2019
CONSTRUCTION SAFETY MANUAL

RAHM EMANUEL
Mayor
City of Chicago

JAMIE L. RHEE
Commissioner
Chicago Department of Aviation

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INTRODUCTION

The Contractor shall have sole and complete responsibility for the implementation of a worksite safety plan. The Contractor shall take necessary precautions for the health and safety of employees and fully comply with applicable provisions of:

- All sections of 29 CFR 1926-OSHA Construction Industry Safety and Health Standards 29 CFR 1910-OSHA General Industry Safety and Health Standards
- FAA Advisory Circular 150 Operational Safety on Airports During Construction 5370-2G
- National Fire Protection Association codes
- City of Chicago Fire Prevention Code
- National Electrical Code, all applicable American National Standards Institute standards
- City of Chicago Building Code
- The CDA Construction Safety manual
- All standards or codes referred to in the listed document
- Any other applicable standards

Due to the changing nature of health and safety regulations, and because new information is constantly becoming available, this plan is subject to change without notice.

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EXHIBITS

I. GENERAL DEFINITIONS

A. Airport means O'Hare International Airport and Chicago Midway Airport.

B. CDA means the Chicago Department of Aviation.

C. CAS means the Chicago Airport System, which includes Chicago O'Hare International Airport and Chicago Midway International Airport.

D. Designated Representative means Owner's Representative or OR of the Chicago Department of Aviation.

E. Competent Person means one who is trained to identify existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them. Such persons will be available on site whenever work requiring a Competent Person is being done (scaffolding, excavation, confined space, fall protection, respiratory protection, or any other operation identified by CDA Safety).

F. Construction Manager or CM means that entity identified in Part III, Division I of the Contract Documents (typically in section 01010), the entities that the City has contracted with to provide construction management services for the Chicago Airport System.

G. Contractor means the employer awarded the contract to complete a project from the owner through their Construction Manager.

H. Contractor's Safety Program means the program, covering worksite safety and property damage prevention that the Contractor must submit to the Chicago Department of Aviation as required by General Conditions Article XIV.B.1.a.

I. Contractor's Safety Representative means the person assigned by the Contractor to be the Safety Representative for the project.

J. Employee means any person or persons on the payroll of any participant that is under contract with the Owner through the Construction Manager or the Contractor.

K. Jobsite means the location where work is expressly required under the applicable contract documents.

L. CM's Manager of Safety for a Project means the person or entity who is notified in writing he (or it) has been so designated by CDA Safety.

M. Participant means the Contractor, Subcontractor or their employees, whom are under contract with the Owner through the Construction Manager.

N. CDA Safety means City of Chicago / CDA Safety Department Representative.

O. Subcontractor means any person or persons, partnership, joint venture, corporation, or other entity, whom performs work at the jobsite, under contract to either the Contractor or one of its Subcontractors.

P. Vendors, Suppliers and Materials Dealers means those persons or entities and/or their employees, whose activities on the jobsite are solely for the purpose of loading, hauling and/or unloading of materials or equipment at or from the jobsite.

Q. Onsite means the location where the work is in progress.

II. STATEMENT OF POLICY AND INTENT

The Chicago Airport System Safety Manual reflects a desire by the Chicago Department of Aviation to prevent injuries to persons and to prevent damage to property and equipment.

The CDA considers no phase of construction or administration within the CAS of greater importance than accident prevention and asserts that accidents which result in personal injury and damage to property and equipment represent needless waste and loss. It shall be the policy of the CAS to conduct all operations safely and thereby prevent injuries to persons and damage to property.

Planning for safety shall start with the design and continue through purchasing, fabrication and construction in all phases of the CAS projects. All practical steps shall be taken to maintain a safe place to work. The Contractors must accept the responsibility for the prevention of accidents on work under their direction and shall be responsible for the thorough safety training of their employees.

The objective of this policy is to establish throughout the entire CAS system the concept that the prevention of accidents and protection of property is most important and therefore shall receive top priority, support and participation.

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III. PROGRAM OBJECTIVES

The CAS Construction Safety Manual has been created to coordinate the elimination or reduction of hazards and risks associated with the construction of the CAS projects, prevent accidents, reduce employee injury, prevent damage to property, promote maximum efficiency, and affect savings by the reduction of unplanned business interruption.

Only active participation by the CAS and the Contractor's supervisory staffs and employees will make the program effective. Active participation will also assist the participants in performing the following tasks:

- Providing a safe environment for employees to perform high quality work.
- Using safety planning as a tool to reduce bodily injury and property damage.
- Providing inspections to locate and abate unsafe conditions and practices.
- Protecting the public and property in the area of all staging and construction sites.
- Maintaining mandatory personal protective equipment programs.
- Using incident investigation information to abate deficiencies and increase controls in order to prevent similar accident recurrence.

NOTE: The CAS Construction Safety Manual does not supersede the Contractor's Safety Program except where the CAS Construction Safety Manual exceeds the requirements of the Contractor's program. The Contractor shall have first and foremost responsibility to enforce the more stringent safety program.

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IV. RESPONSIBILITIES

A. CHICAGO AIRPORT SYSTEM

The CDA Safety Staff shall coordinate safety on Chicago Airport System projects. The CM's Manager of Safety shall serve as liaison to the Managing Deputy Commissioner of Safety / Security or their designee. The CM's Manager of Safety shall be responsible for monitoring and coordinating the safety and property damage prevention program on projects the CM is assigned.

The CM's Manager of Safety shall assist the CDA Commissioner of Safety with administration of the policies and procedures as established by this Construction Safety Manual.

The CM's Manager of Safety shall monitor and evaluate the Contractor's Safety Program.

The CM's Manager of Safety shall review the Contractor's Safety Program for compliance with safety regulations, property damage prevention and this written program.

The CM's Manager of Safety shall provide monitoring of the Contractor's safety orientation program for Contractor's employees which includes a review of specific project issues, including but not limited to:

- Hazards present in their work assignments and the general work area.
- Instruction in the proper selection and use of personal protective equipment.
- Methods of reporting any unsafe conditions/practices the workers may encounter.
- Methods of reporting injuries and or illness and/or property damage incidents.
- Assisting the City Risk Manager with administration of Owner Controlled Insurance Programs when used for the project.

The CM's Manager of Safety may collect and maintain copies of records with regards to safety and insurance as required by this program, and shall produce periodic reports concerning the performance of the Contractors engaged in CAS projects.

The CM's Manager of Safety may conduct regularly scheduled meetings of all Contractors/subcontractors to review and discuss safety and property damage prevention. This may be a meeting dedicated exclusively to those subjects or as an integral part of the routine scheduling/planning meetings. A safety and property damage prevention meeting must be held at least once a month and minutes of the meetings shall be kept.

The CM's Manager of Safety and the Chicago Department of Aviation Safety Manager shall function as part of the project job planning team with emphasis on safety and property damage prevention.

The CM's Manager of Safety or CM's Safety Staff shall inspect construction sites for unsafe conditions or practices, and document that corrective action is taken where deficiencies are found.

The CM's Manager of Safety shall forward the results of monitoring and status of corrective action to the CDA Safety Department.

The CM's Manager of Safety may develop and implement a program of safety, training and education for all the Construction Manager's team members and/or employees. This includes initial orientation, weekly safety briefs, and periodic special sessions. The CM's Manager of

Safety may act as a resource for providing material and assistance to Contractor's designated Safety Representative in the performance of safety training and education.

The CM's Manager of Safety may assist the CDA, contractors and subcontractors in the investigation of all OSHA recordable incidents and other emergencies, obtain accident/investigation reports and forward all related copies to Chicago Department of Aviation Safety Department. Upon notification of an incident, the CM's Manager of Safety will immediately notify the CDA Safety of the incident.

In the event of imminent danger situations or when necessary to enforce mandatory safety or property damage prevention requirements, the CM's Manager of Safety may temporarily interrupt the work. The interruption of work activities shall immediately be communicated to the CDA Safety Department. CDA Safety will direct any extended work stoppage and will determine when work may restart.

B. CONTRACTOR RESPONSIBILITIES

The Contractor shall designate a Safety Representative for the project. This person shall be onsite at the project whenever work is being performed at the site or any staging area on Airport property. Dual roles (i.e. Supervisor/Safety Representative) are unacceptable. Multiple shifts will require additional safety representatives. The Safety Representative shall have project safety as his or her exclusive responsibility and not have any other responsibilities regarding this project. The Contractor must provide the Safety Representative with the authority necessary to ensure the safety of Contractor's and Subcontractor's employees and property. Among other responsibilities concerning the project safety, the Safety Representative shall provide: safety training, safety orientation, safety inspection, and conduct tool box safety meetings.

The Contractor shall provide the resume of its proposed Safety Representative to the CM's Manager of Safety review and approval. If the proposed Safety Representative is not approved, the Contractor must propose another individual for approval. The Safety Representative shall, as a minimum, have completed an OSHA 30 hour "Safety and Health Standards for the Construction Industry" course or equivalent course. In addition, the Safety Representative must have completed a First Aid/CPR course within the last twelve (12) months. The Safety Representative must also have a minimum of three (3) years of verifiable safety experience on construction projects developing safety programs, providing safety orientation, and conducting safety inspections.

Prior to the start of the Project, a representative from the Contractor and representatives of its Subcontractors, the Contractor's Project Manager, the City's Construction Manager and the City's Resident Engineer shall attend a mandatory Pre-Construction Safety Orientation meeting on subjects outlined by the CM's Manager of Safety.

The Contractor's Safety Program must be submitted, in writing, to the CM's Manager of Safety for review. The Contractor's Safety Program must, as a minimum, include:

1. REVIEW OF SAFETY PROCEDURES AND OTHER REGULATIONS

   The Safety Representative shall review procedures, regulations and industry standards applicable to the processes, equipment, materials, and procedures used at the worksite in order to evaluate whether hazards are present.

2. REVIEW OF INTERNAL RECORDS AND INFORMATION

The Safety Representative shall review internal records of accidents, injuries, occupational illnesses, near-miss accidents, and safety violations to detect relationships between job hazards and recorded mishaps.

3. REVIEW OF OUTSIDE SOURCES

The Safety Representative shall review State and Federal accident and illness statistics, highlighting areas that may uncover hazards in the organization.

4. JOB HAZARD ANALYSIS

The Safety Representative shall make an analysis of each phase of the project to determine what hazards exist in connection with the procedures, processes, materials, and equipment used to perform them. A written job hazard analysis shall be prepared for each phase prior to the work beginning. A copy of the written analysis shall be forwarded to the CM's Manager of Safety.

5. CORRECTION OF JOB HAZARDS

Job hazards discovered in the course of a Job Hazard Analysis shall be referred to the appropriate supervisor for consideration. If a hazard can be corrected by a change in practices or procedures, appropriate modifications shall be instituted at the earliest possible time.

6. INSPECTION

The Contractor shall have a program of jobsite inspections. Inspections shall be conducted, with the focus to identify job hazards. Inspections shall be made at least weekly, and at least daily on FAA funded projects. Inspections records shall be retained for the duration of the project and shall be stored onsite. A copy of inspection reports shall be forwarded to the CM's Manager of Safety, no later than Monday of the week following the inspection.

7. EMPLOYEE REPORTING

Contractor's employees shall be instructed to report any and all safety deficiencies, which they may observe. The Contractor may use a specified hazard reporting form.

However, employees may report hazards by any available method. Oral reports shall be recorded in writing by supervisors. Reports may be submitted anonymously, at the employee's option. The Contractor shall advise all employees that they invite reports of hazards and pledges to take no disciplinary action against any employee as a result of the employee's submission of a hazards report. Employees may submit hazard reports to their supervisor or directly to the safety committee. Supervisors are directed to route all hazard reports to the CM's Manager of Safety, along with what corrective action has been taken.

8. INCIDENT INVESTIGATION

Every incident shall be investigated by a supervisor or manager, and an investigative report compiled on a specified from (a copy is available from the CM's Manager of Safety). (See Exhibit V-4). Incident investigation reports shall be forwarded to the CM's Manager of Safety along with recommendations for corrective action, no more than twenty-four 24) hours after the occurrence. The Contractor shall verbally notify the CM's Manager of

Safety of the accident, immediately. Upon notification from the Contractor of an incident, the CM's Manager of Safety will notify the CDA Safety of the incident.

With regard to hazards that are uncovered by periodic inspections, reported by employees, or discovered as result of an incident, the person receiving initial notice of the hazard, whether an inspector, manager, or safety committee member, is required to record the name of the person assigned responsibility for correction on the form on which the hazard is recorded and to forward copies of any such recommendation to all persons so named. All recommendations shall be followed up within one week. Failure on the part of the person assigned the responsibility for correction to take corrective action within the established time limit shall be reported immediately to the responsible person's supervisor, and the CM's Manager of Safety.

Completed inspection documentation, employee hazard reports, and accident investigation reports shall remain open before the safety committee and shall not be filed away until all corrective measures have been completed and documented.

In the case of imminent danger, hazards that cannot be corrected safely without exposing employees to danger, supervisory personnel are instructed to evacuate all nonessential personnel from the area of the hazard until such corrective measures have been completed and the area rendered safe.

9. CONDUCT EMPLOYEE TRAINING

All Contractor employees shall be required to take part in safety and health training. Training sessions on general safety principles and practices shall be held for all Contractor employees. Individual Contractor employees are assigned for additional training that will alert them to the specific hazards that go with their particular job assignments and instructions given them in appropriate methods and procedures for the prevention of illness and injury.

10. ORIENTATION OF ALL CONTRACTOR EMPLOYEES

General safety training shall be conducted using published materials and materials developed by the Contractors safety staff.

Safety training in specific job hazards is conducted using safe practices codes developed through job hazard analyses.

Training shall be conducted by qualified safety personnel or by supervisors with extensive experience in the identification, prevention, and control of job hazards.

Contractor Employees shall receive additional training whenever they are assigned to a new task for which training has not been administered and whenever new hazards are introduced into the workplace.

Supervisors shall receive special training covering all hazards and safe practices relating to their specific area of responsibility.

In addition to training sessions conducted for current Contractor employees, sessions conducted for new and reassigned Contractor employees, and sessions conducted to address new hazards, annual refresher course shall be administered to all Contractor employees.

Individual records shall be made of all training administered to Contractor employees and shall be retained for the duration of the project. Training records shall be maintained onsite.

Copies of all written training material shall be forwarded to the CM's Manager of Safety along with attendance documentation.

All Contractor employees shall attend a weekly safety training session (Tool Box Meeting). This session can be used as refresher training or a brief discussion of a new subject. Copies of notes used and attendance documentation will be forwarded to the CM's Manager of Safety no later than Monday following the session. The CM's Manager of Safety shall forward a copy of the Tool Box Meeting notes and attendees to CDA Safety.

11. MONTHLY SAFETY COORDINATION MEETING

To insure a steady flow of safety and health information, a mandatory monthly Safety Coordination Meeting will be held, with each Contractor's Safety Representative in attendance.

This meeting will be chaired by the CDA Safety Manager or his designee. Meeting minutes will be taken and attendance will be recorded.

12. INSURE EMPLOYEE COMPLIANCE

Code of Safe Practices

Part of each employee's regular training shall be on safe practices applicable to particular job assignments. For every job or class of jobs, a code of safe practices shall be developed through a Job Hazard Analysis. These codes are put in writing, and shall be circulated to all employees whose jobs involve the performances of tasks covered by the code, and shall be made a part of the Contractor's Safety Manual. The codes cover:

a. Engineering Controls. Employees shall be forbidden to tamper with devices installed on equipment for the purpose of preventing injury. Employees who believe that a control device is inadequate, difficult to use, improperly installed, or damaged in any way are required to report any such condition to their supervisor.

b. Procedural Controls. Employees shall be required to follow the procedures and employ the methods specified in the safe practices codes applicable to their job assignments. Employees who believe that a method or procedure is ineffective or difficult to use or who encounter problems with the use of specified methods or procedures are encouraged to report such problems to their supervisor.

c. Administrative Controls. Supervisors shall be required to insure that employees adhere to schedules and alignments that have been made to implement administrative controls. Employees shall be required to make and supervisors are required to check and maintain, whatever time records are needed to carry out administrative controls.

d. Disciplinary Procedures. The employer (Contractor) shall have a program of progressive discipline to enforce its work rules. The Contractor shall apply its disciplinary procedures with equal force to violations of safety rules as to violations of other policies and rules adopted by the organization. The Contractor's disciplinary program shall be made a part of the employer's safety program.

13. MAINTAIN RECORDS

The following records shall be compiled and maintained for the duration of the project unless otherwise required by the company or some other regulation.

- Monthly reports of occupational injury and illness
- Job hazard reports
- OSHA citations
- Results of incident investigations
- Safety inspection records and records documenting correction of reported hazards
- Job Analyses and corresponding codes of safe practices
- Individual employee training records

Contractor shall provide first-aid supplies onsite for their employees and a person trained in basic first-aid who can render immediate care when needed. The name of the designated first-aid provider and a copy of training documentation will be provided to the CM's Manager of Safety. Seriously injured employees will be transported by ambulance. The Contractor shall not permit an injured employee to drive themselves to the medical facility or home, unless approved by a medical professional.

The Contractor shall insure that all documents and correspondence sent to the CM's Manager of Safety, be sent in such a timely fashion as to reach the CM's Manager of Safety no later than the time specified.

Monthly injury/evaluation reports are to be submitted to the CM's Manager of Safety no later than the 5th day of each month.

C. CONTRACTOR'S SUPERVISORS RESPONSIBILITIES

1. Be responsible for planning and executing all work to comply with the Contractor's Safety Program and the Contract Specifications.

2. Be knowledgeable of loss control and public protection requirements identified in the safety specifications of the Contract Documents.

3. Require each supervisor and all workers to use the personal protective equipment in accordance with the Contractor's Safety Program, CAS, City ordinances and all State and Federal safety-related statutes, rules and regulations.

4. Participate in fact finding and resolution on all incident investigations.

5. Take immediate corrective action to abate identified unsafe conditions and practices.

6. Communicate to the Contractor's project manager and to the Contractor's Safety Representative noted safety concerns or violations that require attention.

7. Cooperate with designated safety and government representatives.

D. CONTRACTOR SAFETY REPRESENTATIVES RESPONSIBILITIES

1. Make daily job site safety inspections and take immediate abatement action to eliminate observed safety deficiencies.

2. Provide appropriate written materials for those conducting weekly “Tool Box Meetings”, review meeting reports for employee attendance and periodically attend “Tool Box Meetings” to evaluate their effectiveness.

3. Attend CAS Construction Safety and Safety Training Meetings when requested and share experiences with peers.

4. Promote total job safety among employees and visitors.

5. Oversee the investigation of all incidents involving the Contractor or subcontractor(s) to determine primary causes, contributing factors and those actions necessary to prevent a recurrence.

6. Maintain incident records and forward copies/reports to the CM’s Manager of Safety.

7. Follow-up on all recommendations requested by CDA, CAS, OSHA, FAA and other governing authorities, with a written response to CM’s Manager of Safety within twenty-four (24) hours, stating the status (date of compliance/date of expected compliance) of the recommendations.

8. Furnish all information concerning the safety of the various operations as may be requested by the CM’s Manager of Safety and the CDA Safety Manager.

E. CONTRACTOR’S EMPLOYEE RESPONSIBILITIES

1. Perform all work in a safe manner.

2. Accept responsibility for your own safety and report all unsafe acts or conditions to the foreman.

3. Report all incidents, injuries, and illnesses immediately upon their occurrence. Report for medical treatment as directed. A release for work authorization must be provided prior to returning to work.

