discuss materials management: *(Who provides what, where to store, etc.)*
- 7. Walk through job site

Items 8 through 16 below must be completed to finish the Contractor Safety Plan

8. **Job Safety Plan:** The contractor shall develop a plan as described below that explains the procedure or steps intended to be used to complete the project. The description should be brief although it requires a thoughtful detailed look at each step of the construction process to imagine the potential environmental, safety, and health hazards that may exist. The intent is to provide “layers of protection” between the workers performing the construction, maintenance, or services and the potential hazards inherent in the work.

<b>Job Steps</b>	<b>Potential Danger</b>	<b>Measures To Eliminate Danger</b>
(Steps of the job in sequence)	(Potential accidents or hazard during job steps)	(Precautions to eliminate or avoid hazards) (Personal protective equipment)
WHO/HOW	WHAT/WHEN/WHERE	WHO/WHAT/WHEN/ WHERE/HOW

9. **Hazard Assessment List:** The checklist provides some categories to consider such as: “Will fall protection be needed for this job? Are toxic materials required for the project? Are high voltage power lines in close proximity? What PPE is required? What permits are required?”. The following Hazard Assessment Inventory checklist provides some hazard categories to consider such as:

- Electrical hazards (*Are high voltage power lines in close proximity? Will clearance permits be required?*)
- Electrical tools (*Will GFCIs be used? Are cords in good condition?*)
- Fall potential (*Will the job require working over 6 feet? Will fall protection be needed for this job? Is roof access required?*)
- Ladders (*Will ladders be required? Are they in good condition?*)
- Scaffolds (*Are scaffolds required? Are they per the standards? Erected by competent persons?*)
- Personnel lifts (*Will they be used? Are they per the standards? Inspections?*)
- Digging/Excavation (*Are permits required? Will trenches be deeper than five feet? Will shoring be required? Competent persons?*)
- Confined Spaces (*Are there any? Does the contractor have equipment? Competent persons?*)
- Atmospheric Conditions (*Is there exposure to heat stress, poor ventilation, etc.?*)
- Lighting (*Is the area properly illuminated? Will night work be required? Temporary lighting?*)
- Hazardous Materials (*Will the work be performed in an area where hazardous materials are present? Have all MSDS been obtained and employee communications and training provided?*)
- Hazardous Materials (*Will hazardous materials be brought on site by the contractor? Will MSDS be provided and communicated?*)
- Noise (*Will the job be in a high noise area? Will the work generate high noise?*)
- Dust (*Will dust be a concern? Will the work generate dust? Are respirators required?*)
- Burning and Welding (*Will the work require the use of welding and cutting equipment? Is the equipment per the standards? Are permits required? Are fire extinguishers available?*)
- Barricading (*Will the job require barricades? Will lights be required?*)
- Portable Equipment (*Will saws, mixers, washers, etc. be used?*)
- Mobile Equipment (*What are the inherent traffic hazards to pedestrians? What equipment will be used on this project? Does it meet the standards? Inspections?*)
- Personal Hygiene (*Are portable toilets to be used? Where will workers eat?*)

**SAMPLE JOB SAFETY PLAN**

**Project Description:** \_\_\_\_\_

**Prepared By:** \_\_\_\_\_ **Approved By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

JOB STEPS	POTENTIAL DANGER	MEASURES TO ELIMINATE DANGER
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

10. **List safety equipment required:** (side shield safety glasses, hard toe shoes, hard hats, fall protection, hearing protection, face shield, gloves, goggles, respirator, radios, fire extinguishers, Lockout-Tagout locks/tags, barricades, air monitors, ladders, trench shoring) \_\_\_\_\_

11. **List special tools required:** \_\_\_\_\_

12. **List special equipment required:** \_\_\_\_\_

13. **List Permits required:** (confined spaces, digging/excavating, roof access, high voltage clearance, welding/burning, asbestos removal, and painting)

_____	_____
_____	_____

14. **List Training required:** (confined space, tag-lock-try, fall prevention, haz-mat, excavation, mobile equipment, hearing, respiratory protection, low voltage electrical hazards, high voltage electrical hazards, environmental)

_____	_____
_____	_____

15. **List Competent Persons (Signature) and Area of Competency** (excavation, high voltage, asbestos removal)

_____	_____
_____	_____

16. **List Participants in Pre-Job Meeting:** (Although the City and County of Denver and the contractor may have worked jointly to complete this information, the contractor has a contractual obligation for compliance with this document.)

<u>Print Name</u>	<u>Signature</u>	<u>Date</u>
_____	_____	_____
_____	_____	_____

## Attachment Four ENVIRONMENTAL HEALTH AND SAFETY REVIEW

<b>Project:</b>				<b>Project Number:</b>				<b>Phase:</b>				
<b>Department:</b>				<b>Location:</b>								
New Installation <input type="checkbox"/> Current Installation Renovation, Modification <input type="checkbox"/> Catastrophic Situation? <input type="checkbox"/>												
<b>Date of EHSR:</b>						<b>Phase Completion Date:</b>						
						<b>Project Turn Over Date:</b>						
<b>Person(s) Performing Review:</b>												
<b>1.0 Identify Potential Hazards</b>												
		YES	NO	NA		YES	NO	NA				
	High Pressure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Process Standard Applicable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Extreme Temperature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	High Voltage/Current?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Flammable/Combustible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are preventive maintenance schedules established where needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Corrosive Liquids?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Toxic Materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Unstable Reactions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mechanical Pinch Points?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Sharp Cutting Edges?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Stored Energy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Prior to purchasing, surplus, or scrapping equipment, has inspection been conducted to identify PCB, asbestos, or RCF containing materials or other hazardous wastes?									<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:												
<b>2.0 Lock/Tag/Isolation</b>												
		YES	NO	NA		YES	NO	NA				
	Potential for Stored Energy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are lock, tag, & try procedures used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Exposure to potentially hazardous energy exists?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have written lock, tag, and try procedures been developed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Are electrical interlocks used in lieu of lock, tag, & try procedures during service/maintenance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all lockout points identified and labeled; i.e., electrical disconnects, shutoff valves?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Are preventive maintenance schedules needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have employees who apply lock, tag, and try procedures received lock, tag & try training? Proficiency training?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Does exposure to potentially hazardous energy exist during service and maintenance of this equipment, machine or process?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have energy isolation devices been designed to accept a lockout device for all energy sources (hydraulic, pneumatic, electrical, and mechanical) on new equipment or existing equipment, which is undergoing major renovation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Are provisions made for group lockout applications?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has Lockout/Tagout devices been ordered. Are they appropriate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Has proficiency training been conducted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has affected employee training been conducted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Has lockout / tagout isolation devices been strategically designed for convenience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>								
Comments:												
<b>3.0 Electrical Hazards</b>												
		YES	NO	NA		YES	NO	NA				
	Do installations meet NEC requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are electrical circuits labeled at source and equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Are exposed conductors guarded or insulated as required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are operator controlled voltages 120V or less and isolated from power source voltages?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Are switches properly labeled as to function?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are motor overloads correctly sized?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Are motor and equipment enclosures selected for the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do all electrical motors and fittings meet classified area requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Is proper grounding provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are alarm points adequate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Are portable cords in safe condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Will current produce EMF field that could concern pacemaker wearers? Signs posted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Is voltage and current rating of portable power cord sufficient for its application?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are voltages above 240 volts identified and interlocks provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Are connectors a dead-front type?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is emergency stop easily accessible and labeled?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Is panel or switchgear accessible and it's lighting adequate for operation of panel?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all portable electric tools double insulated or properly grounded?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Is there a minimum of 3 ft. of working space?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does equipment use voltage >600 Volts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
	Are indicating lights and alarms provided where needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are personnel who are required to operate high voltage electrical equipment qualified per	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