4. Conduct work in accordance with CAS and established state and federal safety regulations.

5. Attend and participate in Tool Box Safety Meetings and/or demonstrations as requested.

6. Participate in accident investigation procedures as requested.

7. Be aware of the responsibility to protect yourself, follow workers, and the general public from accidental injury.

8. Protect tools or equipment provided from needless damage or loss from theft.

9. Call to the attention of the supervisor any broken or dangerous tools capable of causing injury.

V. SPECIAL REQUIREMENTS FOR AIRPORT SECURITY AND OPERATIONS

A. The requirements for Airport Security and Operations is incorporated by reference as if Article XV of the current General Conditions was repeated here word for word in this Article V.

B. In addition to the above. The Contractor shall:

a. Take extreme care when locating existing underground utilities. Contractor shall properly complete FAA Field Cable Locate Request forms see Exhibit V-1, submit them to the FAA Technical Operations office and simultaneously transmit a copy to the Construction Manager. The Contractor shall designate an on-site person to monitor utility locating activities. Hand excavation and appropriate equipment shall be utilized wherever and whenever appropriate. DIGGER, JULIE, FAA and AGI shall be consulted to insure that utility locations are correctly marked.

b. In addition, prior to excavating the Contractor shall execute the procedures and requirements of the "Underground Construction Notification" form. The meetings, notifications, activities and actions required by the form will be the Contractor's responsibility to organize, coordinate, implement and execute. Work shall proceed only after the completed form has been approved by the Commissioner. See Exhibit V-2.

c. The Contractor must fill out the request for FAA Assistance form to gain access to the controlled areas described in FAA's response to form 7460-1. This form shall be submitted 5 days in advance to FAA for review and assistance. See Exhibit V-3.

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VI. GENERAL SAFETY REQUIREMENTS

The following sections describe general safety program requirements that will be met by all personnel on site. Contractor safety programs shall be defined such that they meet these requirements.

A. PERSONNEL CONDUCT

1. Under no circumstances will alcoholic beverages or controlled substances by permitted on any project. Anyone found in possession of the above will be immediately removed from the site and may not be allowed back to work on an airport project.

2. Fighting will result in all participants being removed from the site.

3. Firearms and all weapons are prohibited on site.

4. Cameras and video recorders are prohibited on site.

NOTE: Violation of any of the above rules will be grounds for the CM's Manager of Safety to request CDA Safety to permanently remove a Contractor's employee from any and all CDA projects.

B. IDENTIFICATION AND REPORTING OF UNSAFE CONDITIONS

The Contractor shall immediately report to the CM's Manager of Safety all accidents arising out of, or in connection with, the performance of the work on the site, which caused death, personal injury or property damage. A written report shall be submitted within 24 hours. If any claim is made by anyone against the Contractor or any Subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the CM's Manager of Safety giving full details of the claim.

C. CONTRACTOR CORRECTIONS OF UNSAFE CONDITIONS

Should the CM's Manager of Safety determine the Contractor is not in compliance with a CDA, Federal, State, or Local requirement, (after consultation with the Construction Manager & CDA Safety), the CM's Manager of Safety shall have the authority to order cessation of the non-compliant occurrence and require immediate correction. All costs of abatement shall be borne by the Contractor deemed responsible, and no time extension or additional costs shall be granted.

The Contractor shall correct any unsafe condition existing on the project immediately upon receipt of written notice. The unsafe condition shall be corrected in accordance with applicable regulations at the Contractor's expense. The Contractor shall be responsible for all liability created from unsafe conditions, including but not limited to any legal expense, re-inspection costs, and any delay to the project to other contractors.

Each Contractor shall in a readily visible manner, identify all of his tools, and similar material either by paint color or label.

Contractors shall immediately report any occurrences of theft, vandalism, personal threats, or bodily violence to the CM's Manager of Safety. Contractors shall provide any security measures they feel are necessary to protect their personnel, material, equipment, or other property.

D. HOT WORK

Hot work is defined as a process or procedure, which could result in a fire if not properly controlled. Common types of hot work in construction include but are not limited to: welding, burning, cutting, brazing, soldering, gasoline or fuel storage areas repair, grinding, spark producing or heat generating activity.

Hot work will be permitted only during normal working hours unless authorized by the CM's Manager of Safety. Regardless of hours of Hot Work, CM's Manager of Safety must be notified of all Hot Work activity. Permits shall be obtained by the Contractor's Safety Representative the day before work is to be accomplished. The work area shall be inspected by the Contractor's Safety Representative to verify that adequate control has been established. A copy of the permit will be posted or available within fifty (50) feet of the point of work for which a permit is issued.

The Contractor will issue all cutting/welding hot work permits to its employees and those of its Subcontractors.

1. No Hot Work may be done without a Hot Work Permit.

2. All flammable materials shall be removed from the area before a permit is issued.

3. The CM's Manager of Safety may assist in determining necessary precautions to safeguard life and property.

4. Contractors shall supply their own fire extinguishers for each welder and torch.

5. Contractors shall supply their own fire watch for each Hot Work operation. The fire watch must remain at the location of each hot work operation a minimum of thirty (30) minutes after hot work is complete.

6. Shields shall be provided by the contractor to protect workers from welding flashes.

7. All areas will be kept clean of all trash.

8. Contractor shall provide flammable resistant clothing for its employees.

9. Contractors shall be responsible for the work of their Subcontractors.

10. Contractor shall provide "Flash Curtains", welding screens or other means around cutting, burning or welding work to protect surrounding Contractor employees and the general public.

11. When cylinders are transported by power vehicles, they shall be secured in a vertical position with the caps in place.

Oxygen cylinders in storage shall be separated from fuel gas cylinders or combustible materials (especially oil or grease), a minimum distance of 20 feet or by a noncombustible barrier (fire wall) at least 5 foot high having a fire resistant rating of at least one-half hour.

E. ELECTRICAL

1. RESPONSIBILITY

Each contractor performing the work has the responsibility for the proper use of all electrical tools and equipment.

2. GROUNDING

The non-current carrying metal parts of portable and/or plug connected equipment shall be grounded.

Exposed, non-current carrying metal parts of fixed electrical equipment, including motors, generators, frames and tracks of electrically operated cranes, electrically driven machinery, etc., shall be grounded.

The path from circuits, equipment, structures, and conduits or enclosures to ground shall be permanent and continuous and have ample carrying capacity to conduct safely the maximum current which may be imposed on it.

Driven rod electrodes shall have a resistance to ground not to exceed 25 ohms. Where the resistance is over 25 ohms, two or more electrodes connected in parallel shall be used.

Grounding of circuits shall be checked to ensure that the circuit between the ground and the grounded power conductor has a resistance which is low enough to permit sufficient current to flow or cause the fuse or circuit breaker to interrupt the current.

All temporary wiring shall be effectively grounded in accordance with the Chicago Electrical Code, Article VI – Grounding and all other applicable provisions of the Chicago Electrical Code.

Precautions shall be taken to make any necessary open wiring inaccessible to unauthorized personnel.

All 120 volt, 15-amp receptacle outlets on the site, which are not part of the permanent wiring of the building, shall use ground fault circuit interrupters.

3. EQUIPMENT GROUNDING CONDUCTOR PROGRAM

Ground Fault Circuit Interrupters (GFCI) are to be used at all times.

In addition, an equipment inspection program shall be established on the construction site covering all cord sets and receptacles which are not a part of the permanent wiring of the building or structure and tools which are available for use or used by employees.

This program shall comply with the following minimum requirements:

a. Each cord set, attached cap, plug and receptacle or cord set, and any equipment or tool connected by the cord and plug, except cord sets and any receptacles which are fixed and not exposed to damage, shall be visually inspected before each day's use for external defects such as, deformed or missing pins or insulation damage. Equipment found damaged or defective may not be used until repaired.

b. The following tests shall be performed on all sets and receptacles which are not a part of permanent wiring of the building or structure, and cord plug-connected equipment required to be grounded.

c. All equipment grounding conductors shall be tested for continuity and shall be electrically continuous.

d. Each receptacle and attachment cap or plug shall be tested for correct attachment of the equipment-grounding conductor. The equipment-grounding conductor shall be connected to its terminal.

All required tests shall be performed:

a. Before first use,

b. Before equipment is returned to service following any repairs, and

c. Before equipment is used after any incident which can be reasonable suspected to have sustained damage (for example, when a cord set is run over).

Contractors shall not make available or permit the use by employees of any equipment which has not met the requirements of this section.

Tests performed as required in this section shall be recorded. This test record shall identify each receptacle cord set, and the cord and plug-connected equipment that passed the test and shall indicate the last date it was tested or interval for which it was tested. This record shall be kept by means of logs, color-coding, or other effective means. The record shall be made available on the job site for inspection.

4. ELECTRICAL TOOLS AND CORDS

Portable tools and appliances protected by an approved system of double insulation, or its equivalent, need not be grounded. Where such an approved system is employed, the equipment shall be distinctively marked.

All extension cords shall be rated for hard or extra-hard usage as defined by the National Electric Code, with three wires and a ground pin.

Electrical extension cords will not be plugged together. A cord of sufficient length must be used.

Electrical extension cords must not be placed on the ground of the floor. They must be secured at least seven (7) feet off the ground or floor.

Tools and cords in need of repair will be removed from service immediately. The tool or cord will be rendered inoperative, either by tagging, by removing the end plug, or by locking until it is repaired and tested.

5. ELECTRICAL PANELS AND TEMPORARY WIRING

All energized panels shall be marked with its operating voltage by the installing contractor.

All energized panels shall have its live parts covered and protected from accidental contact with an appropriate solid cover. Cardboard does not meet this requirement.

All temporary wiring shall be installed in accordance with 29 CFR 1926.405 Wiring methods, components, and equipment for general use.

F. LOCKOUT/TAGOUT PROCEDURES

1. GENERAL REQUIREMENTS

When a lock/tag is placed on any energy source, that source will not be used until the lock/tag is removed in accordance with this policy.

Contractor management shall instruct all affected employees in the purpose, use, and safety significance of the Lockout/Tagout procedure.

The Lockout/Tagout devices used for compliance with this procedure shall be as follows:

Locks: Locks shall be of suitable manufacture, color-coded or otherwise identified for lockout use only.

Tags: Standard tags shall be used in all facilities

It shall be the responsibility of each contractor to maintain an adequate supply of safety locks and a written record of lock number, date issued, and name employee to whom the lock was issued.

Affected employees shall be trained in all aspects of the purpose and use of the Lockout/Tagout procedure by their Contractors. The standard Lockout/Tagout training program shall be utilized. Documentation of such training will be submitted to the CM's Manager of Safety.

An energy source shall be defined as any electrical, mechanical, hydraulic, pneumatic, chemical, nuclear, thermal or other energy source that could cause injury to personnel. An energy-isolating device shall be defined as physical device which prevents the transmission or release of energy, for example, but not limited to, the following: a manually operated electrical circuit breaker, a disconnect switch, manually operated switch, a slide gate, a slip blind, line valve, block or similar devices with visible indication of the position of the device.

A circuit tester is to be used to determine that the electrical line is in fact de-energized, prior to commencing work.

2. CONTRACTOR DEVELOPED PROCEDURES

Each affected Contractor/Subcontractor shall supply the CM's Manager of Safety with a copy of its Lockout/Tagout procedure prior to starting work. In addition, each Contractor/Subcontractor will provide a copy, to the CM's Manager of Safety, a Lockout/Tagout checklist listing the start up and shut down procedures for its equipment and all other activities involving Lockout/Tagout.

3. SEQUENCE OF LOCKOUT PROCEDURE

When necessary, shut equipment down by the normal stopping procedure, (depress stop button, open toggle switch, valve, etc.).

Open disconnect switch, operate valve, or other energy isolating device so that the energy source(s), (electrical, mechanical, hydraulic or air, gas, steam, water pressure, etc.) must also be dissipated.

Lockout/Tagout the energy source(s) with assigned individual devices. In situations involving more than one person, all affected employees are required to place their assigned individual lock or tag on the energy-isolating device. (After assuring no personnel are exposed, operate push button or other normal operating controls to make certain the equipment will not operate. CAUTION: Return operating controls to neutral or off position after test.

Where Lockout/Tagout is not feasible (in the case of required, repetitive adjustments or production operations) the tests or work shall be accomplished under the protection of one designated individual.

If work on a piece of equipment has not been completed by the end of the shift, the supervisor in charge shall Tagout the equipment to allow the removal of locks. The oncoming shift attaches their lock(s) at which time the tag shall be removed by the oncoming supervisor.

G. CRANE SAFETY AND RIGGING

Cranes are a vital part of any construction operations. To assure that they handle the loads properly, safely, and with the greatest efficiency, the following procedures are necessary. The inspection report for the cranes and derricks must be completed in accordance with 29 CFR 1926, Subpart CC.

Contractors must follow all requirements of Subpart CC – Cranes and Derricks in Construction. The contractor must designate an Assembly/Disassembly Director in accordance with 29 CFR 1926.1404; a qualified signal person, according to 29 CFR 1926.1428; and a qualified rigger described in 29 CFR 1926.1401. Additionally, Contractors assume the role of the controlling entity as required in Subpart CC.

Fall protection must be used during assembly disassembly, inspections or other operations where fall protection hazards exist.

Contractors are responsible for implementing the requirements of 29CFR1926, Subpart CC by the specified phase-in dates.

1. MOBILE CRANE SET-UP

   The operator shall be responsible for:

   a. The proper placement of the crane in relationship to the load to be handled and the landing area so as to obtain the best rated lift capacity.

   b. Leveling the crane to within one degree of level and rechecking the level a minimum of three times during the eight-hour work shift.

   c. Assuring the outriggers are fully extended and locked in place, or if the manufacturer allows, deployment as specified in the crane's load chart.

   d. The determination of stable or unstable ground of footing: should additional floats, cribbing, timbers, or other structural members be needed, they shall be of proper design and sufficient to uniformly distribute the load.

   e. The installation and maintenance of crane swing radius protection.

   f. The proper barricading of the outriggers.

2. LOAD RATING

The weight of all auxiliary handling devices such as hoist blocks, headache balls, hooks, and rigging shall be considered as part of the total load.

Additionally, the weight of all items added to the load at the site must be determined and added to the total weight.

The Bill of Lading, provided to the operator must be used to assist in determining the load's total weight.

3. CRANE INSPECTION

All cranes shall have posted on the crane or in the cab, a valid annual inspection certificate showing a certified third party inspection. The frequency of, and criteria for inspections must be performed in accordance with 29 CFR 1926.1412.

Cranes shall be inspected:

a. After setup and prior to initial lift.
b. Before each shift.
c. After every malfunction or severe service.
d. After modifications or repairs to the crane and/or its components.
e. After repairs or adjustments.
f. When the crane has been idle for three (3) months or more.

Written Daily Inspection items to be checked:

a. All control mechanisms for maladjustment interfering with operation.
b. All control mechanisms for excessive wear of component and contamination by lubricants or other foreign matter.
c. All safety devices for malfunction.
d. Deterioration or leakage in air or hydraulic systems.
e. Crane hooks with deformation or cracks, sling and chokers for broken strands, fraying or kinking.
f. Safety latches in an operable condition on all hooks, except where otherwise specifically authorized.
g. Electrical apparatus for malfunctioning, signs of excessive wear, dirt and moisture accumulation.
h. Periodic and annual inspections shall be performed in accordance with the manufacturer's recommendations

4. RECORD KEEPING

All written records pertaining to crane inspections, daily and annual, shall be kept with the crane.

If during any safety inspection, the operator or supervisor cannot produce the required crane inspection sheets, the crane shall immediately be shut down and inspected.

5. OPERATOR QUALIFICATIONS AND OPERATION PROCEDURES

Operator shall have in his possession a current City of Chicago Crane Operator's permit and be qualified and certified in accordance with 29 CFR 1926.1427.

Cranes shall be operated by the following personnel:

- Designated operators who have been licenses by an approved agency or union and are in possession of a City of Chicago Operator's permit.

- Trainees who are under the direct supervision of the designated operator
- Inspectors certified for crane inspection.

No one other than the above personnel shall be in or on the crane during operations. Exceptions are oilers or supervisors whose duties may require their presence.

6. OPERATION PROCEDURES

Resident Engineer will notify CDA Operations when a crane is to be used Airside including height of boom and length of time crane will be in use. The crane must be equipped with a flag or mars light at its highest point according to approved FAA 7460.

The operator shall:

a. Not engage in any practice, which may divert the operator's attention while engaged in crane operation, to include not wearing walkman-type radio (entertainment) headsets.

b. Not operate the crane if physically or mentally unfit, or if taking prescription drugs that may impair vision, balance or produce other adverse affects.

c. Not respond to any signal, which is unclear or is given by anyone other than appointed signalmen. Exception: The operator shall respond to a stop signal given by anyone.

d. Not permit trainees to make initial lifts. The operator shall perform the first lift to determine lift stability, crane function, and safety in general.

e. Have final responsibility and control over the crane operations. Whenever there is any doubt as to safety, the operator shall have the authority to stop and refuse to handle loads until safety has been assured.

f. Upon request, demonstrate the ability to determine total load weight and its relationship to the crane load charts.

7. HANDLING THE LOAD

No crane shall be loaded beyond its rated capacity, except for test purposes. When loads which are limited to structural competence rather than by stability are to be handled, the operator and supervisor shall, concurrently, determine that the weight of the load has been determined within plus or minus 5 percent before the load is lifted.

Attaching the load:

a. The load shall be attached to the hood by means of slings or other approved devices.

b. No open hooks shall be used for lifts higher than two (2) feet. Hooks used for lifts in excess of two (2) feet shall have hook safety latches or be safety wired to prevent slings from jumping off the hook.

Hoisting the load:

a. The operator shall determine that the crane is level to within one (1) degree and, where necessary, is properly cribbed and blocked.

b. The operator shall be responsible for determining that the load is properly secured and balanced before making the hoist.

c. The operator shall determine that the rope is properly seated on the drum and in the sheaves, the load line is not kinked and multiple part lines are not twisted around each other.

d. All loads must have a tagline attached to them.

During Hoisting:

a. The operator shall not suddenly accelerate or decelerate a moving load.
b. The operator shall not permit the load to contact any obstruction.
c. The operator shall not swing loads over personnel.
d. The operator shall not permit side loading of booms or dragging load. Lifts shall be limited to freely suspended loads.

Total Imposed Load:

The load on the tires, outriggers, wheels or tracks is derived from the gross weight of the crane and suspended load, i.e., the sum. However, additional loading can be exerted by shock or dynamic (movement) loads due to fast hoisting, lowering, swinging, or wind forces. This total load must be considered.

8. GROUND STABILITY

One of the critical factors of proper crane setup is a “firm supporting surface”. For maximum capacity, the crane must be level. However, to maintain a level condition, the ground surface must be adequate to support the dynamic load of a “working crane”.

Four basic elements that are to be considered:

a. Total imposed load
b. Supporting surface area
c. Pounds per square foot
d. Soil Stability

The amount of area in contact with the ground will determine the bearing pressure the crane and load exert on the soil. When it is determined that the bearing pressure exceeds soil stability, the bearing area of the crane must be increased by the use of cribbing.

Cribbing to be used must be:

a. Strong enough to withstand the weight of the crane without major deflection, thus actually increasing the bearing surface.
b. Bolted or secured together to prevent slippage and collapsing.
c. In complete contact with the soil – no voids, unsupported areas, etc.