				NEC?			
Does equipment and panel doors swing 90°?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have personnel been trained in electrical high voltage maintenance safety work practices?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do switches and contacts break all non-neutral conductors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has electrical installation been approved by Facilities Engineering?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Can all power switchgear be locked and tagged out?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have controls been designed to be fail-safe?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are ground fault interrupters in place where use is required by code?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If this project involves >250 volts, have Facilities Engineering been consulted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have persons been trained in Electrical Safety Related Work Practices?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Comments:							
<b>4.0 Mechanical Hazards</b>	YES	NO	NA		YES	NO	NA
Are Pinch Points guarded?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is unit mechanically stable or clamped?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Exposed moving parts checked for balance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are shutdown interlocks and/or mechanical stops provided when necessary?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sharp edges guarded?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have operating mechanisms been designed to fail-safe?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are exposed moving parts guarded?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have guards been properly color-coded?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has Maintenance access been provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are utility knives required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has proper lubrication been selected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are proper lifting devices being used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:							
<b>5.0 Pressure Hazards</b>	YES	NO	NA		YES	NO	NA
Vacuum?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do pressure vessels have current inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Compressed air and gases > 120 psig?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are flexible pressure lines secured to protect personnel in case of failure?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gas/Liquid cylinders? Secured properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have non-destructible type safety relief devices been tested at set point condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
High-pressure > 150 psig?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are regulators compatible with gases used?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are cylinders stored & used in upright position?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are valves easily and safely accessible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are gauges properly located, properly calibrated, and compatible with their application?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have excess flow shut off valves been installed where a ruptured hose may cause injury?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do gauges have blowout backs and safety fronts?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are cylinders labeled with appropriate hazard warning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there adequate relief valves installed near potential sources of over-pressure or pressure build up?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are flammable cylinders stored outside or in gas cabinet vented to outside?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are relief devices and gauge blowouts positioned so that discharge does not constitute a safety or health hazard if they blow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have check valves been installed where necessary to hold a position or clamp in event of pressure loss?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there 25 ft separation or noncombustible barrier between flammable gas cylinders and oxygen or sources of ignition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Comments:							
<b>6.0 Chemical Hazards (gas/liquid/solid)</b>	YES	NO	NA		YES	NO	NA
Has an industrial hygienist performed an exposure assessment? Qualitative? Quantitative?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are appropriate engineering controls designed into the process: Material substitution Equipment isolation Equipment enclosure Localized exhaust ventilation General ventilation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have all respirator users completed respirator training, fit testing and medical clearance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there tasks where respiratory protection is indicated, and can the exposures associated with these tasks be controlled through engineering measures, thus eliminating the need for respiratory protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Flammables/Combustibles?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have new materials/MSDS been submitted the location?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oxidizers? Stored away from heat and incompatible materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there a risk for contamination of personal garments, thus necessitating supplied work clothing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unstable or explosive reactions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are eating, drinking, and storage of food or tobacco allowed in the work area where toxic chemicals are present?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corrosives?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have employees been trained in or made aware of the potential chemical hazards with process or materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is good housekeeping practiced to minimize airborne material generation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are adequate engineering controls employed to reduce exposures below the occupational	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

				exposure limit?			
Have employees been trained in the proper use of personal protective equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If local exhaust discharges are re-circulated to the workplace, does the system comply with the design and operational criteria specified by the American Conference of Governmental Industrial Hygienists (ACGIH)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the need for ventilation systems been determined?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are there spill reporting procedures for spills greater than 5 gallons?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are materials of construction compatible with reactants and products?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are unintentional ignition sources eliminated around flammable liquids?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there provisions to prevent chemicals from reacting with others chemicals in a nearby operation or in a common exhaust system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is ventilation adequate to reduce flammable concentration below 10% of LEL?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is appropriate spill kit nearby and are personnel trained in its use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are eyewash and shower near corrosive material use, marked and functional?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are electrical sources near flammable liquids are rated appropriately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are valve fittings and flanges compatible with chemicals in use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are chemically resistant gloves selected in view of chemical permeation characteristics?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:							
<b>7.0 Noise</b>	YES	NO	NA		YES	NO	NA
Have the noise sources and exposures associated with this project been quantified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are noise control features included in equipment design and selection in order to maintain employee exposures below 85 dBA as an 8-hour average?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:							
<b>8.0 JHA/MSDS Training</b>	YES	NO	NA		YES	NO	NA
Have safe operating procedures been written?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have personnel been properly trained on equipment operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are MSDSs available for each hazardous material?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has an inventory of all hazardous materials involved in the project been attached to ESHR?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have preliminary Job Safety Analyses been prepared for each job task?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is protective equipment adequate for each job task? Has required personal protective equipment been listed in the JSA? Is the specific type of PPE or PPE material specified on the JSA? (i.e. gloves)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has an inventory of applicable JHAs been attached to this EHSR?							
Have employees received training in Start-up, Shutdown, and Emergency Shutdown?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does technician and project engineer know emergency shutdown procedure? Where appropriate include on Emergency Pre-Planning Form.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:							
<b>9.0 Mobile Equipment</b>	YES	NO	NA		YES	NO	NA
Will the location of equipment or processes increase pedestrian and vehicle interface?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have all fork truck drivers completed the required medical protocol and been medically cleared to operate fork trucks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are any blind spots created?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have all fork truck drivers satisfactorily completed training?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Have mobile equipment traffic flow patterns been defined and marked?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have records of training been sent to the appropriate person(s)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there adequate maneuvering room for industrial trucks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has the pre-use vehicle inspection program been initiated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Will there be a need for a battery charging station?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the truck designed for the work environment? Dust? Flammables/Combustibles?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the battery charging station meet regulatory requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has speed governors been installed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is there a need for signage, mirrors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has a capacity evaluation been conducted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Will operators have to work adjacent to aisle ways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are industrial trucks equipped with proper warning devices?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are stop signs and other visuals provided as needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Driver restraint system installed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does process involve new or modified roadways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are electric fork trucks equipped with battery restraint?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:							
<b>10.0 Cranes/Hoists</b>	YES	NO	NA		YES	NO	NA
Are lifting devices the right size for the job?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has the pre-use crane inspection program been initiated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Will equipment limit operator or employee visibility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have all crane operators satisfactorily completed training?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Ample room for operators to work in an area free of crane/hoist hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are lifting devices (chain slings, cables, cranes, ropes, pulleys) the right size for the job? On a monthly inspection schedule? Capacities identified? Inspection records available?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:								
<b>11.0</b>	<b>Area Hazards</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>		<b>YES</b>	<b>NO</b>	<b>NA</b>
	Is area free from tripping hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there safe access to all valves, fittings, and electrical switches for operation and maintenance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are warning signs adequate in number and clarity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all automatic shutdown devices accessible and sufficient to protect and inform personnel and equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are barricades or shields installed to prevent injury and protect equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are all remotely operated shut-off valves and switches available and conspicuously labeled for emergency shutdown?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Have sharp or protruding edges been rounded or padded?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are warning labels present where safe usage requires observance of precautions not obvious to user?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are tools in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is floor load rating adequate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:								
<b>12.0</b>	<b>Fall Prevention / Protection</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>		<b>YES</b>	<b>NO</b>	<b>NA</b>
	Has the need to access heights been minimized or eliminated by design?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are fixed platforms and stairways provided with adequate top rails, mid-rails, toeboards?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Has a roof plan been developed for jobs on any roof?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are ladders, platforms and pits guarded?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Has fall arrest equipment been purchased?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Has fall protection formal and proficiency training been conducted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has a fall protection equipment inspection program been established?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the 100% fall prevention / protection requirement for construction documented / met?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does work involve exposure to heights 8 ft or higher or lower heights where hazardous circumstances are present? Has safe access been provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Have open floor holes been properly protected?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Can fixed ladders be substituted for stairs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:								
<b>13.0</b>	<b>Confined spaces</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>		<b>YES</b>	<b>NO</b>	<b>NA</b>
	Are confined spaces present or created by this installation/modification?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has a confined space assessment been performed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Need to enter confined spaces been minimized by design?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have all identified confined spaces been communicated to Safety Professional?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Has a SOP been created?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are the confined space entry procedures documented and employees trained appropriately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:								
<b>14.0</b>	<b>Fire Protection &amp; Prevention</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>		<b>YES</b>	<b>NO</b>	<b>NA</b>
	Has an Emergency Pre-Planning Form been completed and forwarded to the appropriate person(s)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the fixed extinguishing system appropriate for the hazard?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are two emergency routes required & available?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If a water sprinkler system is involved, has existing sprinkler protection been installed below the ceiling tiles?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is fire detection adequate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are hydraulic reservoirs with a capacity of greater than 100 gallons present?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the fire alarm audible?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Where required to be used are the hydraulic fluids approved fire resistant hydraulic fluids?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are sufficient fire extinguishers nearby and of the proper type?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hydraulic system protected by sprinkler system? System provided with fire actuated means of shutting of the pump?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are personnel trained in their use	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does this project involve the installation of new fixed fire protection system?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is there proper access for fire fighting equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does this project result in an increase or change in room occupancy, storage of flammables, new roof or wall openings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:								
<b>15.0</b>	<b>Review General Hazards</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>		<b>YES</b>	<b>NO</b>	<b>NA</b>