For descriptive purposes, it is necessary to distinguish between three broad groups of soil:

a. Granular soils, including sand and gravel
b. Fine grained soils, including silts and clays
c. Organic soils, including peat

Different type soils will give different load-bearing pressure. When setting up a machine, the contractor’s Assembly/Disassembly Director must be able to distinguish between the

three groups of soil, the approximate mixture of each, their moisture content and their depth. The Assembly/Disassembly Director as defined in 29CFR1926.1901, must consider factors such as water tables and distance to excavations, which affect the soil's ability to withstand the pressure without collapse. The project soil analysis report may be used as an indicator of soil conditions.

Various tables are available which give the relative load-bearing capabilities of the soil types under static loads. Local building code departments are usually a good source for the tables.

9. RIGGING REQUIREMENTS

   a. All rigging equipment sets shall have permanently affixed identification stating size, grade, rated capacity and manufacturer.

   b. All rigging devices including slings, chains and wire rope shall have permanently affixed identification stating size, grade, rated capacity and manufacturer.

   c. Rigging not in use shall be removed from the immediate work area.

   d. Rigging, including slings, shall be hung on a rigging frame so that bends and kinks do not develop.

   e. Wire rope slings shall be lubricated as necessary during use. Slings shall be lubricated no less than every 4 months when in storage.

   f. "Shop-made" grabs, hooks, clamps or other lifting devices shall not be used unless proof-tested to 125 percent of their rated load by an approved testing agency. Approved devices shall have the capacity permanently affixed.

   g. Slings, on the job, shall not be left lying on the ground or otherwise exposed to dirt and the elements.

   h. Eyes in wire rope bridles, slings or bull wires shall not be formed by wire clips or knots.

   i. Protruding ends of strands in splices on slings or bridles shall be covered or blunted. All rigging equipment in use shall have a safety factor of five (5).

10. SAFE RIGGING PRACTICE

   a. Slings in use shall not be shortened by knots, bolts, or other makeshift devices.

   b. Wire rope slings shall be padded or softeners used to protect from damage due to sharp corners.

   c. Slings used in a basket hitch shall have the loads balanced to prevent slippage.

   d. Loads handled by sling shall be landed on cribbing or dunnage so that slings will not be pulled from under or be crushed by the load.

   e. Slings subjected to shock loading shall be immediately removed from use and destroyed.

f. When U-bolt wire rope clips are used, industry recognized standards shall be used to determine number and spacing of clips.

g. Wire rope cable clips shall be applied in accordance with recognized standards.

11. INSPECTION AND RECORD KEEPING

In addition to the inspection required elsewhere in this document, thorough inspection of slings in use shall be made on a regular basis as determined by:

a. Severity of service conditions
b. Frequency of sling use
c. Nature of lifts being made
d. Experience gained on the service life of slings used in similar use

Inspection periods shall not exceed once in twelve (12) months.

A record of inspections shall be maintained onsite.

12. INSPECTION CRITERIA

Wire rope slings shall be removed from service when:

a. There is wear or scraping of one-third the original diameter of outside individual wires.
b. Kinking, crushing, birdcaging or similar damage.
c. End attachments are cracked, deformed or worn.
d. There is exposure to temperatures in excess of 200 degrees F. (fiber-core) or 400 degrees F (non-fiber core).
e. Corrosion of the rope or end attachments occurs.

Natural and synthetic fiber rope slings shall be removed from service when:

a. Abnormal wear is observed
b. Powdered fibers are found between strands
c. Fibers are cut or broken
d. There are variations in the size or roundness of strands
e. There is discoloration or rotting
f. There is distortion of sling hardware
g. Exposed to temperatures in excess of 180 degrees F
h. There is no visible identification explaining the maximum load it can lift

Synthetic web sling shall be removed from service when:

a. Colored warning fibers are visible
b. Subjected to acid or caustic burns
c. Melting or chaffing of any part of the sling surface occurs
d. Snags, punctures, tears, or cuts are observed
e. Stitches are worn or broken
f. Fittings are distorted
g. Exposed to temperatures in excess of 180 degrees F (synthetic web) or 200 degrees F (polypropylene web).
h. There is no visible identification explaining the maximum safe workload.

13. OVERHEAD UTILITIES

Cranes working in the vicinity of overhead power lines must follow safe distance requirements established in 29 CFR 1926.1407 – 29 CFR 1926.1411 for operations and assembly/disassembly of cranes.

14. REPAIRS

The listed slings may be repaired in accordance with manufacturer's directions.

a. Synthetic slings
b. Metal mesh slings
c. Wire rope slings

Sling repairs must be performed by the manufacturer or any equivalent entity. Once repaired, each sling shall be permanently marked or tagged and a record of the repair maintained.

15. CRITICAL LIFT PROCEDURES

When two or more cranes are to lift a single load, the requirements of 1926.1432 Multiple Crane/Derrick Lifts supplemental requirements must be met.

A job hazard analysis is required for this type of work operation.

16. IN CASE OF SERIOUS EVENT

In the event the worst happens and a crane collapses, turns over, drops a load or otherwise fails, the Contractor shall follow these procedures;

a. Render emergency first aid.

b. Call the Chicago Fire Department.

c. Do not allow the crane, its components or the load to be moved unless vital to rescue operations until a complete and thorough investigation has been completed.

d. Contact the CM's Manager of Safety immediately to initiate proper accident reporting and investigation procedures. The CM's Manager of Safety shall contact the CDA Safety Manager.

e. Take photographs of everything including overall photographs of entire scene, detailed photos of components and anything that will explain what happened and submit complete copy to the Construction Manager.

f. Begin the interviewing process of witnesses and participants to determine what happened.

g. Assist other investigatory agencies while preserving the legal rights of all concerned parties.

h. Prepare a complete investigation and report of what happened and submit to the CM's Manager of Safety. The CM's Manager of Safety shall forward a complete investigation report to the designated CDA Safety Manager.

H. EXCAVATION

The purpose of this program is to establish guidelines to be followed to control excavation activities. All excavations will be done in full compliance of Subpart P, 29 CFR 1926.

Supervisors (including foreman) shall insure that all employees comply with all provisions contained in Subpart P.

All excavations shall be done under the supervision of a competent person.

All soils are to be considered type “C” so all safety provisions are to be reviewed and complied with in their entirety.

This is to include at least a 1-1/2: 1 (34 Degrees) ratio when sloping the sides.

Any excavation greater than twenty (20) feet in depth shall have plans, which are signed and stamped by a registered professional engineer.

1. SUITABLE INSPECTION

   Once the initial excavation is completed, a competent person will inspect the excavation and complete a “Soils Analysis Checklist” and a “Daily Trenching Log”. These documents will be maintained at the jobsite. No employee will enter the excavation until this documentation is complete.

2. DAILY INSPECTION

   Daily inspections of each excavation, the adjacent area, and the protective systems shall be made by a competent person for evidence of possible cave-ins, indications of failure of protective systems, hazardous atmospheres or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after each rainstorm or other hazard-increasing occurrence. All inspections will be documented on the Daily Trenching Log and a copy maintained at the jobsite.

3. LOCATING UNDERGROUND UTILITIES

   a. When trying to locate underground utilities remove the grass and ground cover in the proximity of the utilities. View with skepticism protective fences or stakes which appear to demarcate utility channels and identify the utility type because the City does not warrant their accuracy. Utilize FAA Locate Request forms, and do not rely on verbal or phone conversations with FAA Technical Operations, for the information you are seeking.

   b. Designate, dedicate and identify that person on-site who shall monitor utility locating activities, will be responsible to see to it that a utility locator, hand digging or use of a hydro excavator is used and ensure adequate lighting exists for the operation to proceed safely. Insist that a representative of the particular utility visit the site when “refreshing” a DIGGER (for earth disturbance and the location of underground utilities within Chicago city limits), Joint Utility Locating Information for Excavators (JULIE), FAA and American Geological Institute (AGI) number for the project to insure the utility location is correctly marked. Once exposed use visual markers such as fluorescent paint identify highlight their presence to others in the area.

c. The Contractor is directed to integrate the above information regarding utility identification into his program of daily safety toolbox talks. The Construction Manager will establish “report of locates” which will reference pertinent drawings and identify findings.

4. HAND TOOL EXCAVATION

Where existing underground utilities, etc., are within ten (10) feet from the exposed excavation, supervisor shall visually establish the position of the underground utilities, etc., from the observance of buried utilities surface markers, or in their absence, by hand tool excavation at sufficient intervals.

5. MACHINE EXCAVATION

When locations of all utilities, etc., have been established by surface markers, hand tool excavations, or accurate as-built drawings, and the permit does not contain a requirement for hand tool excavation only, machine excavation shall commence under close supervision.

6. UNEXPECTED UTILITIES, ETC.

During excavation, if unexpected utilities, etc., are discovered, the excavation shall stop and the CM’s Manager of Safety shall be notified immediately. Excavating shall not be resumed until all notifications are made according to the Chicago Department of Aviation Underground Construction Notification form and that CDA Safety and/or CM’s Manager of Safety has determined work can resume.

7. BARRICADING

Excavations will be properly barricaded when actual work is not being done. Barricading will be placed six feet from the edge of the excavation and will be of such strength to prevent entrance.

I. ASPHALT WORK

Due to the heavy viscous nature of asphalt, and being one of the most dangerous of all hot products, additional safety requirements are necessary for personnel working in all areas where asphalt is being handled.

Additional safety requirements include:

a. Long sleeved shirts
b. Gloves loose enough to be thrown off with a flip of the wrist
c. High top shoes 5” or more from the bottom of the sole to the ankle tops
d. Long pants, preferably without cuffs

Need to have a five (5) gallon water container, labeled “non-drinking water” onsite to be used for the possible treatment of burns.

NOTE: It is recommended that nylon or polyester clothing NOT be worn due to the tendency of these materials to melt and adhere to the skin when heated or burned. Wool is the best material to be worn with cotton being the next best.

J. PERSONAL PROTECTIVE EQUIPMENT

This policy is to establish guidelines and rules for personal protective equipment. All personnel including visitors and truck drivers shall comply with the following:

1. HEAD PROTECTION

   All Foremen, Superintendent, Field Engineers, and Management will wear white hard hats, and all craft employees will wear colored hard hats.

   Hard hats shall be worn at all times while onsite. Exceptions to this are allowed only in the following cases:

   a. Inside the main office trailers
   b. Inside enclosed vehicles
   c. While welding with the use of a welding helmet with over-the-head harness
   d. Where the head protection may otherwise constitute a hazard, e.g. upside-down position, narrow openings, etc.

   NOTE: During periods of high winds, insure a chinstrap is obtained, properly adjusted and used.

   The cradle of the hard hat shall be adjusted so that the weight of the hat is carried on it. There must be 1-1/4" (inch) clearance between the top of the hat and the head.

   No other hats shall be worn under the hard hat.

   Do not draw the headband too tight; just snug enough to prevent the hat from tilting. Special liners for winter use should be used.

   Inspect the hat daily for broken rim or crown, defective headband or cradle, etc. Replace if any defects are detected, and keep the headband clean.

   Do not cut or drill holes in the hat. The hat will be weakened and the protection ability compromised.

   Hard hats shall be worn with the bill to the front.

   All safety hats must meet ANSI Standard 289.2-1971 Class B and 289.1 Class A; and must not be altered in any way.

   The inside liner of the hard hat must be changed a minimum of once a year, or per manufacturers recommendations. The outside shell of the hard hat must be changed a minimum of every 5 years from initial usage, or in accordance with the manufacturer's recommendations.

   Western style hard hats, or other novelty styles are not authorized on airport property.

2. EYE AND FACE PROTECTION

   a. Safety Glasses – All personnel shall wear a pair of ANSI approved safety glasses with accompanying side shields at all times, except where otherwise exempted. When working indoors, and no hazards exist, clear lenses (not tinted) shall be worn between sunset and sunrise, or during inclement weather.

Safety glasses need not be worn:

- Inside the main office trailers
- While wearing full-face respiratory protection: or,
- When working in dusty environments where safety goggles are needed.

b. Goggles – Are to be worn when additional protection is required. Those issued will fit over the prescription or safety glasses. This additional protection is required when conducting light grinding operation or where there is a probability of exposure to acid, caustic, chemicals, etc. Proper care of the goggles may consist of:

- Keeping goggles and lens clean.
- Never wear a pair that has been previously worn by someone else until they have been disinfected.
- Assure the head bands are in good condition.
- The lens must be securely held in place in the frame. Inspect them for scratches which may distort vision or cause eye strain.
- Do not make any repairs to or wear defective goggles

c. Face Shields – are to be worn when metal sawing, working with chemicals in a laboratory, taking samples, buffing, sanding, light grinding, table saws, etc.

NOTE: Safety glasses and/or goggles must be worn when a face shield is used.

- The headband is the only adjustable feature and should fit snug enough to hold the face shield in place and attached to the hardhat in areas where head protection is required.

- Since the shield is plastic and is easily scratched, it shall be replaced when distortion or eye strain is experienced.

- Employees wearing prescription glasses shall insure that the glasses have side shields and that the glasses and side shields meet or exceed the standards set forth in ANSI Z87.

3. FOOT AND LEG PROTECTION

Safety toe footwear is not generally required, but is highly recommended. However, safety toe boots or safety rubber boots are to be worn when required. The following are footwear requirements:

Acceptable general footwear is limited to sturdy work boots or shoes. A sturdy work boot or shoe is one that has a firm toe and leather, or leather-like uppers that will provide reasonable protection against impact, and also a hard sole that will provide reasonable protection against penetration. The following types of footwear are **not** considered to be a sturdy work boot or shoe:

a. Athletic or running shoes (including those with leather uppers and/or steel toe).
b. Moccasins, sandals
c. Spike or platform heel shoes with canvas or suede uppers
d. Shoes that expose the toes
e. Boat shoes
f. All street shoes

When cutting material with a chainsaw or chop saw, full chaps are required.

Whenever a work, which creates additional hazards for the employee's feet, i.e. using a jack hammer or a jumping jack compactor, employees will be required to wear additional foot protection such as metatarsal guards.

NOTE: Exception to this requirement is granted to secretaries, clerks and other office personnel that work outside the actual construction area. However, those personnel are not permitted into the construction area unless they are wearing the approved footwear.

4. FALL PROTECTION

Personal fall protection is required by every employee when engaged in work more than six (6) feet above a floor or ground level, unprotected by standard guardrails. Contractors must adhere to all requirements in 29 CFR 1926.500. The fall protection requirements are as follows:

a. Where personal fall protection is to be used, the employer shall be required to submit a written fall protection plan, which shall be reviewed by the CM's Manager of Safety, prior to such fall protection being utilized. All submitted fall protection systems will be required to have a licensed professional engineer (PE) approve the engineering capability of the system.

b. A full body safety harness shall be accompanied with an attached shock absorbing lanyard or a retractable lanyard, which is secured to an anchorage that will support 5,000 lbs per worker attached to anchor point. Positioning devices such as "belly hooks" alone do not constitute compliance with fall protection. If the "belly hook" is used, it must be used in conjunction with a typical personal fall arrest system as determined by the competent person.

c. The harness anchor point shall be at or above the same elevation as the user's waist to minimize the fall distance.

d. Safety harnesses shall be suitable for the particular task being performed and for the hazard to which the employee is exposed.

e. The initial use of fall protection equipment must be documented and inspected by a competent person. In addition, the Contractor shall follow the manufacturer's recommendations on additional inspections of equipment.

f. Safety harnesses and safety lines shall be inspected before each use and will be replaced if found defective.

g. Contractor shall mandate that all employees in scissor lifts, manlifts, and all other human lifting equipment will be tied off at all times.

5. SHIRTS

Shirts with sleeves that cover the shoulders are required at all times. Tank tops or shirts that do not completely cover the upper body are prohibited.

6. TROUSERS

Long trousers are required at all times.

7. HOUSEKEEPING

Daily cleanup of the work area shall be required.

Good housekeeping is an integral part of our safety program. It is the responsibility of all employees, supervisors and workers alike, to maintain a clean and healthful workplace.

Waste materials and debris, such as bread and lunch cups, papers, etc., shall be deposited in the appropriate waste container and those containers are to be emptied on a routine or as needed basis. Oily rags/waste are to be deposited in closed metal containers designated for that purpose.

Oil and liquid chemicals spillage or leakage; spills, of dirt, sand and gravel, or any other form of solid waste spills; are to be cleaned up as they occur.

Field offices, tool rooms, supply facilities, etc., are to be maintained clean and orderly. Floors are to be swept and cleaned on a routine or as needed basis. Personnel having muddy, oily or snow packed footwear shall scrape or otherwise clean the shoes/boots before entering these areas.

Operating supplies are to be stored in approved storage areas. These storage areas shall be maintained in an orderly manner, labeled, and identified.

Empty containers, including drums, are to be removed promptly from the work place, disposed of properly, labeled and identified.

All original containers, and its satellite containers, need to be labeled and placed with the H.M.I.S. coding.

Personal equipment and other items are to be kept in designated areas.

Tools and equipment are to be properly stored in their designated location when not in use. Temporary storage of tools and equipment in operating areas is permitted, provided walkways and working areas are not blocked or restricted and that tripping hazards are not created.

Holes that are dug are to be backfilled immediately or protected by barricades. All excess fill is to be removed.

Temporarily installed floor gratings shall be secured in such a way as to prevent movement or tipping.

Gratings or railings that are removed shall be replaced as soon as practicable. Substantial barricades are to be erected when gratings or railings are removed.

8. SANITATION

Toilets, wash-up facilities and drinking water shall be provided by the Contractor or Subcontractor for the convenience and comfort of their employees in accordance with applicable standards. These facilities shall be secured in such a way as to prevent them from being blown over by high winds or jet blasts.

Portable toilets shall be cleaned, disinfected and re-supplied on a regular basis.

9. LIGHTING

Construction areas, ramps, runways, corridors, offices, shops and storage areas shall be lighted to not less than the minimum illumination intensities while any work is in progress as outlined by OSHA in 29CFR Part 1926.

10. NUCLEAR DENSITY MACHINE

Employees using Nuclear Density Machines must have a visible Radiation Badge. Employees not engaged in the actual testing must be at a minimum 15 feet away from the testing area. Nuclear Density Machines shall not be left unattended. Also, Proper storage and transportation shall be maintained.

11. VESTS

Clean reflective vests shall be worn at all times when airside, on jobsites and while working on roadways.

K. VEHICLE SAFETY

Unattended running vehicles Airside must have the emergency brake engaged. All company owned vehicles or vehicles used on company business are to be driven defensively; using common sense, courtesy and consideration for other motorists. It is the Contractor's responsibility to insure that all vehicles and equipment used on the project are properly maintained and fully functional.

Strict observance of CDA, City of Chicago and State of Illinois traffic laws is mandatory.

Seat belts are to be worn by the driver and all passengers at all times while the vehicle is in motion.

Contractors shall insure that all motor vehicles and equipment, except tracked equipment operating airside (except on service roads), are equipped with an amber MARS light, that shall be operating at all times. The MARS light shall be attached to the top of the vehicle and visible for 360 degrees. All construction equipment operating Airside shall have an operating amber MARS light attached to the top of its cab or shall have an orange and white checkered flag attached to its tallest point. If the checkered flag is used, the minimum size shall be 2' by 2'.

Contractor shall insure that all vehicles and equipment operating on the project shall be equipped with a back-up alarm, audible to a minimum of 200 feet.

Reflective vests shall be worn when working around heavy equipment.

L. FIRE PREVENTION AND PROTECTION

1. GENERAL PRACTICES

Fire protection must be present in accordance with all applicable standards.

No more than a one day (8 hour) supply of flammable or combustible materials shall be stored inside a building.

All portable, flammable and combustible storage containers (55 gallon drums or elevated storage tanks) shall be diked, barricaded and grounded in accordance with applicable standards.

Contractor shall only allow flammable or combustible liquids to be stored in approved metal containers or portable tanks. Containers must be marked as to its contents and placed with the H.M.I.S. coding.

> ***Approved Container means a container of not more than 5-gallon (8.9L) capacity made of metal, having a spring-closing lid and spout cover so designed that it will safely relieve internal pressure and equipped with a flashback arrester in the spout.***

The use of plastic containers for storage of flammable or combustible liquids is prohibited.

Good housekeeping practices shall be followed for minimizing the accumulation of combustible scrap and debris. This scrap and debris shall be removed daily.

Smoking is not permitted on any project considered to be Airside or in a City-owned building.

Tarpaulins and visqueen used in construction areas shall be flame retardant/resistive.

Existing fire hydrants shall not be obstructed from view or access and shall not be taken out of service without prior approval of the Chicago Fire Department. At O'Hare, submittal of the ORD Notice to Airport Users form shall be required prior to taking out of service.

Existing sprinkler systems in buildings shall not be taken out of service without prior approval of the Chicago Fire Department. At O'Hare, submittal of the ORD Notice to Airport Users form shall be required prior to taking out of service.

Open flames or barrel fires shall not be permitted at any time on airport property.

2. TEMPORARY HEATING

Portable heaters shall be equipped with an automatic shut off device that will shut the heater off if it tips over. Such heaters, having outputs above 50,000 BTU/hr., shall have either a pilot, which must be lighted prior to main burner ignition, or an electrical system ignition.

Containers of LP-Gas capacity one pound or more, must stand on a firm, substantial and level surface and shall be secured in an upright position to prevent them from being overturned.

3. STORAGE

Where combustible materials must be stored in work areas, they shall be sorted and placed into approved containers. All combustible materials shall be protected from falling sparks from welding and cutting.

Indoor storage shall not obstruct or adversely affect means of exit. No more than one day (8 hours) of compressed gasses shall be stored in any building.

At fuel or combustible material storage areas, suitable extinguishers shall be located within 50 feet of the stored material. Such areas shall also have "No Smoking" signs prominently displayed.

The Chicago Fire Department, Fire Prevention Bureau and the Chicago Department of Aviation prohibits the storage of gasoline and other CLASS I flammables in above ground tanks: CLASS II (diesel) will be permitted provided they are in compliance with the CDA Memorandum, dated May 15, 1991 and the Municipal Code of Chicago, Fire Prevention Bureau, *Section 15-24-220, Motor Fuel Dispensing and 15-24-221, Above-ground tanks.*

Sec - 15-24-220 – Motor Fuel Dispensing

All flammable liquid gauging, vending and dispensing devices used for motor vehicle fuel shall be of substantial construction, and firmly secured to a concrete foundation, which shall be so located and designed as to prevent motor vehicles from damaging such devices. Systems wherein continuous pressure is maintained, or water is used to displace liquid from storage tanks, shall not be permitted. The use of above ground storage tanks, tank cars, tank trucks or portable tanks in connection with gauging, vending and dispensing devices, shall not be permitted except for such equipment installed on tank vehicles complying with Section 15-24-1080 and tanks complying with Section 15-24-221 of this code.

Every remote fuel system shall be equipped with a fuel leak detector valve or device located as close as possible to or within the pumping unit. An impact valve or device located as close as possible to or within the pumping unit. An impact valve shall be provided at the base of each dispenser. Such devices and valves shall be listed by a testing laboratory, which has as its primary purpose the testing and evaluation of equipment and materials to meet appropriate standards.

Automatic hose nozzle valves with latch-open devices shall not be permitted. All dispensing devices shall be located so that all parts of the vehicles being served will be on private property. In no case shall the dispensing hose be longer than 16 feet for filling stations and private locations. Where dispensing equipment is used exclusively for trucks or other larger vehicles, automatic hose retrievers may be used, and shall not exceed 40 feet of hose.

Dispensing devices for motor vehicle fuel, except devices used exclusively for dispensing Class II or Class III flammable liquids within occupancy Class H3 buildings, shall not be permitted in buildings hereafter erected, altered or converted.

The dispensing of motor fuels which are Class I flammable liquids directly from tank vehicles shall be permitted only from tank vehicles complying with Section 15-24-1080 and tanks complying with Section 15-24-221 of this code. Retail sales of motor fuel to motor vehicles from tank vehicles shall not be permitted within buildings.

Sec – 15-24-221 – Above-Ground Tanks

The use of above-ground storage tanks, tank cars, tank trucks, or portable tanks in connection with vending, gauging, or dispensing of flammable liquids, other than for equipment installed on tank vehicles complying with Section 15-24-1080, shall be permitted only under the following limited circumstances:

A. The construction and installation of the tanks must satisfy each of the following conditions and restrictions:

1. Tanks shall be enclosed within a two-hour fire-rated assembly
2. The tank assembly shall provide 110 percent secondary containment of the flammable liquid. Dikes as required in Section 15-24-170 need not be provided.
3. Tanks shall be limited to a capacity of 1,000 gallons

4. ***No more than two such above-ground tanks shall be installed or located at any one site***
5. ***The tank shall be completely surrounded by a protective guardrail which is located a minimum of two feet away from the tank***
6. ***Dispensing of the flammable liquid shall be by means of a pump which is permanently attached to the top of the enclosing assembly described in subsection (A) (1) above and which is equipped with an anti-syphon valve.***
7. ***Such tanks shall be located a minimum of ten feet away from any building or property line, except that tanks containing Class II or Class III liquids, as defined in Section 15-24-020, may be located within three feet of a fire-resistive wall without openings.***
8. ***Each tank shall bear the words "Flammable – Keep Fire Away", conspicuously on each side of the tank. The coloring of the letters shall be a color which contrasts with the color of the tank and the letters each must be a minimum of four inches high***
9. ***A lockable fill cap shall be provided***
10. ***Tanks shall be electrically grounded***
11. ***Emergency vents conforming with Section 15-24-190B shall be provided for both the primary tank and the secondary containment space.***

B. Above-ground tanks used pursuant to this section shall not be used for any retail sales

4. HAZARDOUS WASTE REMOVAL

Contractors, involved in Hazardous Waste removal must meet the requirements of OSHA 29CFR 1910.120 by attending either the 24 hr. or 40 hr. OSHA Hazardous Waste Training and carry their certification card when on site.

5. TEMPORARY BUILDINGS

All temporary sheds built inside other building(s) shall be of non-combustible materials. Corrugated sheet metal is recommended. Plastic, tarpaulins, and wood roofs are prohibited.

6. FIRE EXTINGUISHER AND HOSES

Each Contractor and Subcontractor work area shall be provided with suitable portable fire extinguishers and a fire watch where required.

Each Contractor and Subcontractor must be knowledgeable about the location and use of fire extinguishers, fire stands, and hoses. Contractors and Subcontractors must replace any discharged extinguisher immediately. Annual fire extinguisher inspections must be completed by a qualified person or agency.

The first priority in case of fire is the safety of the personnel. In the event of fire, notify the Chicago Fire Department immediately. The CDA Safety Department Representative shall be notified as soon as practicable by the most expeditious means possible.

7. INSPECTIONS

The Chicago Fire Department may be asked to inspect the project periodically to keep up to date on the route of access to the building for their equipment, availability of water, and access for job personnel. Reports will be provided of inspection results.

M. LADDERS

1. GENERAL

   a. Manufactured ladders must be rated for industrial or heavy duty work.

   b. Job-made ladders must be constructed to conform to established federal and state standards.

   c. Broken or damaged ladders must not be used. Repair or destroy them immediately. Ladders to be repaired must be tagged and removed from the area.

   d. Wooden ladders shall not be painted so as to obscure a defect in the wood; only a clear, non-conductive finish shall be used.

   e. All ladders shall be manufactured from non-electrically conductive materials.

   f. Ladders shall not be placed in front of doors opening toward the ladder, unless the door is open, locked or guarded.

   g. Only one person shall work from a ladder at one time. If two persons are required, a second ladder shall be used.

   h. Ladders shall not be used as scaffold platforms.

   i. Boxes, chairs, etc., shall not be used as ladders.

   j. When ascending or descending ladders, employees shall have both hands free and shall face the ladder, unsecured ladders shall not be left unattended.

   k. Areas around the top and base of ladders must be free of tripping hazards such as loose materials, debris, cords, hoses, etc.

   l. Employees shall be tied off when using either straight ladders or stepladders and when reaching to the side of the ladder at heights greater than six (6) feet.

2. STRAIGHT LADDERS

   a. All straight ladders shall be equipped with non-skid safety feet. The base of the ladder must be set back a safe distance from the vertical unit, approximately one-forth of the length of the ladder. (4 to 1 ratio shall be used).

   b. All straight ladders must be tied off at the top or otherwise secured to prevent movement. A second employee must hold the bottom of the ladder while the top is being secured.

   c. Ladders used for access to a floor, roof or platform must extend at least 36” above the point of bearing.

   d. Splicing ladders together is prohibited.

   e. Never use a ladder against a vertical pipe unless the ladder is equipped with a specially designed web strap.

   f. Do not place the ladder against movable objects.

g. Straight ladders shall not be climbed beyond the third step from the top.

3. STEP LADDERS

a. The top two steps shall not be used.

b. The legs shall be fully spread and the spreading bars locked firmly in place.

c. Only one person may use a stepladder at a time.

d. The use of a stepladder as a straight ladder is prohibited.

N. SCAFFOLDS

All scaffolds shall be erected and used under the supervision of a competent person and shall adhere to all the requirements of 29 CFR 1926.450. With exception to fall protection where fall hazards exceed six (6) feet, fall protection shall be utilized.

The Contractor shall have each employee who performs work while on a scaffold trained by a person qualified in the subject matter to recognize the hazards associated with the type of scaffolding being used and to understand the procedures to control or minimize those hazards.

All scaffolds shall be erected and maintained to conform to established standards and manufacturer requirements. Supported scaffold systems must include screw jacks and mudsills.

Before assembling and dismantling the scaffold, the Contractor must conduct a Job Hazard Analysis (JHA), specifically related to fall protection. The JHA must be submitted to the CM's Manager of Safety for review and comment, and only after review by the CM's Manager of Safety, may the Contractor work without fall protection, if fall protection provides a greater risk.

Scaffolds shall be constructed with sound materials, securely fastened and be capable of supporting at least four (4) times the combined weight of the workers and tools/material which may be placed on them.

Scaffold components produced by different manufacturers shall not be intermixed.

Guardrails, midrails and toe boards shall be installed on all open sides of the scaffold. Guardrails, midrails and toe boards should be constructed from components supplied by the manufacturer. Where this is not possible, sound 2 X 4 inch limber must be used for the guardrails and 1 X 4 inch lumber for the toe boards.

Scaffold planks shall not be less than 2 X 10 inch. They must be cleaned and secured to prevent movement, and shall not extend beyond the outer supports more than 12 inches nor less than 6 inches.

All scaffolds shall be fully planked. No employee shall work from a single plank.

Scaffold planks shall be visually inspected prior to use and if defective, they must be destroyed immediately.

Access ladders shall be provided for each scaffold. Climbing off the end frames or using cross braces for access is not allowed.

Scaffolds shall be secured to the building or structure at intervals which do not exceed 30 feet horizontally and 20 feet vertically.

Overhead protection is required if employees are working on scaffolds and are exposed to overhead hazards. Such protection must be at least 2 X 10 inch planks or the equivalent.

Contractor's competent scaffolding person will post a scaffolding sign placard system to provide awareness of possible hazards near or on a scaffold.

The scaffolding sign placard system implemented by the competent person should include a DAILY inspection with that days competent persons initials, time of day (a.m./p.m.) and repairs or modifications made to the scaffold since the initial erection.

The placement of the placard on the scaffold should have a designated position for all scaffolds. All placards are to be placed at eye level, approximately at a height of 5 feet, adjacent to the access ladders for immediate employee hazard recognition.

Green placard = Scaffold Safe for Use

Yellow placard = Scaffold Under Construction, Fall Protection Required

Red placard = Scaffold Unsafe, Do Not Use

Scaffolds or work platforms shall not be altered by unauthorized personnel.

Contractors are required to develop a written plan if suspended scaffolds are used. The written plan must address all requirements in 29 CFR 1926.450. Additionally, a JHA must be developed and shared with personnel working on the suspended scaffold.

The perimeter around the scaffold shall be barricaded.

1. ROLLING SCAFFOLDS

    a. No one is permitted to ride rolling scaffolds while they are being moved.

    b. Rolling scaffolds shall only be used on level and suitable surfaces. Use leveling jacks, where required, or equivalent.

    c. The height shall not exceed four times the minimum base dimension.

    d. The work platform shall be fully planked. Planks must be cleated, or otherwise secured, to prevent movement.

    e. The scaffold shall have the casters or wheels in the locked position when the scaffold is not being moved.

    f. Obtain assistance when moving rolling scaffolds and assure the travel route is clear of holes and overhead obstructions.

    g. Re-inspect the rolling scaffold if moved more than 200' in an eight (8) hour work shift.

    h. Secure or remove all loose tools, materials and equipment before moving the scaffold.

2. INSPECTION OF SCAFFOLDS

a. All scaffolds shall be inspected by a competent person after being erected and prior to use.

b. All scaffolds shall be inspected by a competent person each day prior to being used.

c. All such inspection shall be documented, including re-inspection when applicable.

O. FLOOR, ROOF OR WALL OPENINGS

Any floor or wall opening, through which a worker, equipment, or material might fall, shall be covered with material of sufficient strength to support any load placed upon it, or guarded on all sides with standard guardrails and toe boards.

If a cover is utilized, it shall be secured to prevent accidental removal or displacement.

The floor covering must be able to support twice the intended load.

A sign shall be posted on the protective covering which states “Floor (Roof) Opening. DO NOT REMOVE.

All temporary protection shall be left in place until permanent protection has been installed or the hazard has been eliminated.

Ladder openings in floors and platforms shall be guarded by standard guardrails and toe boards on all sides.

When it is necessary to work inside the barricade around a floor opening, appropriate personal fall protection shall be worn.

P. PORTABLE HAND AND POWER TOOLS (ELECTRIC AND PNEUMATIC)

1. HAND TOOLS

a. Employees shall use only those tools, which are in good condition. The tool used shall be for the purpose for which it was designed. When proper and safe tools are not available for immediate work, contact your supervisor.

b. All tools shall be inspected at regular intervals and tools which develop defects while in use shall be removed from service, tagged, and not used again until deemed to be in safe working condition.

c. Impact tools with mushroomed heads, such as chisels, drills, hammers and wedges shall not be used until they have been reconditioned.

d. Hammers, axes, shovels and similar tools shall not be used if the handles are loose, cracked or splintered. The handles shall be replaced and never repaired with tape or wire.

e. Open-end and adjustable wrenches with sprung or damaged jaws shall not be used. Pipe wrenches with dull teeth shall not be used. Shims shall not be used to make a wrench fit.

f. Pipe or other extensions shall not be used on a wrench handle for added leverage, unless the wrench is specifically designed for such use.

g. Hammers with metal handles, screwdrivers or knives with metal continuing through the handle, metal rulers, metal tape lines, or tape lines containing metal wires shall not be used on or near energized electrical circuits or equipment. Insulation on hand tools shall not be relied on to protect users from an electrical shock.

h. Tools shall not be left lying around where they may cause someone to trip or stumble.

i. Tools shall not be thrown from place to place or from person to person.

j. Appropriate buckets, etc., firmly attached to hand lines shall be used to raise or lower tools from one elevation to another.

k. Tools shall be stored on appropriate tool boards, boxes, racks or compartments when not in use.

l. When working on or above grating, a suitable covering shall be used to cover the grating to prevent tools, or parts from dropping to a lower level where personnel and equipment are present. The lower danger area should be barricaded or guarded with appropriate warning signs posted.

2. POWER TOOLS (ELECTRIC AND PNEUMATIC)

a. No repairs or adjustment shall be made on a power tool (electric or pneumatic) unless the tool is disconnected from its power source. If it is necessary to be out of sight of the plug or connection while repairs are being made, attach a tog to the plug or connection.

b. Never operate a power impact tool unless the retainer ring and/or pin is in place and the head is against a solid object.

c. Damaged or defective tools must be removed from service immediately.

d. Power tools shall be hoisted or lowered by a hand line, bucket, etc., never by the cord or hose.

e. Cords and hoses must be kept out of walkways and off stairs and ladders. They must also be secured with care to prevent them from being damaged by other equipment or materials.

f. Safety switches shall not be bypassed or made inoperable.

g. All proper guards must be in place at all times.

3. ELECTRIC TOOLS

a. The non-current carrying metal parts of electric tools such as drills, saws and grinders shall be effectively grounded when connected to a power source, unless:

b. The tool is an approved double-insulted type, or

c. The tool is connected to the power supply by means of an isolating transformer or other isolated power supply, such as a 24-volt DC system.

d. All power tools shall be examined prior to use to insure general serviceability and the presence of all applicable safety devices. The electric cord end electric components shall be given an especially thorough examination.

e. Electric tools shall not be used where there is a hazard of flammable vapors, gases or dusts. Assure the ground prong is present.

4. PNEUMATIC TOOLS

a. Pneumatic tools shall only be operated by competent persons who have been trained in their use. Documentation of training shall be available onsite.

b. Pneumatic tools shall be secured to the hose by some positive means; also, each hose connection must be provided a safety-retaining clip.

c. These tools shall never be pointed at another person.

d. Compressed air shall not be used for cleaning purposes.

e. Compressed air shall not be used to blow dust or dirt from clothing.

f. Assure all appropriate personnel protective clothing is worn, including hearing protection, when necessary.

g. Prior to making adjustments or changing air tools, unless equipped with quick-change connectors, the air shall be shut off at the air supply valve ahead of the hose. The hose shall be bled at the tool before breaking the connection.

h. Metal-reinforced hose shall not be used near energized equipment. When this type hose must be used, proper clearances shall be maintained.

5. GRINDERS

a. Stationary grinders shall be mounted securely on substantial floors, benches or foundations to prevent excessive vibration or tipping.

b. Enclosures for grind wheels are required.

c. Tool rests shall be kept 1/8” (inch) from the wheel and gap distance shall be adjusted for wheel wear.

d. The abrasive wheel, disc, etc., shall meet or exceed the maximum RPM rating of the grinder.

e. Immediately before mounting, all wheels shall be closely inspected by the user to assure the wheels have not been damaged. Any wheel that shows damage or has been dropped on a hard surface shall not be used.

f. Guards are required on all portable grinders when the diameter of the wheel exceeds 2” (inches) in diameter.

g. The abrasive wheel and accessories shall meet or exceed the maximum RPM of the grinder.

h. The abrasive wheel shall be closely inspected for damage prior to mounting on the grinder.

i. Abrasive grinding wheels shall not be dropped into a gang box, onto concrete, or shall not have other materials or tools dropped on them.

j. When a grinder is first used at the beginning of the job, it should be brought up to operating speed with the wheel oriented so that any breakage will be deflected away from the user and other personnel.