	Are work permits enforced if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is emergency power supply available if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is emergency air supply available if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are special tools available if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:								
<b>16.0</b>	<b>Potential Hazards to Personnel</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>		<b>YES</b>	<b>NO</b>	<b>NA</b>
	Are personnel being protected from pinch points?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has PPE Hazard Assessment been conducted/updated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is Personal Protective Equipment applicable & adequate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have personnel been properly trained in the handling of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Are operating practices documented and available?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are emergency procedures posted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:								
<b>17.0</b>	<b>Ergonomics / Human Factors</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>		<b>YES</b>	<b>NO</b>	<b>NA</b>
	Has the design of workstations, equipment and tools been reviewed from an ergonomic perspective?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the process/equipment generate vibration?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is manual material handling minimized?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Will the operator need to perform repeated tasks that require their arms to be raised above shoulder level?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Hard edges impinge on operators' hands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have hand tools been selected which maintain the wrist in an un-deviated position?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Does any task involve repetitive motion of the upper extremities > 10% per day?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have manually lifting hazards been identified? Are mechanical assists planned?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Can the workplace be designed with adjustable work height, standing/sitting, and illumination alternatives?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Can the lifting be accomplished without overextension of the body?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Has the frequency and vertical lifting distance of manual lifting operations been reduced to a minimum?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Will there be a potential for significant exposure to heat stress?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Do operators maintain the same standing or sitting posture for the entire workday?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there a need to heat stress by reducing the physical demand of the tasks, and / or exposure to high temperatures, humidity or radiant heat?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:								
<b>18.0</b>	<b>Wastewater</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>		<b>YES</b>	<b>NO</b>	<b>NA</b>
	Will the project produce additional wastewater or new components in a discharge stream?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Will best available control technology (BACT) be utilized?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Has wastewater been characterized to quantify pollutants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the process require a discharge permit notification to EHS?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Has an NPDES Permit modification been requested?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the process generate non-contact cooling water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the wastewater being discharged to waste treatment plant?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the process generate contact cooling water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Is the wastewater being discharged into sanitary sewer, non-contact cooling water, stormwater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If wastewater will be discharged, estimate quantity and mode of discharge.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Can waste treatment plant handle volume and composition of wastewater discharge?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Have state construction permits been requested?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:								
<b>19.0</b>	<b>Solid Waste</b>	<b>YES</b>	<b>NO</b>	<b>NA</b>		<b>YES</b>	<b>NO</b>	<b>NA</b>
	Will this project result in additional solid or hazardous waste? All processes & wastes identified and generation rates estimated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has location Safety professional been notified of new hazardous waste stream?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Have waste products been characterized to determine if they are classified as hazardous or residual by regulatory criteria?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the process involve RCRA hazardous waste treatability studies or TSCA treatability studies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Does process involve any form of onsite waste treatment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is the operating group familiar with procedures established to properly dispose of these wastes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Has a hazardous waste accumulation area or satellite area been identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is waste segregation needed to eliminate potentially hazardous reactions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Have all employees managing hazardous wastes and their immediate supervisor been trained in RCRA within the past 12 months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If large amounts of waste will be generated, have provisions been made to secure extra roll-offs, disposal bins, storage tanks, etc?