6. MACHINE GUARDS AND SAFETY APPLIANCES

a. Machine guards on components such as flywheels, belts and pulley drives or pump couplings shall not be removed unless the equipment is de-energized and tagged and locked out.

b. If guards are removed to make repairs, the guards shall be replaced before the machinery is put back in operation.

c. Only properly trained and authorized personnel shall make any adjustments to safety appliances such as relief valves, vents or overspeed trips.

d. Safety appliances such as relief valves, vents or overspeed trips, etc., shall not be bypassed or made inoperative without express concurrence of management and the project safety representative.

Q. MATERIAL HANDLING AND STORAGE

1. POWERED INDUSTRIAL TRUCKS (FORKLIFTS)

When the use of a forklift is called for, the operator of the forklift must be certified in its use.

OSHA regulations (1926.602d) states: “the employer shall ensure that each powered industrial truck (forklift) operator is competent to operate a powered industrial truck (forklift) safely, as demonstrated by the successful completion of the training”.

The operator must have his certification card, which signifies successful completion of this training, on his person whenever operating the forklift.

2. STORAGE

All material must be properly stacked and secured to prevent sliding, falling or collapse. Aisles, stairs and passageways must be kept clear to provide for the safe movement of employees and equipment and to provide access in emergencies.

Pipe, conduit and bar stock shall be stored in racks or stacked and blocked to prevent movement.

The quantity of materials stored on scaffolds, platforms or walkways must not exceed that required for one day's operations or the rated capacity of the scaffold or platform

Protruding nails must be bent or removed when forms or materials are stripped or uncrated.

Materials shall not be stored in such a manner that they block access to fire exits, electrical panels or emergency equipment.

3. MANUAL LIFTING AND CARRYING

When lifting heavy or awkward objects, the employee shall obtain the assistance from another employee or use power-lifting equipment.

When two or more persons are carrying an object, each employee, if possible, shall face the direction in which the object is being carried.

When two or more employees are lifting or pulling together, one person shall give the signals for the group. Never carry an object alone that prevents your seeing the route of travel.

When lifting an object, crouch or squat with your feet close to the object to be lifted, secure good footing with feet apart, take a firm grip with the palms, bend the knees, keep the back straight with the chin tucked in, lift by using the leg and thigh muscles, and hold the load close to your body.

4. PAINTING/CHEMICAL USE

The Contractor shall take appropriate measures to minimize the spread of airborne paint particles, i.e., hand tarps/visqueen, cover other equipment/material and cease outside spraying during windy conditions.

The Contractor shall provide adequate ventilation in enclosed areas.

Employees, whether applying or stripping paint, shall use all required personal protective equipment – when in doubt contact your supervisor.

Consult the Material Safety Data Sheet (MSDS) for all precautionary measures.

No spray painting will be permitted in the presence of open flames (acetylene torches, gas burners, welding operations, heaters, furnaces, boilers, etc.) due to the possibility of igniting flammable materials contained in the paint products.

Please refer to VII (B) for detailed information on the respiratory safety requirements.

R. BARRICADING / TRAFFIC CONTROL

1. BARRICADES

Barricades shall be maintained around excavations, confined spaces or other hazardous areas at all times.

Barricades may be 2” X 4” planks attached to upright stations or yellow and black ribbon. If 2” X 4” planks are used, they shall consist of handrails and midrails. Handrails shall be 42” from the floor or ground and the midrail shall be placed 24” from the floor or ground.

If the yellow and black “caution” tape is used, it shall be the plastic-coated, woven nylon type. Plastic or polyethylene type shall not be used.

Snow fence shall be used in lieu of barricade tape at construction areas where pedestrian traffic is present or which can cause caution tape to be insufficient.

2. TRAFFIC CONTROL

When working in or near a public road or street, barricades shall comply with IDOT Standards/Specifications for Traffic Control. This shall include, but not be limited to, spacing, color-coding, size and lighting.

All barricaded areas shall be inspected twice per week, once during daylight hours and once during the hours of darkness. The inspection form shall be completed after each inspection and forwarded to the CM’s Manager of Safety.

When flag persons are used, they shall have been trained and certified a flag person by a Laborer’s Union or some other certifying agency. The flag person shall wear an appropriate traffic vest, PPE and be equipped with a traffic paddle or flag during daytime activity and an illuminated wand for night work. Any employee functioning as a flag person shall have in their possession a current certification card. Employees not trained and certified may not perform flagging duties.

Reflective vests shall be worn by all personnel working on Roadways, Taxiways, Runways and Projects where employees are in the area of vehicular traffic and/or airport Operations.

A daily traffic log must be completed and signed off. These records must remain on file for review.

S. SAFE USE OF EQUIPMENT/GENERAL EQUIPMENT

1. Any Contractor employee operating a piece of equipment that the employee sits in will be required to wear a functional seatbelt, unless the equipment lacks ROPS (Rollover Protection System) or is designed for standup operation.

2. Safety glasses and reflective vests shall be worn while operating equipment. Hardhats are required when outside a protective cab.

3. Functional fire extinguishers will be secured and located in all contractor equipment.

4. Daily equipment inspection sheets shall be completed by the operator and remain in the cab, available for review upon request.

5. Functional amber MARS lights must be activated at all times while equipment is operating, (Exception: Tracked Equipment).

6. Functional back up and movement alarms must be operating on all moving equipment.

7. All Contractor’s operators must be trained on the proper operation of the piece of equipment they are using, and certified or licensed where required.

8. All vertical or articulating machinery that is used to lift workers or equipment must be equipped with a vertical and horizontal motion detection signal.

9. Impaired visibility caused by the equipment or the location of the equipment shall require the use of a spotter for the movement of equipment or vehicles on the construction site.

T. GENERAL SAFETY COMMUNICATION

Regardless of the method of communication, all Contractor's supervisors and/or foreman must be able to verbally communicate with their employees. If there are employees on the jobsite that choose to communicate with a language other than English, then the Contractor shall, at all times work is conducted, have supervisory personnel on the jobsite that is proficient in the chosen language of the employees and English. The ability to verbally communicate with all employees is paramount to safety training and hazard abatement.

U. STEEL ERECTION

Safety Standards are governed by OSHA, Section 1926R. Effective January 18, 2002, Subpart R was revised. Contractors involved with steel erection are required to comply with all requirements of Subpart R. The key provisions of the revised steel erection standard include:

1. The site layout and construction sequence
2. Site-specific erection plan
3. Hoisting and rigging
4. Structural steel assembly
5. Column anchorage
6. Beams and columns
7. Open web steel joists
8. Systems-engineered metal buildings
9. Falling object protection
10. Fall protection (The airport 6' fall protection rule shall supersede the 1926R fall protection requirements.)
11. Training

This subpart addresses hazards associated with, but not limited to hoisting, landing and placing decking; column stability; double connections; working under loads; landing and placing steel joists and falls to lower levels. These provisions are specifically addressed to ALL EMPLOYEES exposed to any of the conditions aforementioned and is NOT specific to the iron workers trade only.

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VII. HEALTH PRECAUTIONS

A. HAZARD COMMUNICATION

1. DEFINITIONS

Article: A manufactured item which is formed to a specific shape or design during manufacturer has end use functions dependent in whole or in part upon the shape or design, and which does not result in exposure to a hazardous chemical under normal conditions of use.

Chemical: Any element, compound or mixture of elements and/or compounds, excluding articles, food, drugs or cosmetics intended for personal consumption, wood, wood products, tobacco and tobacco products.

Name: Scientific designation of a chemical in accordance with the nomenclature system of the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS).

2. POLICY

This program is designed to insure that the Contractor provides information to his employees at all levels regarding chemical projects to which they are exposed. It will be accomplished by the following:

Contractors shall maintain a list of all hazardous chemical products used and stored onsite. A copy of all MSDS shall be submitted to the Contractor safety representative prior to being brought onto the site. A master index will be located in the CM's Manager of Safety's and the Contractor's office.

Appropriate labeling on containers of all chemical materials used. All labeling shall conform to the National Fire Protection Association (NFPA) systems.

Making available Material Safety Data Sheets (MSDS's) for all chemical products used at the airport.

Employee training to recognize and interpret labels, warnings, color-coding, signs, etc., that are affixed to containers so that they can properly protect themselves against potential hazards.

Employee training to understand the elements of the Material Safety Data Sheet and to recognize possible risks to health and physical harm.

This written program shall be made available, upon request to employees, their designated representative(s) and all City of Chicago, State and Federal officials who have proper authority.

3. CHEMICAL PRODUCT INVENTORY LISTS AND MATERIAL SAFETY DATA SHEETS

A list of all hazardous chemicals and a copy of MSDS's used shall be maintained in the CM's Manager of Safety's office.

Each Contractor shall be required to maintain a copy of a chemical inventory and a copy of all MSDS's for chemicals used by their employees or employees of their subcontractors. These copies will be maintained onsite.

4. LABELS

Hazardous chemicals received onsite shall be properly labeled by the manufacturer/supplier. If labels are not provided, the supplier shall be contacted to get the specific labels. Containers will not be received onsite without labels. These labels must provide the following information:

a. Identity of the chemical projects or substances in the container
b. Hazard Warnings
c. Name and address of the manufacturer or other responsible party
d. The labels must not be removed and must be replaced if illegible

All containers of hazardous chemical projects, including laboratory bottles, solvent cans and dispensers must be labeled and must be of proper construction in order to contain the chemical.

5. EMPLOYEE TRAINING AND INFORMATION

Contractors shall provide to employees whose work includes the use of hazardous chemicals training in the handling of chemical products. There will be periodic reviews of the training program.

The training program will provide instruction in the following:

a. The location and availability of the MSDS sheets
b. Explanation of the MSDS data and manufacturer's label
c. Methods and observations to detect the presence, or release, of hazardous chemicals in the work area.
d. Protection measures for employees. This includes safe work practices and available protective equipment such as face and eye protection, outerwear, gloves and respirators.

6. INFORMING OTHER CONTRACTORS

Information concerning the location and hazards of hazardous chemicals present in the work area must be made available to other contractors. Copies of the appropriate Material Safety Data Sheets shall be given to the Contractor's supervisory personnel by the Contractors Safety Representative when it is apparent that contractor employees are working in an area where hazardous chemicals are used.

B. RESPIRATORY PROTECTION

1. RESPONSIBILITY

The Contractor shall be responsible for administration of an effective respiratory protection program. They may delegate the authority for this assignment to the safety specialist. However, it remains the Contractor's responsibility to assume full compliance with all sections of this program.

2. HAZARD ASSESSMENT

Proper written assessment of the hazard is the first important step to protection. This requires thorough knowledge of the process, related equipment, raw materials and end products and by-products which can possibly create an exposure hazard. Air samples must be taken with proper sampling instruments during all conditions of operation to assess the atmosphere for oxygen content in concentration levels of particular and/or gaseous contaminates. The sampling device and the type and frequency of sampling will be dictated by the exposure and operating conditions.

3. HAZARD CONTROL

As operating conditions within an active construction site make many engineering controls difficult, if not impossible to use, considerable emphasis must be given to providing proper and adequate personal protective equipment. However, consideration should be given to using less toxic materials in the process, providing suitable exhaust ventilation or isolation.

4. SELECTION

Since there are many types of respiratory protective devices, it is imperative that they be selected with utmost care to insure that the proper protection is afforded and that personnel are thoroughly trained in their use and limitations. Only equipment approved by the National Institute for Occupational Safety & Health (NIOSH) will be used.

Respiratory protective devices vary in design, application and protective capability. The user must, therefore, assess the inhalation hazard and understand the specific use and limitations of available equipment to assure proper selection. Respiratory protective devices fall into three classes; air purifying, supplied air and self-contained breathing apparatus.

5. TRAINING

For safe use of any respiratory protective device, it is essential that the user be properly instructed in the selection, use and maintenance. Both supervisors and workers shall be so instructed by competent persons. Minimum training shall include the following:

Instruction in the nature of the hazard, whether acute and/or chronic, and an honest appraisal of what might happen if the proper device is not used.

Explanation of why a more positive control is not immediately feasible. This shall include recognition that every reasonable effort is being made to reduce or eliminate the need for respiratory protection.

A discussion of the devices, capabilities and limitations.

a. Instruction and training in actual use (especially a respiratory protective device for emergency use) with close and frequent supervision to assure that it continues to be properly used. Classroom and field training to recognize and cope with an emergency situation.

b. Training shall provide the employees an opportunity to handle the device, have it fitted properly, test its face piece to face seal, wear it in normal air for long periods and finally, to wear it in a test atmosphere. Respiratory protective devices shall never be worn when a satisfactory face seal cannot be obtained. There are many

conditions that may prevent a satisfactory face seal from being worn, such as excessively long side burns, beard, temples on glasses, or an unusually structured face.

All training will be documented and that documentation maintained onsite.

6. INSPECTION, MAINTENANCE AND REPAIR

Proper inspection, maintenance and repair of respiratory protective equipment is mandatory to assure success of any respiratory protection program. The precise nature of the program will vary widely depending on the type of equipment involved. The goal is to maintain the equipment in the conditions providing the same effectiveness it had when manufactured.

All equipment must be inspected periodically before and after use. For equipment used only in emergencies, the period between inspections should be no more than one month. A record shall be kept of all inspections by date with the results tabulated. The manufacturer's recommendations shall be followed precisely.

All respiratory protective equipment shall be cleaned and disinfected after each use. Other maintenance includes replacement of disposal elements, such as filters and cartridges whenever such replacement is necessary. Following the cleaning of equipment, it shall be placed in a plastic bag to maintain it free of contamination.

Replacement of other than disposable parts and any repair shall be done only be personnel with adequate training to insure that the equipment is functionally sound after the work is complete.

7. MEDICAL SURVEILLANCE

Workers will not be assigned to any operation requiring respiratory protection until a physician has determined that they are physically and psychologically capable of performing the work using the respiratory protective equipment. Documentation of the physical exams will be maintained onsite.

C. HEAT STRESS

1. DEFINITIONS

Heat stress - A combination of environmental conditions, work demands and clothing requirements that tend to increase body temperature. Heat stress can diminish work performance and adversely affect worker health and safety.

Note: Environment conditions include high temperature/ high humidity and heat from hot surfaces.

Heavy Work - Heavy lifting, pushing or pulling as in pick and shovel work or climbing ladders and stairs, turning valves and lifting or moving heavy objects.

Moderate Work - Sitting with heavy arm or leg movement, standing with some walking about or walking about with moderate lifting/pushing and descending stairs/ladders, installing insulation or manual valve alignment (ease).

2. RESPONSIBILITY

Supervisor shall:

- Plan work tasks to reduce heat stress potential
- Emphasize the safe work practices in the Heat Stress Policy
- Insure the use of the “buddy system” and monitoring in areas where heat exposure is severe due to protective clothing requirements.

Employees shall:

a. Inform their supervisor of any medication which may preclude the employee from working in a heat stress area. These medications include:
   - Diuretics
   - Vasodilators
   - Central nervous system inhibitors
   - Anticholinergic medications
   - Antihistamines
   - Muscle relaxants
   - Tranquilizers
   - Sedatives
   - Amphetamines
   - Atropine

b. Inform their supervisor of recent sunburns or any illness involving fever, vomiting or diarrhea as these conditions may dehydrate a person.

c. Immediately notify the person in charge and leave the area when feeling discomfort from heat stress, e.g,
   - Dizziness
   - Headache
   - Nausea
   - Fainting

   Note: When working outside, rest in the shade

d. Follow these directions to reduce the potential of heat stress problems.
   - Increase fluid intake
   - Do not skip meals
   - Avoid alcohol use

3. DESCRIPTION OF HEAT STRESS

Under heat stress conditions, the body produces heat faster than it can be shed to the surrounding environment or when the body absorbs heat from the surrounding environment. The body must maintain itself between 98 degrees – 100 degrees F. To do this, the body increases blood flow to take heat from the muscles to the skin and increase perspiration to cool by evaporation.

4. RECOGNITION AND TREATMENT OF HEAT ILLNESSES

ILLNESS	SYMPTOMS	TREATMENT
Heat Stroke	Dry skin, usually red; mottled of cyanotic; confusion, loss of consciousness; convulsions, fatal if treatment is delayed.	Immediate and rapid cooling by immersion in chilled water or wrapping in a wet sheet.
Heat Rash	Red rash with blister-like bumps; prickling sensation during heat exposure.	Intermittent relief from heat, maintain dry skin, prevent secondary infection.
Heat Cramps	Painful spasms of muscles used during work; onset during or after work hours.	Drink more water, eat salty foods.
Heat Syncope	Fainting while standing, erect and immobile in heat.	Remove to cooler area; rest in recumbent position; drink water.
Heat Exhaustion	Fatigue; nausea, headache, giddiness, skin clammy and moist; may faint with rapid pulse and low blood pressure.	Remove to cooler area. Rest in reclined position; administer fluids by mouth.

5. TRAINING

Sufficient annual training shall be provided to cover heat stress problems employees could experience. The training should include:

- Recognition and treatment of heat stress
- Safe work practices
- Instrumentation for heat stress monitoring
- Physiological heat exposure limits/WBGT
- Documentation of training will be maintained onsite

D. CONFINED SPACE ENTRY

All confined space work shall be done under the supervision of a competent person.

1. INTRODUCTION

The Contractor shall have the responsibility for recognizing areas considered to be a confined space and for notifying employees assigned to such locations. The Contractor shall be responsible for providing equipment and special instructions for the workmen, such as ventilating units, respirators, safety belts, lifelines, all atmospheric testing and testing equipment, and all conformance to all applicable OSHA standards.

The “buddy” system shall be used and an observer shall tend all workmen in a confined space. Rescue procedures shall be agreed upon beforehand. The Contractor shall submit a complete Confined Space Entry Program to the CM’s Manager of Safety prior to starting

work. The Contractor shall also be responsible for notifying the Chicago Fire Department prior to beginning work in a confined space. Further, Job Hazard Analysis documentation and discussion related to specific confined space operations shall be submitted to the CM's Manager of Safety.

The hazards encountered and associated with entering and working in confined spaces are capable of causing bodily injury, illness, and death to the worker. Accidents occur because of failure to recognize that a confined space is a potential hazard. Hazard potential is magnified when employee workspaces, which previously have been free of contamination, are for various reasons subject to conditions which alter their normal atmospheres. An employee's awareness of conditions in and around his or her work areas must be instilled in those working in confined spaces. An understanding of the nature of any problem shall be communicated to affected employees by their employers, so that an awareness of entry into the space will be achieved.

2. DEFINITION

A confined space is defined as any space having limited entry or exit (egress) which may be subject to the development of any oxygen-deficient atmosphere or the accumulation of toxic or flammable contaminants. Confined spaces may include, but are not limited to the following structures or enclosures: Silos, boilers, vaults, storage tanks, plating and degreasing tanks, process vessels, bins, sewers, manholes, catch basin, pipelines, underground utility vaults and ducts. Also included are open top spaces such as pits, tubs, tunnels, press pits and underground shafts or other excavations which may be poorly ventilated and permit the presence of a hazardous atmosphere.

3. HAZARDS

A variety of hazards may be associated with a confined or enclosed space, and knowledge of them is essential when evaluating the condition of such spaces. A list of these hazards include:

a. An atmosphere deficient in oxygen due to its displacement by other gases or vapors. An oxygen-deficient atmosphere is one, which contains less than 19.5% oxygen by volume. An oxygen-enriched atmosphere exceeds 23.5% oxygen.

b. A Lower Explosive Limit (LEL) that exceeds 10%.

c. Toxic, flammable, or explosive dusts, gases, vapors, fumes, smoke or mists.

d. Electrical equipment such as tools or lighting which may present the possibility of electrical shock or serve as a source of ignition.

e. Exposure to extremes in temperature.

f. Limited access opening which may hinder the entry of rescue personnel.

g. The operation of tumblers, mixing blades, crushes, agitators, pumps, rams or conveyors.

h. Insufficient illumination.

i. Obstacles of distance between the work location and point of exit.

j. Hydraulic oils, gases or other fluids contained within pressurized lines.

k. Improper, inadequate, or poorly maintained respiratory protective or rescue equipment.

l. Absence of an attendant stationed outside of the entrance.

m. Lack of ability to communicate between inside workers and outside personnel.

4. PROCEDURES FOR ENTRY

The following are conditions for entry into all confined spaces:

Break or block supply lines or lock out valves on those supply lines servicing the vessel or space. The flow of material into confined spaces while employees are working there must be eliminated. Caution must be exercised while breaking supply lines to prevent exposure to hazardous material they may contain.

Lock and tag out energy sources to moving parts inside the space such as agitators, converters, or mixing blades.

Before entry, the confined space shall be purged by leaving access doors or hatches open. Natural ventilation is then possible, or mechanical ventilation may be provided by a portable blower. When portable blowers are used, intakes to this air-moving equipment must be positioned so that only clean air is introduced into the confined space. Any accumulation of material which could make the atmosphere hazardous, such as sludge or liquids, shall be removed before entry where possible. Air sampling is required prior to any entry into a confined space.

Mechanical ventilation must be provided where welding or cutting is done in confined spaces. All gas or oxygen cylinders and manifolds shall be located outside the confined spaces.

When used in confined spaces, portable lights and electric tools shall be grounded unless they are UL approved double insulated. Work in damp, confined spaces or metal tanks or enclosures requires exceptional protection from electrical hazards. Ground fault circuit interrupters, battery-powered equipment, or approved protected low voltage systems shall be used.

Sufficient lighting shall be provided in the confined space without use of matches or an open flame. Portable lights shall have protective guards to prevent bulb breakage. Explosion-proof plug-in lights, flashlights, and electric motors shall be used in confined spaces where flammable materials are present.

Where contact with any contaminants which could result in skin or eye irritation is possible, protective clothing shall be worn to prevent contact. This may include face shields, goggles, protective hats, gloves, sleeves, and rubber boots and rain jackets. Head protection is required except where it might constitute a hazard.

Prior to entry, workers shall be made familiar with diagrams and plans of the interior of the confined space, ladder locations, access openings and process lines.

The area surrounding the confined space entry point shall be kept clear of all debris of equipment, and the number of employees entering the space shall be kept to a minimum.

The entry permit must be hung at point of entry. A written record must be maintained at the point of entry of the name and time entered/exited.

When entering confined spaces, employees shall attach their personal identification badges to the confined space entry permit. They shall reclaim their badge upon leaving the confined space.

When an employee enters any confined space such as, but not limited to, a bin, silo, hopper or tank which contains bulk or loose material that could engulf the employee, the supply of material shall be shut off and the discharge shall be shut off if feasible.

The employee shall wear an approved, full safety body harness attached to an approved lifeline. The lifeline shall be strung from overhead and down to the employee where it is attached to the "D" ring on the full safety body harness and kept reasonably taut at all times. When this is done, another employee shall be in sight or within hearing distance.

Safety harnesses and lifelines shall be so attached to the employee entering the confined space that his body cannot be jammed in the opening.

Whenever employees are in a confined space, there shall be an attendant immediately outside the opening who shall have been trained in attendant duties and who shall be performing no functions other than that of an attendant.

Communications, such as visual, voice, or signal line shall be maintained between a rescue person outside the confined space and all employees inside the space. A mechanical means to lift the employee out of the confined space shall be provided.

In order to enhance communications, work being performed in confined spaces shall be planned far enough in advance so that responsible for the testing will schedule it accordingly.

5. AIR SAMPLING

Air sampling is necessary before entry is made. It is the responsibility of the Contractor whose employees will be entering any confined space (new or existing) to provide testing.

An extension wand attached to the air monitor shall be used when entering a horizontal type confined space.

Carbon monoxide levels must be monitored regularly in enclosed areas when temporary heaters, construction equipment and portable generators are being used. Should gases, vapors, fumes, ducts or mist levels be above the allowable OSHA Threshold Limit Values (TLV), the Contractor shall reduce them through engineering controls or have a respiratory program in place. In either case, the Contractor must provide maximum protection for those exposed, and comply with all City of Chicago, State of Illinois and Federal regulations.

Responsibilities for air sampling are as follows:

a. Contractor supervision has the responsibility for sampling air in the confined spaces they plan to access. Training for this duty will be provided by the Contractor.

b. Copies of test results shall be maintained onsite.

Where possible, testing of confined spaces must be conducted from outside the space. Where remote testing is not possible and entry must be made in order to perform the appropriate testing, respiratory protection, lifelines, and other necessary protective equipment and procedures designed for atmospheres immediately dangerous to life or health must be utilized while conducting these tests.

At no time shall sources of ignition be introduced into questionable atmospheres while testing is being done. This requirement will necessitate the use of spark proof flashlights in areas being tested, if such lighting is needed.

Prior to entry, all confined spaces shall be monitored and the atmosphere shall not exceed the following limits:

Oxygen	Not less than 19.5% or more than 23.5%
Combustible	10% of LEL
CO	35 P.P.M.
H2S	10 P.P.M.

Note: The Contractor shall be responsible for the testing of confined spaces, the issuing of permits, the training of employees, and the enforcement of all applicable standards.

E. DUST CONTROL PLAN

Each Contractor is responsible for controlling dust that:

a. Might endanger the health of employees or others.
b. Creates a nuisance to the general operations of the airport and public safety.
c. Creates a nonconformance to environmental regulations.

Should the dust levels be above the allowable Threshold Limit Value (TLV), the Contractor shall reduce them either through engineering controls, watering trucks, or sweepers. The Contractor must provide maximum protection for those exposed to dust, and comply with all City of Chicago, Chicago Department of Aviation, State of Illinois and Federal regulations.

The Contractor is responsible for keeping service roads, taxiways, and runways on which they are using or working, clean and free of debris.

F. HEARING PROTECTION

Each employee shall wear hearing protection in areas designated as high noise areas.

Contractors, foremen, supervisors and managers are responsible for insuring that each employee under their direction fully complies with the provisions of this program.

1. NOISE ASSESSMENT

Contractor shall be responsible to conduct general noise level surveys and personal monitoring to assess the need for hearing protection.

A survey shall be made initially and whenever there is a major change in operating conditions. If the survey indicates high noise areas (90 dBA or greater), the area shall be posted for hearing protection requirements and periodically, employees shall use personal monitors to identify inclusion in the program. The survey and personal monitoring shall be performed using sound level meters or noise dosimetry under the “A” weighing scale (slow response).

If the 8-hour time weighted average (TWA) equals or exceeds 85 dBA, the employee shall be enrolled in the Hearing Conservation Program.

The Contractor shall notify each employee exposed at or above the action level of an 8-hour TWA or 85 dBA, of the result of the monitoring.

2. HEARING PROTECTORS

The Contractor shall make hearing protectors available to all employees exposed to an 8-hour time weighted average of 85 dBA or greater at no cost to the employees. Hearing protectors shall be replaced as necessary.

Each supervisor, operator, etc., shall insure that hearing protectors are worn in all posted areas by all employees.

Employees shall be given the opportunity to select their hearing protectors from a variety of suitable hearing protectors (three minimum) where possible.

Training in the use and care of all provided hearing protectors shall be given to employees.

Proper initial fitting shall be assured and the correct use of all hearing protectors shall be supervised.

3. EMPLOYEE TRAINING

The Contractor shall provide a training program of all employees who are exposed to a noise level at or above an 8-hour time weighted average of 85 decibels. Training shall be documented with the documentation being maintained onsite

The training program shall be repeated annually for each employee working in the affected area. Information provided in the training program shall be updated to be consistent with changes in protective equipment and work processes. A copy of the training program and documentation of attendance shall be provided to the CM's Manager of Safety.

The training program shall include:

- The effects of noise on hearing

The purpose of hearing protectors, including the advantages, disadvantages, and attenuation of various types, plus instruction on selection, fitting, use and care.

G. DRUG-FREE WORKPLACE

1. POLICY

All employees shall report to work in a physical condition that will enable them to perform their work in a safe and efficient manner.

All employees are prohibited from using, possessing, dispensing or receiving "prohibited substances" on CDA facilities.

The term "prohibited substances" (as used throughout this policy) means and includes illegal drugs (including controlled substances, look-alike drugs, designer drugs, synthetic drugs, unauthorized prescription drugs, prescription drugs not used for their prescribed purpose and alcohol).

The term CDA Facility (as used throughout this Policy) includes all property, facilities, land, building, structures, automobiles, trucks and other vehicles including construction job sites over which CDA has responsibility.

All employees are prohibited from reporting to work with a “measurable amount of a prohibited substance” in their system.

The term “measurable amount of a prohibited substance” (as used throughout this policy) is defined in the following table:

2. SCHEDULE OF MEASURABLE AMOUNTS OF PROHIBITED SUBSTANCES

	Per GC/MS Test	Per Emit Test
Amphetamines /Methamphetamines	1000 ng/ml	500 ng/ml
Barbiturates	300 ng/ml	150 ng/ml
Benzodiazepines	300 ng/ml	150 ng/ml
Marijuana	100 ng/ml	15 ng/ml
Cocaine	300 ng/ml	150 ng/ml
Methaqualone	300 ng/ml	150 ng/ml
Propoxyphene	300 ng/ml	150 ng/ml
Methadone	300 ng/ml	50 ng/ml
Opiates	300 ng/ml	300 ng/ml
Phencyclidine	25 ng./ml	25 ng/ml

Any employee taking “prescribed medication” which may affect their ability to perform their duties in a safe and efficient manner” is required to notify their immediate supervisor that such medication is being taken.

The term “prescribed medication” which may affect an employee’s ability to perform the employee’s work in a safe and efficient manner, means any prescription medication where the label indicates that the drug may cause drowsiness, imbalance, or includes a caution with regard to operating a vehicle or machinery, or may impair their ability to perform the work safely and efficiently.

3. ENFORCEMENT OF RULES

The CDA or the CM, in order to enforce the rules, reserve the following rights:

a. Right to Inspect.

The CDA or the CM have the right at all times, under all circumstances, and for any reason to inspect CDA controlled premises.

The CDA or the CM has the right to inspect employees and their personal property, including but not limited to; their lockers, baggage, desks, tool boxes, clothing and vehicles located on CDA controlled premises if, and only if, the CDA or designated representative have a reasonable suspicion that the employee has violated some portion of this policy.

The CDA or the CM will report the results of any search or inspection, which results in the discovery of prohibited substances, to the appropriate law enforcement authorities.

b. Right to Jobsite Access.

The CDA and its authorized representatives, or order to enforce the rules, reserves the following rights:

Note: The designated CDA representative has the same authority and rights as the Construction Manager (CM) under this section.

The Construction Manager has the right at all times, under all circumstances, and for any reason to access any jobsite. Once site is accessed, CDA or the designated representative can operate as it deems fit to maintain a safe jobsite.

c. Right to Require Drug / Alcohol Tests

The CDA or designated representative has the right to require a Contractor's employee to submit to drug and alcohol testing (as described below) if any one or more of the following occurs.

- If the employee is involved in or has directly or indirectly caused an "accident". The term "accident" shall mean any event or occurrence resulting in injury to a person or damage to property.

- If the employee is involved in or has directly or indirectly caused an "incident". The term "incident" shall mean an event or occurrence which has all the attributes of an accident, except that no injury was caused to a person or damage caused to property.

- If CDA or designated representative have a "reasonable suspicion" that a violation of this policy has occurred. The CDA or designated representative shall have such a "reasonable suspicion" in the event of erratic behavior such as noticeable imbalance, incoherence, and/or disorientation, or body odors of the employee.

d. Right to Obtain Information Concerning Prescription Medication.

The CDA or designated representative reserves the right to request an employee to identify the type of prescription medication and the dosage of prescription medication which is being taken by the employee and the period of time during which the employee expects to be taking the medication. If the CDA or designated representative determines that the prescription medication is likely to impair the employee's ability to perform the employee's assigned work safely and efficiently, then the CDA or the CM's Manager of Safety may ask that the employee be reassigned to a project not on CDA property.

4. PROCEDURES FOR DRUG OR ALCOHOL TESTING

If an employee is requested to submit to a drug and alcohol test, then the testing will be conducted in the following manner:

a. When the Tests will be Required

The CDA or CM's Manager of Safety, through the Contractor's personnel (i.e., A Corporate Officer, Risk Manager, Manager of Safety, Superintendent, General Foreman and/or Foreman) will orally request the employee to submit to a drug and alcohol test and explain to the employee the reason why the tests are being

requested. The employee then is obligated to promptly submit to the tests as soon as practicable. In this regard, a representative will be entitled to accompany the employee to the Contractor testing facility.

b. Who will take the samples

The tests on the samples shall be conducted by an independent, certified or licensed, drug testing facility selected by the medical facility or by the medical facility itself. The employee shall be requested to sign a consent form authorizing the testing facility to conduct the tests. The tests shall be conducted at the expense of the Contractor.

c. What test shall be performed

The initial drug screening procedure or test shall be performed using an Enzyme Multiple Immunoassay Test (Emit Test). If the Emit Test indicates the presence of a measurable amount of a prohibited substance, then a second Gas Chromatography/Mass Spectrometry Test (GC/MS Test) shall be utilized.

d. What constitutes a “Positive” test for a prohibited substance

If the GC/MS Test confirms the presence of a measurable amount of a prohibited substance, then the test shall be deemed to be “positive” for the prohibited substance.

e. Alcohol Testing

All breath alcohol testing shall be conducted through use of an Evidential Breath Testing (EBT) device by a trained Breath Alcohol Technician. If the result of the screening test is less than 0.04 percent alcohol concentration the result of the test is negative and no further testing shall be done. If the result of the screening test is an alcohol concentration of 0.04 or greater, a confirmation test shall be performed. The confirmation test shall be performed not less than fifteen (15) nor more than twenty (20) minutes after completion of the screening test.

f. What constitutes a “Positive” test for alcohol

If the result of the screening test and confirmation test are 0.04 percent alcohol concentration or greater, the result is positive.

g. Consequences of a “Positive” drug or alcohol test

If an employee’s test is positive for a prohibited substance, then the employee shall be deemed to have violated this Policy prohibiting the employee from reporting to work with a measurable amount of a prohibited substance in the employee’s system.

5. EMPLOYEE’S RIGHTS

In connection with the testing procedures, the employee has the following rights:

a. The Contractor shall direct the testing facility to preserve part of the original samples for testing by the employee at the employee’s expense.

b. The Contractor shall provide the employee with copies of the test results.

c. The Contractor shall keep the results of the tests confidential to the extent practicable.

d. The Contractor shall disclose the results of the tests only to persons who have a legitimate need to know the test results.

6. DISCIPLINARY ACTION FOR VIOLATIONS OF RULES

An employee who uses, possesses, dispenses or receives prohibited substances on airport property may be immediately removed and may be permanently barred from working at a CDA facility.

An employee who reports to work with a measurable amount of a prohibited substance in the employee's system shall be immediately removed and may be permanently barred from working on a CDA facility.

If an employee refuses to cooperate with the drug or alcohol testing procedures, then the employee shall be immediately removed and may be permanently barred from working at a CDA facility.

If the employee refuses to permit the CDA or CM's Manager of Safety to conduct a search or inspection permitted under this Policy, the employee shall be immediately removed and may be permanently barred from working at a CDA facility.

If an employee fails to report the employee's use of a prescribed medication which will or may impair the employee's ability to perform the employee's job in a safe and efficient manner, then the employee shall be immediately removed and may be permanently barred from working at the City's Airport.

7. CONCLUSION

The Contractor's compliance and cooperation with this policy, including cooperation with CDA or the CM's Manager of Safety requested drug and alcohol testing and inspection procedures, is a condition of employment. The failure of a Contractor to comply and cooperate with this policy shall be grounds for disciplinary action, including termination of the contract.

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VIII. EMERGENCY PROCEDURES

A. INTRODUCTION

The Contractor shall prepare written procedures governing actions to be taken in the event of serious injury, property damage or catastrophic events. These procedures shall be updated as the work progresses. Emergency procedures will include necessary action to be taken, who will take them, names of persons to be notified, and location of emergency equipment and supplies. These procedures will be provided to all key personnel involved and will be posted in conspicuous locations throughout the project.

B. GENERAL

At the time of the project job start-up, copies of emergency procedures shall be given to all supervisors. The Contractor's Superintendent shall review the program with each supervisor to be certain they understand the requirement and their responsibilities. Upon completion of the review, the project superintendent shall note in his job diary that he reviewed this procedure with the foremen, giving all pertinent information.

C. GENERAL PROCEDURES

All emergencies are to be handled by the highest-ranking person present, with whoever is available to assist.

Ranking person shall delegate responsibility for making emergency phone calls.

Emergency phone numbers are to be placed at conspicuous places throughout the jobsite.

The need for an ambulance or other emergency equipment shall be determined by the site personnel, except where a catastrophic event has occurred. In the event of a catastrophic occurrence, public authorities shall govern.

Where specific procedure has not been established, relative judgment should be used in determining what course to follow.

In all instances the CM's Manager of Safety shall be notified immediately upon completion of emergency first aid treatment.

1. FIRE

    a. Make a safe attempt to extinguish, but in no way endanger yourself or others. At the same time, have the Chicago Fire Department notified. Assign an employee to meet the fire department at the site entrance to provide directions to the location of the fire.
    b. Insure that employees in adjoining work areas are evacuated to a safe area.
    c. Keep all spectators and non-essential employees away from the fire.
    d. If explosive-type materials are involved immediately evacuate all personnel.
    e. Make no comments to media representatives. Refer all inquiries to the Supervising Consultant.

2. ACCIDENTS INVOLVING SERIOUS INJURY OR DEATH

a. Provide for necessary first aid. Send for medical personnel.
b. Remove and/or keep back all non-essential personnel.
c. Provide assistance to rescue personnel as requested.
d. Make no comments. Refer all inquiries to the Chicago Department of Aviation.
e. Allow no pictures to be taken except on approval of CDA or designated representative.
f. Notify CM's Manager of Safety immediately. Make full investigation and file the written report within twenty-four (24) hours.

3. PROPERTY DAMAGE ACCIDENTS

a. Notify CM's Manager of Safety
b. Protect against further damage where possible
c. Where the possibility of fire, explosion or electrical injury exists, take additional measures as necessary to protect personnel.
d. Keep all spectators and non-essential employees back and/or away from the area.
e. Make no comments. Refer all inquiries to Chicago Department of Aviation.
f. Allow no onsite pictures to be taken except on approval by the Construction Manager.
g. Make full investigation and file report within twenty-four (24) hours.

4. BOMB THREAT

When a bomb threat is received for the first time, the project or office shall be evacuated immediately. Notify the City of Chicago Police Department immediately. A search of the premises will be made by the City of Chicago Police Department. If a suspicious article is found - DO NOT TOUCH IT – leave the area – notify the appropriate authorities immediately.

If no bomb is found and a second threat is made shortly after the first one, the premises should be evacuated again and searched again by the City of Chicago Police Department. If a third threat occurs under similar circumstances, which make the threat appear to be a mere continuation of the same pattern of false claims, careful evaluation of the circumstances by the City of Chicago Police Department may indicate a need for no further action.