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Has compliance with state and federal restrictions on handling, storage, transportation, and disposal been considered?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has the location prepared the necessary Form U, Form S, etc. and submitted to appropriate TSDF facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Have training records been sent EHS Department?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Will there be radioactive wastes generated from this process/project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Is asbestos or RCF involved in the process?			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does process/equipment involve PCBs?			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments:											
<b>20.0</b>	<b>Air Emissions</b>	YES	NO	NA		YES	NO	NA			
	Will this project be: a new source, a modified source, or a reconstructed source Under federal or state regulations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Have potential air emissions from the process/project been identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Will this project result In an increase in emissions At particulates, SO2 ,NOx,F, VOC, CO or other? specify pollutant (s) and rate (tons per year)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Has the need for air pollution control equipment, air permit applications, or exemption application been reviewed by Environmental Health Department?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Are appropriate regulatory constraints achievable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Is the area classified as attainment or non-attainment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Will the source fall below the de minimis (insignificant) limits established by EPA?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Does the emission exceed CERCLA or SARA TITLE III Reportable Quantity (RQ) threshold for a particular pollutant?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Has a new source review application been submitted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Has record keeping for regulated emission sources been determined?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Have all possible exemptions, including the Bubble Concept, tradeoffs, and offsets been considered and utilized?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Has a Renewal permit application request been submitted to Environmental Health Department prior to modifications being made?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Will ambient air monitoring be required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Are there Hazardous Air Pollutants (HAPS) present?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Have air release reporting procedures been reviewed by Environmental Health Department?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Has a New permit application request been submitted to Environmental Health Department in a timely manner to ensure receipt of permit from NJDEP prior to construction & operation of equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Comments:											
<b>21.0</b>	<b>Aboveground Storage Tanks</b>	YES	NO	NA		YES	NO	NA			
	Will there be provisions for secondary containment systems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Will the spill containment be lined?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Are the tanks equipped with high level alarms or gauges?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Will there be provisions for loading and unloading spill containment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Are there any storage tanks with a capacity of at least 250 gallons and more than 90% of the volume of the tank is above the surface of the ground?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Is the tank inspection program established?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Comments:											
<b>22.0</b>	<b>Release, Prevention, Control &amp; Countermeasure Plan and Spill Containment</b>	YES	NO	NA		YES	NO	NA			
	Are there > 5 gallons of hazardous materials stored in any one area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Does the hazardous material storage area have spill containment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Comments:											
<b>23.0</b>	<b>Emergency Planning and Community Right to Know (SARA)</b>	YES	NO	NA		YES	NO	NA			
	Is inventory of hazardous materials up to date?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Does project/process use Extremely Hazardous Substances on SARA 302 list?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Does the amount of Extremely Hazardous Substances exceed the Threshold Planning Quantity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Are the process operators knowledgeable in CERCLA/SARA reportable quantities for materials whose release requires notification?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Are SARA 311 reports prepared and submitted per regulatory requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Will the project/process use more than 10,000 lb. of any material?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
	Are the project/process chemicals on the SARA 313 list of Toxic Chemicals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Usage records are being kept on materials more than 10,000 lbs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Comments:											