If a threat occurs after a substantial period of time has elapsed since the previous threat, or if for any reason the threat seems to be unrelated to the earlier threats, the above procedures of evacuation, etc., shall be followed.

The evacuation will consist of all personnel on the project or in the office. A count will be made to assure all are present.

Do not allow anyone except authorized personnel to re-enter the area.

If necessary to stop or detour traffic away from the affected area, utilize the City of Chicago Police or Contractor's flagperson.

Notify any affected businesses or residents who may be endangered.

Allow no photos. Make no comments. Refer all inquiries to the Chicago Department of Aviation.

IX. INSPECTIONS

A. RESPONSIBILITIES

1. CONTRACTOR

   The Contractor has the responsibility to stop work at any time an imminent danger to persons or property exists with their own operation or with the operation of a subcontractor. The Contractor will receive no recompense for additional cost or time extension.

   The Contractor shall periodically inspect all areas under their control. The Contractor shall insure that at least a thorough, documented inspection is completed on a weekly basis (FAA funded projects shall have a documented daily inspection). Such documented inspections shall be forwarded to the CM's Manager of Safety. The CM's Manager of Safety shall forward a copy of inspection reports to the designated CDA safety representative.

2. CONTRACTOR'S SUPERVISION

   Each Contractor supervisor shall insure that ongoing observations are done in their area(s) of responsibility for the purpose of identifying and correcting hazards and deficiencies. This activity should be an ongoing responsibility of all supervisors.

3. INDIVIDUAL EMPLOYEES

   Each employee shall be held responsible for identifying hazards and deficiencies in their immediate work area.

B. HAZARDS/DEFICIENCIES

The following is a partial list of items that need to be checked during each inspection:

1. Proper storage of materials.
2. Scrap material in proper containers.
3. Overflowing trash containers.
4. Unused tools in proper place.
5. Signs appropriate and legible.
6. Walkways unobstructed.
7. Storage areas disorderly.
8. Spills not wiped up.
9. Oily rags left in the open, not in required metal containers.
10. Flammable materials in unauthorized containers.
11. Ladders – Not properly secured, broken or missing rungs, cracked side rails, etc.
12. Catwalks – No guardrails installed, lack of toeboards, obstructed, etc.
13. Scaffolding – Improperly installed or secured, in poor repair, missing components, not authorized, etc.
14. Compressed Gas Cylinders – Unsecured, improper storage, caps missing, hoses and regulators left pressurized, etc.
15. Tripping/Slipping Hazards – Temporary hoses/cord/pipes strung across walking surfaces, holes in floor/decking/grating, oil or water on floor, obstruction at the bottom of stairs/ladders/ramps, etc.
16. Protrusions – Into aisles/walkways without protective devices or warnings.

17. Chemical Containers – Proper labeling and storage, barrels equipped with vent bungs and stored out of direct sunlight, no incompatibilities stored together, precautionary signs legible and strategically located, etc.
18. Equipment does not have guards installed.
19. Safety latches are not installed where required.
20. Safety signs are not posted where required.
21. Failure to wear hard hats, safety glasses, proper footwear and hearing protection when required.
22. Working on energized/pressurized equipment without proper approval and protective equipment and clothing.
23. Handling chemicals without proper protection, i.e., no apron, face shield, gloves, boots, respirator, etc., when required.
24. Improper lifting methods.
25. Lack of fire-watch for welding, flame cutting and grinding operations.
26. Attendant improperly located during confined space entries.
27. Smoking in prohibited areas.
28. Failure to comply with tagging and lockout requirements.
29. Working at heights over six feet without fall protection/harnesses when outside a protected area (properly erected scaffolding, etc.).
30. ABC Dry Chemical type fire extinguishers not in place, inspection not up to date, safety pin not sealed, evidence of damage/discharge, etc.
31. Emergency cabinets improperly stocked or in disarray
32. Access to emergency equipment not clear (i.e., fire extinguisher/hoses, eye wash stations, emergency shower, etc.)
33. Zones not clearly marked or posted
34. Permits not posted
35. Warning signs are not posted
36. Welding machines operating when unattended and not in use
37. Leads and hoses improperly routed through doorways without protection from damage
38. Inadequate illumination for the work being performed
39. Cages not installed around light bulbs on drop cords
40. Ground Fault Circuit Interrupters not in place

In addition to the Contractor's inspections, the CM's Manager of Safety shall on a periodic basis, inspect each ongoing project. The Contractor shall correct serious violations immediately and shall have twenty-four (24) hours to correct all deficiencies and to respond in writing to the CM's Manager of Safety as to what corrective action has been taken. Unsafe areas will be barricaded to prevent exposure to employees and the public.

The Contractor shall document corrective action and forward the documentation to the CM's Manager of Safety. Should the same deficiency be noted on two consecutive inspections, a letter outlining CAS inspection process and detailing the noted deficiencies shall be sent to the Contractor's home office requesting assistance in correcting the deficiency.

Should the same deficiency be noted on a third consecutive inspection, the same type of letter mentioned in the above paragraph shall be sent to the Contractor's insurance carrier.

If corrective action is still not forthcoming, further action will be taken. This action may include withholding payments or stopping all work until a meeting with the Contractor principals and the insurance carrier can be arranged.

C. OSHA INSPECTIONS

1. WARRANTS AND RIGHT OF ENTRY

This policy is not intended to abridge the constitutional rights of the Contractors or subcontractors who have the right to request a warrant prior to the inspection of their work areas.

Each Contractor or subcontractor must advise the CM's Manager of Safety in writing if they require a warrant prior to inspection.

2. HARASSMENT

Federal Compliance Officers (CO), State of Illinois inspectors, or similar personnel are not to be harassed, intimidated, or abused. Problems that may arise during the inspection, which cannot be resolved, are to be referred to the CM's Manager of Safety.

Chicago Department of Aviation Safety will be immediately contacted if the Contractor refuses to allow entry of a Federal Compliance Officer.

Federal and State of Illinois safety agencies may impose severe penalties against person and/or companies who fail to abide with this section.

Penalties may include monetary fines and jail terms.

3. INSPECTION CLASSIFICATIONS

There are two (2) basic classes of inspections:

a. General scheduled inspection.

Companies are randomly selected by computer. Inspectors then schedule an inspection. Once entry to the site is obtained by either permission or warrant, the inspector may move freely about the site.

Should the inspectors desire to enter a restricted area which contains trade secrets or hazardous materials, they should be advised to contact their office for direction.

b. Complaint Inspection

Inspectors wishing to conduct a complaint inspection need not obtain a warrant, but must deliver to the Contractor a properly executed copy of the complaint form.

This type of inspection does not grant the inspector free movement within the site. The named Contractor has the right to determine the route to the complaint area, so long as it is not unreasonable.

The inspectors may not enlarge the inspection into other areas, nor may they concern themselves with non-serious conditions observed en route to the complaint area.

However, should an imminent condition be observed, the inspectors may involve themselves should they desire. (An "imminent danger" is one reasonable expected to result in death or permanent injury).

Disaster accidents involving death or multiple injuries come within the parameters of a compliant inspection. Fatal injuries and complaint inspections are given priority. Persons initiating complaint inspections need not be named on the complaint form and may remain anonymous.

4. RIGHTS AND PRIVILEGES

a. Employer:

The employer has the right of representation during the inspection. The representative may question the acts and comments of the inspector and may also request clarifications where the actions of the inspector appear to be contrary to the rules of inspection.

The employees have the right of representation, through their craft union, during the inspection. They may also answer questions regarding the inspection without fear of punitive actions by the employer.

b. Compliance Officer:

The Compliance Officer has the right to take photographs, samples of material atmosphere and measurements as they relate to the inspection. They may also privately interview employees. They may not, however, unduly disrupt work.

5. CITATIONS

As a result of an inspection, citations and notice of monetary penalty may be received onsite. Should a citation/penalty notice be received, the following must be done:

Immediately forward copies of the material received along with completed copies of inspection records and pictures to the CM's Manager of Safety.

Post copies of citations near the area cited. Postings must remain for three (3) working days or until corrections have been made.

Each citation provides for the removal of assessed penalty figures. This section is to be detached before citations are copied and posted.

Failure to post citation is punishable by fine.

6. WHAT TO DO WHEN OSHA INSPECTS

a. INTRODUCTION

This is to assist you in the event of an inspection of your site by an Occupational Safety and Health Administration Compliance Officer. Its purpose is to provide a guide for chronological recording of information and evidence to support an affirmative defense.

The forms should be copied in an amount to provide for field use during inspection. At the completion of the inspection, final forms should be typed and photographs attached.

It is extremely important that all information be accurate, that pictures are clear, and that measurements be accurate since the information may be introduced as evidence under oath at a formal court hearing.

b. COMPLIANCE OFFICERS

The function of the Compliance Officers (CO) is to identify, measure and photograph conditions and/or acts which they consider unsafe and in violation of the construction safety regulations.

In the pursuit of their duties they may go wherever they wish on the project. They may take any samples or measurements they feel are important. They can request copies of any literature, documents, or contracts, which relate to safety or industrial hygiene.

Compliance Officers may not violate any known safety regulation. They are responsible for providing and wearing personal safety equipment where such is needed. Failure to comply with the safety program is cause for not permitting them onsite or stopping an inspection that is already in progress. Should this occur, institute the following procedure:

- Advise the CO that they are in violation and ask that they comply with the safety program.

- Failing item above, photograph CO in unsafe condition – discontinue participation in inspection, notify OSHA Area Director and the CM's Manager of Safety.

- The CO may consult with employees regarding matters of safety and health to the extent that it is necessary for the conduct of an effective and thorough inspection. The conduct of inspection shall be such as to preclude unreasonable disruption of operations on the project.

c. CONTRACTOR REPRESENTATIVE

The Contractor's assigned project superintendent shall serve as employer's representative. They will keep the notes, take the photographs and shall accompany the inspection party for its duration.

Information given should be only information requested. The superintendent should refrain from entering into debates or discussions about alleged violations, exceptions, or regulations applicability, nor should they volunteer information not requested.

Because the CO says it does not necessarily make it so, an alleged violation does not become an affirmed violation unless the employer accepts the citation, or when contested, the judge affirms the citation.

d. PHOTOGRAPHS

Photographs may be taken of every item or action the CO inspects. Two pictures are to be taken. One from the angle and location of the CO, the second is to be an overall picture of the area surrounding the violation.

An example of this would be an exposed shaft.

Close-up, it's a violation, however, if an overall picture shows that the shaft is not readily accessible, then possibly no violation exists.

Photographs are to be taken with a camera which produces a negative, and if possible, with a date-imprint. This permits additional copies to be ordered at time of processing.

Each picture should have the following information on the back:

- Project name and number
- City and State
- Location by floor and area, i.e., 4th floor, Column J-4 Mechanical Room
- Date and time of picture
- Brief description of the picture
- Name or initials of person taking the picture and picture numbered chronologically

e. CONDUCTING THE INSPECTION

The Compliance Officers will present their identification to the Contractor and state the purpose of the visit. They will request that an opening conference be held with a representative of the Contractor they wish to inspect and the Contractor's union steward.

Absent the need for a warrant, the Compliance Officer will begin the opening conference.

The Compliance Officer will:

1. State the nature of the inspection, general compliant, target industry, other.

2. State the approximate time he will be onsite.

3. Request copies of safety program, accident reports, and inspection surveys. He may not review any contract documents other than general conditions and similar front-end documents.

4. Approve members of the inspection party. Each member has a right to representation and the compliance Officer has the right to choose the representative. Disruptive conduct by the employer/employee representatives is cause for dismissal from the inspection party.

5. Generally discuss the purpose of the OSHA Act, its sanctions, and the authority vested in them by the Act.

6. Advise that at the conclusion of the inspection, a closing conference will be held to advise of any alleged violations noted, to determine corrective dates and answer questions.

f. DURING THE INSPECTION

Allow the Compliance Officer to lead.

Do not permit unneeded employees to linger near the inspection party.

Do not harass, threaten or otherwise intimidate the Compliance Officer.

Keep a chronological record of where the Compliance Officer goes, whom he talks with and how long he talks to employees and whether he returns to a location previously inspected.

When photographs are taken, ask the nature of the suspected violation and record on the “Inspection Notes” form.

g. THE CLOSING CONFERENCE

At the completion of the inspection, the Compliance Officer will either hold a general meeting or meet with each individual Contractor. The CM’s Manager of Safety representative should attend all meetings, if held individually, for the purpose of recording each Contractor’s alleged violations.

Remainder of page left intentionally blank.

X. EMPLOYEE DISCIPLINARY PROGRAM

A. POLICY

In an effort to make individuals more responsible for their own safety, the following disciplinary program is being implemented:

1. First safety violation – a written warning

2. Second safety violation – the individual's privilege to work at the airports will be revoked for a period of three days.

3. Third safety violation – the individual's privilege to work at the airport will be permanently revoked.

Note: A serious violation may result in a higher degree of discipline being imposed up to and including permanent revocation of work privileges.

Serious violations are acts, which could result in serious bodily injury or death to themselves or to others i.e., failure to follow confined space procedures, working from heights where fall protection is required, unsafe excavations, etc.

B. PROCEDURE

All personal violations will be recorded on Safety Violation notice form and will be recorded.

A Safety Violation Notice may be initiated by any Project Manager, Resident Engineer, Contractor supervisory staff or Safety Department staff.

When a violation notice is written, copies will be given to the project Superintendent, who will have the responsibility of discussing the violation with the employee and having the employee to sign the violation form. If the employee refuses to sign the form the superintendent will write "Refused to Sign" in the space. A copy will then be given to the employee with a copy forwarded to the CM Manager of Safety.

C. APPEAL

An employee who wishes to appeal a Safety Violation notice may do so by appealing in writing to the CM Manager of Safety. The decision of the CM Manager of Safety will be final.

E X H I B I T S

Exhibit V-1	**Field Cable Locate Request**
Exhibit V-2	**O'Hare Underground Construction Notification**
Exhibit V-3	**Request for FAA Assistance**
Exhibit V-4	**Incident Report Form**
Exhibit V-5	**Hot Work Permit Sample**
Exhibit V-6	**Confined Space Permit Sample**
Exhibit V-7	**ORD Notice to Airport Users**

EXHIBIT V-1

Field Cable Locate Request

Date: _____

Primary Contractor Information

Company Name: _____

Address: _____

City: _____

State: _____ Zip Code: _____

Point of Contact: _____

Title: _____

Phone Numbers: O _____

C _____

Sub-Contractor Information

Company Name: _____

Address: _____

City: _____

State: _____ Zip Code: _____

Point of Contact: _____

Title: _____

Phone Numbers: O _____

C _____

Related Project: _____

Latitude and Longitude of requested locates. Attach separate sheet if needed.

LAT/LONG IS IN NAD83 FORMAT ONLY

Latitude: _____

Longitude: _____

Was or is there a Pre-Construction Meeting? Yes ☐ No ☐

If yes, Date: _____ Time: _____ Location: _____

Is there an Airspace Case Filed? Yes ☐ No ☐ If Yes, Case Number: _____

Additional Comments:

Completed By FAA Rep. _____ Date: _____

Contractor Rep. Signature _____

Upon completion fax this document to FAA 773-601-7702

EXHIBIT V-2

CHICAGO DEPARTMENT OF AVIATION
UNDERGROUND CONSTRUCTION NOTIFICATION

I. PROJECT INFORMATION

A. Project Name _____ Date: _____

1. Project No. _____
2. Resident Engineer _____

B. Work Location _____

C. Description of Work _____

_____

D. General Contractor _____

1. Name of Superintendent/Foreman _____ 24 Hr. Phone _____
2. Name of Superintendent/Foreman _____ 24 Hr. Phone _____

E. Subcontractor _____

1. Name of Foreman _____ 24-Hr. Phone _____
2. Name of Superintendent _____ 24 Hr. Phone _____
3. Name of Foreman _____ 24 Hr. Phone _____

F. Anticipated Dates of Work _____

G. Anticipated Hours of Work ☐ _____ Days ☐ _____ Nights

Remarks / Clarifications (as necessary): _____

_____

_____

H. Scheduled Pre-Activity Meeting

1. Pre-Activity meeting scheduled: Time: _____
   Date: _____
   Location: _____

   Optional: Utility Locate Meeting Time: _____
   Date: _____
   Location: _____

2. Has the Pre-Activity meeting notification email been sent? ☐ Yes ☐ No
   * Attach email for documentation

II. DOCUMENTATION

A. Pre-Activity Meeting Minutes

1. Meeting Date and Time: _____
2. Meeting Location: Field / Office: _____
3. Organizations in Attendance:

					Primary Representative at Meeting (SIGNATURE)
a.	Construction Manager	☐	Yes	☐ N/A	
b.	General Contractor	☐	Yes	☐ N/A	
c.	Subcontractor	☐	Yes	☐ N/A	
d.	FAA Facilities	☐	Yes	☐ N/A	
e.	CDA Operations	☐	Yes	☐ N/A	
f.	CDA Facilities	☐	Yes	☐ N/A	
g.	Other: _____	☐	Yes	☐ N/A	
h.	Other: _____	☐	Yes	☐ N/A	

4. Key Discussion Points: _____

_____

_____

_____

5. Meeting Minutes Available: ☐ Yes ☐ NO

B. FAA Cable Locate Forms

1. Have FAA cable locate forms been submitted? ☐ Yes ☐ No ☐ Copies in Binder

   Note: FAA cable locate forms must be submitted three (3) days prior to the cable locate being performed in the field (The 3-Day Notice excludes Holidays, Saturdays and Sundays).

2. Did you receive an approved copy? ☐ Yes ☐ No ☐ Copies in Binder

   * The FAA has been onsite to give the contractor location of FAA utilities.

C. FAA Assistance Forms

1. Have FAA assistance forms been submitted? ☐ Yes ☐ No ☐ Copies in Binder

   Note: FAA cable locate forms must be submitted five (5) days prior to the desired assistance being performed in the field (The 5-Day Notice excludes Holidays, Saturdays and Sundays).

2. Did you receive an approved copy? ☐ Yes ☐ No ☐ Copies in Binder

   * Not Required.

D. CDA User Form (if applicable)

1. Has the CDA User Form been submitted? ☐ Yes ☐ No ☐ Copies in Binder
2. Was the CDA User Form approved? ☐ Yes ☐ No ☐ Copies in Binder

II. DOCUMENTATION (Continued)

E. Airspace Case Study

1. Has the Airspace Case Study been approved? ☐ Yes ☐ No ☐ Copies in Binder
2. Approved Airspace Case No. _____
3. Was a post Airspace Case Study review conducted with the FAA? ☐ Yes ☐ No ☐ Copies in Binder

F. Applicable Installation Documentation

1. Shop Drawings ☐ Yes ☐ No ☐ N/A
2. Submittals ☐ Yes ☐ No ☐ N/A
3. Field Orders ☐ Yes ☐ No ☐ Copies in Binder
4. RFI's ☐ Yes ☐ No ☐ Copies in Binder
5. Work Related Drawings and Specifications ☐ Yes ☐ No ☐ Copies in Binder
6. Field Sketches ☐ Yes ☐ No ☐ Copies in Binder
7. Composite Utility Drawings ☐ Yes ☐ No ☐ Copies in Binder

III. UTILITY / FACILITY IMPACTS

A. Anticipated / Potential Impacts

1. Facilities Affected or Nearby _____

B. Additional Power Sources

1. Does the Facility currently have backup power? ☐ Yes ☐ No ☐ N/A
2. List items on backup power
   a. _____
   b. _____
   c. _____
   d. _____
   e. _____
3. Remarks (if necessary) _____

III. UTILITY / FACILITY IMPACTS (Continued)

4. Generator Power

a. Is a Generator necessary to provide temporary power to Facilities before work starts?

☐ Yes Who _____

☐ No Date / Time _____

☐ Standby Only How _____

b. What Facilities require Generator Power?

_____

_____

_____

IV. DELINEATION OF CRITICAL AREA / SAFETY AREA

A. Safety Areas

1. Have the Safety Areas (RSA/TSA) been identified?
☐ Yes ☐ No ☐ N/A
Runway (RSA) = 200' From Centerline
Runway (RSA) = in front of Existing Localizer
Taxiway (TSA) = 131' From Centerline

2. Have the Object Free Areas been (ROFA/TOFA) been identified?
☐ Yes ☐ No ☐ N/A
Runway (OFA) = 400' From Centerline
Runway (OFA) = 1,000' From RW End
Runway (OFA) = 160' From Centerline

B. Critical Areas

1. Have the navigational critical areas been identified with snow fence or silt fence to ensure adequate recognition of the area?
☐ Yes ☐ No ☐ N/A Fence to be installed prior to work

C. Review of delineation of critical / safety areas.

1. Have the governing agencies reviewed the proposed delineation plan?
☐ CDA ☐ FAA ☐ N/A All Pre-Activity Meeting

V. UTILITY LOCATES

A. Layout of Proposed or New Work

1. Has the Contractor clearly identified the line of the proposed excavation? (If YES, See Utility Drawing) ☐ Yes ☐ No

B. Utility Locate Organization

1. Identify organizations that have completed utility locates.

☐ FAA Date: _____

☐ CDA Date: _____

☐ DIGGER No. _____ Active Date: _____

☐ JULIE No. _____ Active Date: _____

☐ OTHER: (Explain) _____ Date: _____

☐ OTHER: (Explain) _____ Date: _____

V. UTILITY LOCATES (Continued)

2. Identified Utilities

Have all known Utilities around the Facility (FAA, DOA, ComEd, SBC, AGI, Other) been physically located on the ground by the FAA, and others as applicable? (Identify point of origin and point of termination for each line)

a.	Power	☐	N/A	☐	Yes	☐	No	☐ Origin	☐ Termination
b.	Control	☐	N/A	☐	Yes	☐	No	☐ Origin	☐ Termination
c.	Grounding	☐	N/A	☐	Yes	☐	No	☐ Origin	☐ Termination
d.	Comm / Data	☐	N/A	☐	Yes	☐	No	☐ Origin	☐ Termination
e.	Water	☐	N/A	☐	Yes	☐	No	☐ Origin	☐ Termination
f.	Sewer	☐	N/A	☐	Yes	☐	No	☐ Origin	☐ Termination
g.	Other	☐	N/A	☐	Yes	☐	No	☐ Origin	☐ Termination

* Origin and Terminal have been determined within the job limits.

C. Contractor's Proposed Method of Identifying Known Utilities

1. Vacuum Excavating ☐ Yes ☐ No
2. Ground Penetrating Radar ☐ Yes ☐ No
3. Hand Excavation ☐ Yes ☐ No
4. Other. Explain _____
5. Were all known utilities identified? ☐ Yes ☐ No

   If no, which known utilities were not identified and why? _____

6. ☐ Yes ☐ No

   If yes, the the space below, describe the nature of the situation and the actions taken:

D. Utility Delineation

1. Has the ten foot (10') utility channel "five feet (5') on either side of the know utilities" been marked or delineated with Snow Fence, Orange Silt Fence or PVC indicators where the new work crosses the utility?

   Requesting Variance to this Procedure ☐ Yes ☐ No

2. Runways

   Are utility locates required within the Runway Safety Area (RSA)? ☐ Yes ☐ No

   Identify the method the utility locates have been identified. ☐ Paint ☐ Flags

   ☐ Potholed / Hydroexcavated and marked using PVC and Surveyed

No Utility Locates Shall Be Performed Within the Runway Safety Area While the Runway is Open to Air Traffic. All runway safety area locates must be performed between the hours of 2200 and 0600 (10:00 pm – 6:00 am).

V. UTILITY LOCATES (Continued)

3. Taxiways

Are utility locates required within the Taxiway Safety Area (TSA)? ☐ Yes ☐ No – N/A

Identify the method the utility locates have been identified. ☐ Paint ☐ Flags

The scheduling of utility locates within a Taxi Safety Area (TSA) shall be coordinated with CDA Operations.

E. Protection and Delineation of Existing Facilities

1. Have Snow Fence, Silt Fence, Barricades or other protective devices been installed around nearby existing Facilities, i.e. Buildings, Antenna, Transformers, Markers, RVRs, LLWAS, etc. to ensure adequate recognition?

☐ Yes _____
(Facility)

☐ Yes _____
(Facility)

☐ Yes _____
(Facility)

☐ Yes _____
(Facility)

☐ Yes _____
(Facility)

F. Deviation from Approved Procedure – Request for Waiver

1. If approved procedural means of excavating have been determined to be ineffective, have you sough approval for an alternative approach to the work? ☐ Yes ☐ No

2. If yes, describe the approach that is not effective, and then describe the proposed alternative method of approach.

a. Ineffective method: _____

_____

_____

b. Proposed method: _____

_____

_____

3. Was a "Waiver" from the planned approach sought and approved? ☐ Yes ☐ No

By Whom: _____

Date / Time: _____

How _____

EXHIBIT V-2

VI. ACKNOWLEDGMENT OF NOTIFICATION

General Contractor

Signature Required _____ Date _____

Construction Manager

Signature Required _____ Date _____

Federal Aviation Administration

Signature Required _____ Date _____

Chicago Department of Aviation

Signature Required _____ Date _____

Other

Signature Required _____ Date _____

VII. AUTHORIZATION TO COMMENCE WORK

Print Name _____

Signature Required _____ Date _____

EXHIBIT V-3

Request for FAA Assistance

Date: _____

Primary Contractor Information

Company Name: _____

Address: _____

City: _____

State: _____ Zip Code: _____

Point of Contact: _____

Title: _____

Phone Numbers: O _____

C _____

Sub-Contractor Information

Company Name: _____

Address: _____

City: _____

State: _____ Zip Code: _____

Point of Contact: _____

Title: _____

Phone Numbers: O _____

C _____

Related Project: _____

Type of assistance needed. Example, site access, _____

_____

Date and time assistance is needed: _____

Was or is there a Pre-Construction Meeting? Yes ☐ No ☐

If yes, Date: _____ Time: _____ Location: _____

Is there an Airspace Case Filed? Yes ☐ No ☐ If Yes, Case Number: _____

Additional Comments:

Completed By FAA Rep. _____ Date: _____

Contractor Rep. Signature _____

Upon completion fax this document to FAA 773-601-7702

EXHIBIT V-4

Chicago Department of Aviation Capital Improvement Program Incident Report

Submit a copy of this report within 24 hours of incident to:

CARE PLUS LLC
10510 W. Zemke
Chicago, IL 60666
ATTN: Mark Leipold
Site Manager - Safety

Telephone: 773.447.4952
Email: MLeipold@careplusllc.org

Date of Incident: _____

Time of Incident: _____ a.m./p.m. **(Circle one)**

Today's Date: _____

Time: _____ a.m./p.m. **(Circle one)**

Contractor Information

General Contractor: _____ *Project Name:* _____

Project Number: _____ *Subcontractor:* _____ *(N/A if none)*

Chartis Project Code: _____

Type of Incident (Check all that apply)

- ☐ Bodily Injury/Illness
- ☐ Property Damage
- ☐ Motor Vehicle
- ☐ Aircraft
- ☐ Other _____

Action (Please check all appropriate boxes)

- ☐ OCC Notified **(773) 894-9111**
- ☐ MCC **Notified (773-838-9111)**
- ☐ Non-ORD Emergency Agency Notified _____ *(List Outside Fire, Ambulance, Police or other)*
- ☐ Taken to Clinic: _____ *(Provide Name and Address of Clinic*
- ☐ Emergency Medical Services **Provided**
- ☐ Emergency Medical Services **Not Provided**
- ☐ Emergency Medical Services **Refused**
- ☐ Other: _____

Incident Involvement (Please check all appropriate boxes)

- ☐ Contractor Employee
- ☐ Subcontractor Employee
- ☐ Passenger/Public
- ☐ Utility Damage
- ☐ Security Incident
- ☐ Wildlife Incident
- ☐ Other (Describe) _____
- ☐ Aircraft
- ☐ Fire
- ☐ HazMat Incident
- ☐ Runway Incursion
- ☐ City Vehicle
- ☐ Non-City Vehicle

Site Conditions

Weather:	☐ Clear	☐ Snow
	☐ Overcast	☐ Fog
	☐ Temp. °F	☐ Sleet
	☐ Rain	☐ Windy
Surface:	☐ Wet	☐ Ice
	☐ Snow	☐ Dry
	☐ Cracked	☐ Uneven
	☐ Pothole	☐ Mud
Light:	☐ Daylight	☐ Night
	☐ Dawn	☐ Artificial
	☐ Dusk	☐ Glare

Injured Person's Work Status

- ☐ Light Duty Restrict. (Describe) _____
- ☐ Lost Time Incident
- ☐ Full Duty - No Restrictions

Bodily Injury/Illness (Individuals/Parties who were injured)

Name of Person	Name of Person
Address of Person (Number, Street, City, State, Zip Code)	Address of Person (Number, Street, City, State, Zip Code)
Telephone	Telephone
Description of Injury/Illness _____	Description of Injury/Illness _____

Property Damage Information (Contractor is responsible for obtaining police report)	
Type of Property ☐ City Owned ☐ Non-City Owned	Describe Property Damage (Building, #, Aircraft, Airfield, Utility)
Motor Vehicle Incident Information (Contractor is responsible for obtaining police report)	
Type of Vehicle ☐ Automobile ☐ Bus ☐ Truck ☐ Other	Describe Vehicle Incident (Include Vehicle type, year, model, number, license #, location)
List police deparment(s) completing accident reports	Police Report Number ____ City State County Airport (Circle)

Witness Information (Use additional sheets for more witnesses)	
Name of Person	Name of Person
Address of Person (Number, Street, City, State, Zip Code)	Address of Person (Number, Street, City, State, Zip Code)
Telephone	Telephone

Individual Completing Report	
Name of Person	Were you an eyewitness to the incident? ☐ Yes ☐ No
Company/Your Position	Telephone
Signature	Date

Cause of Incident (Please be as thorough as possible)	
Describe Incident: (Use additional paper if needed)	Please use this area to sketch incident area. Use north arrow and dimensions
Please Check Box if Pictures Were Taken ☐	

Additional Information (Use this page to provide more detailed information not mentioned above)
Use this space to also describe injury in detail and medical disposition
Describe, in detail, the corrective actions that will be taken to prevent reoccurrence

USE THIS AREA FOR EYEWITNESS STATEMENTS - MAKE COPIES AS NEEDED

BE CERTAIN TO OBTAIN SIGNATURES AND DATES FROM ALL WHO ARE PROVIDING STATEMENTS

EXHIBIT V-5

HOT WORK PERMIT

All temporary operations involving open flames or producing heat and/or sparks require a Hot Work Permit. This includes, but is not limited to, Brazing, Cutting, Grinding, Soldering, Thawing, and Welding. This form must be prepared and signed prior to the start of any Hot Work operation for each shift that Hot Work Occurs.

INSTRUCTIONS FOR FIRE SAFETY SUPERVISOR

Project Name & # _____

Contractor: _____

DATE | Time Period

Start: Finish:

LOCATION/BUILDING & FLOOR (Be Specific)

DESCRIPTION OF WORK BEING PERFORMED

NAME OF SUPERVISOR AUTHORIZING HOT WORK

NAME OF PERSON DOING HOT WORK

NAME OF FIRE WATCH

The above location has been examined, the precautions checked on the Hot Work Checklist have been taken to prevent fire, and permission is authorized for this work.

SIGNED: _____
(Permit Authorizing Individual)

SIGNED: _____
(Person doing Hot Work)

I will execute my responsibilities as a Fire Watch in accordance with the CAS requirements to the best of my abilities.

SIGNED: _____
(Fire Watch)

FIRE WATCH SIGNOFF

Work area and all adjacent areas to which sparks and heat might have spread were inspected during the fire watch period and were found fire safe.

Signed: _____

FINAL CHECKUP (minimum 30 minutes after Hot Work)

Work area was monitored for_____hours(s) following Hot Work and found fire safe.

Signed: _____

FILL OUT EMERGENCY INFORMATION ON BACK OF Page 2.

Sample

OK	HOT WORK CHECKLIST	N/A
☐	Is there an approved User Form for the Hot Work?	☐
☐	Have the participants in this work been appropriately trained for this activity	☐
☐	Is the area ventilated?	☐
☐	Will the smoke and fumes affect operations?	☐
☐	Will an effort be made to capture and filter the fumes?	☐
☐	Will the fumes set - off a local smoke alarm?	☐
☐	Will the fumes travel to other areas? If so list precautions to be taken.	☐
☐	Hot Work Equipment in good condition (e.g., power source, welding leads, torches, ect.) Multi-purpose ABC fire extinguisher charged & ready for use?	☐
	REQUIREMENTS WITHIN 35 FEET OF WORK	
☐	Dust, Lint, Debris, Flammable Liquids and oily deposits removed; floors swept clean	☐
☐	Explosive atmosphere in area eliminated.	☐
☐	Combustible floors (e.g., wood, tile, carpeting) wet down, covered with damp sand or fire blankets.	☐
☐	Remove flammable and combustible material where possible. Otherwise protect with fire blankets, guards, or metal shields.	☐
☐	All wall and floor openings covered.	☐
☐	Walkways protected beneath hot work.	☐
	WORK ON WALLS OR CEILINGS	
☐	Combustibles moved away from other side of wall.	☐
	WORK IN CONFINED SPACES	
☐	Confined space cleaned of all combustibles (example: grease, oil, flammable vapors).	☐
☐	Containers purged of flammable liquids/vapors.	☐
☐	Follow confined space guidelines.	☐
	FIRE WATCH/HOT WORK AREA MONITORING	
☐	Fire watch will be provided during and for 30 minutes after work, including any coffee or lunch breaks	☐
☐	Fire watch may be required for opposite side of walls, above, and below floors and ceilings.	☐
☐	Fire watch is supplied with an appropriate charged extinguisher, also making use of other extinguishers located throughout work area.	☐
☐	Fire watch is trained in use of this equipment and is equipped to notify the OCC/MCC in the event of an emergency.	☐
	OTHER PRECAUTIONS TAKEN	
☐		

EXHIBIT V-5

WARNING!

HOT WORK IN PROGRESS
WATCH FOR FIRE!

IN CASE OF AN EMERGENCY:

CALL: O'Hare Command Center

AT: 773 - 894 - 9111

Sample

WARNING!

EXHIBIT V-5

WARNING!

HOT WORK IN PROGRESS
WATCH FOR FIRE!

IN CASE OF AN EMERGENCY:

CALL: MIDWAY COMMAND CENTER

AT: 773 - 838 - 9111

Sample

WARNING!

EXHIBIT V-6

Confined Space Entry Permit

Entry Date: _____ Start Time: _____ Completion Time: _____

Description of Work To Be Performed: _____

Description of Space

Confined Space ID Number: _____ Type: _____

Classification: _____

Building Name:

Location of Confined Space:

Entry Checklist

	Yes	No
Potential Hazards Identified?	☐	☐
Communication Established with Operations Ctr.?	☐	☐
Emergency Procedures Reviewed ?	☐	☐
Entrants and Attendants Trained?	☐	☐
Isolation of Energy Completed?	☐	☐
Area Secured?	☐	☐
Emergency Escape Retrieval Equipment Available?	☐	☐
Personal Protective Equipment Used?	☐	☐

Confined Space Equipment and PPE Used During Entry:

- ☐ Tripod with Mechanical Winch
- ☐ Rescue Tripod with Lifeline
- ☐ Harness
- ☐ Two-way Communications
- ☐ General / Local Exhaust Ventilation
- ☐ Gloves
- ☐ Chemical Resistant Clothing
- ☐ Hearing Protection
- ☐ Air Purifying
- ☐ Self Contained Breathing Apparatus
- ☐ Steel Toe Boots
- ☐ Hard Hats
- ☐ Safety Glasses / Goggles / Face Shield
- ☐ Other PPE or Equipment Used:

Air Monitoring Results Prior to Entry

Monitor Type: _____

Oxygen ____ % LEL ____ % CO ____ % H2S ____ %

Calibration Performed?	☐	☐
Alarm Conditions?	☐	☐

Monitoring Performed by (sign): _____ Date: _____ Time: _____

Continuous Air Monitoring Results

Time		Oxygen	%	LEL	%	CO	%	H2S	%
Time		Oxygen	%	LEL	%	CO	%	H2S	%
Time		Oxygen	%	LEL	%	CO	%	H2S	%
Time		Oxygen	%	LEL	%	CO	%	H2S	%

Authorization

We have reviewed the work authorized by this permit and the information contained here-in.
Written instructions and safety procedures have been received and are understood.
Entry cannot be approved if any squares are marked in the "NO" column. This permit
is not valid unless all appropriate items are completed. This permit is to be kept at the jod site.
Return site copy to supervisor.

Entrants Name: _____ Signature: _____ Date: _____

Attendants Name: _____ Signature: _____ Date: _____

Supervisors Name: _____ Signature: _____ Date: _____

Sample

EXHIBIT V-6

CONFINED SPACE PERMIT

This permit is to be completed prior to entry into confined space.
A separate permit needs to be completed each day and shift that work is done.

Date: _____

Specific location and space: _____

Confined Space Supervisor: _____

Confined Space Attendant: _____

ATMOSPHERIC READINGS

Time of Readings →								
(02) Oxygen Between 19.5% & 23.5%								
(COMB) Combustible Gases Less than 10%								
(CO) Carbon Monoxide Less than 35 ppm								
(H2S) Hydrogen Sulfide Less than 10 ppm								
Attendant Initials								

* Readings recorded above must be within the prescribed safe limits.

ENTRANT LOG

Entrant (Print Name)	Time In	Time Out	Time In	Time Out	Time In	Time Out	Time In	Time Out

SAMPLE

O'HARE COMMAND CENTER (OCC) EMERGENCY: 773.894.9111
O'HARE COMMAND CENTER (OCC) NON-EMERGENCY: 773.894.5000
ORD Airside Operations: 773.686.2255
ORD H & R Monitor Room 773.686.2248

CONFINED SPACE PERMIT

This permit is to be completed prior to entry into confined space.
A separate permit needs to be completed each day and shift that work is done.

Date: _____

Specific location and space: _____

Confined Space Supervisor: _____

Confined Space Attendant: _____

ATMOSPHERIC READINGS

Time of Readings →								
(02) Oxygen Between 19.5% & 23.5%								
(COMB) Combustible Gases Less than 10%								
(CO) Carbon Monoxide Less than 35 ppm								
(H2S) Hydrogen Sulfide Less than 10 ppm								
Attendant Initials								

* Readings recorded above must be within the prescribed safe limits.

ENTRANT LOG

Entrant (Print Name)	Time In	Time Out	Time In	Time Out	Time In	Time Out	Time In	Time Out