<b>24.0</b>	<b>Pollution Prevention/Waste Minimization</b>	YES	NO	NA		YES	NO	NA
	Has recycle/reuse of wastewater been examined to minimize wastewater volume?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has chemical substitution been examined to eliminate or minimize problem pollutants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Has the process been scaled down to minimize the amount of wastewater generated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does process/project comply with the City's waste minimization policy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments:

<b>Action Items:</b>		(Project Leader has overall accountability to see that action items are completed.)		
	Provide detailed description of action item.	Estimated Completion Date	Person Responsible	Actual Completion Date
a.				
b.				
c.				
d.				
e.				
f.				
g.				

	Contractor Preliminary Safety Hazard Assessment Form		Requisition# / P.O. #:	
			Date:	Page:
Area:	Building:	Room:		
Project Title:		Agency/Department:		
Summary of Work Scope: Summarize the activity/task being evaluated.				

Sections of Safety & Health Management Plan that apply to all Contractor work:  
 Program Policy, Pre-job Planning, Safety Orientations, Safety Meetings and Inspections, Hazard Communication,  
 Recordkeeping and Responsibilities, Housekeeping

HAZARDS	HAZARD CONTROL METHODS AND MITIGATION
<input type="checkbox"/> Asbestos Containing Materials	
<input type="checkbox"/> Beryllium	
<input type="checkbox"/> Biological Hazards	
<input type="checkbox"/> Chemical Hazards	
<input type="checkbox"/> Contaminated Duct Work	
<input type="checkbox"/> Cold Stress	
<input type="checkbox"/> Compressed Gases	
<input type="checkbox"/> Confined Space	
<input type="checkbox"/> Control of Hazardous Energy	
<input type="checkbox"/> Cryogens	
<input type="checkbox"/> Dust Disturbing Activity	
<input type="checkbox"/> Electrical	
<input type="checkbox"/> Electrical and/or Magnetic Fields	
<input type="checkbox"/> Elevated Platforms	
<input type="checkbox"/> Environmental Hazards	
<input type="checkbox"/> Ergonomic	
<input type="checkbox"/> Excavations	
<input type="checkbox"/> Exposed/Rotating Machinery	
<input type="checkbox"/> Fall Hazards	
<input type="checkbox"/> Falling Objects	
<input type="checkbox"/> Floor And Wall Openings	
<input type="checkbox"/> Forklift	
<input type="checkbox"/> Hazardous Waste Activities	
<input type="checkbox"/> Heat Stress	
<input type="checkbox"/> High Noise (Acoustic)	
<input type="checkbox"/> Hoisting & Rigging	
<input type="checkbox"/> Illumination	
<input type="checkbox"/> Ladders – Portable	
<input type="checkbox"/> Lead	
<input type="checkbox"/> Lasers	
<input type="checkbox"/> Machine Guarding	
<input type="checkbox"/> Powder Actuated Equipment	
<input type="checkbox"/> Powered Hand Tools	
<input type="checkbox"/> Radiation/Radioactive Materials	
<input type="checkbox"/> Respiratory Hazards	
<input type="checkbox"/> Scaffolds	
<input type="checkbox"/> Ultraviolet	
<input type="checkbox"/> Walking/Working Surfaces	
<input type="checkbox"/> Welding	
<input type="checkbox"/> Working On Or Accessing Roof	

<input type="checkbox"/> Other	
Safety Hazard Assessment Performed by (Last Name, First Name, Middle Initial)	Signature/Date:
Safety Hazard Assessment Reviewed by (Last Name, First Name, Middle Initial)	Signature/Date: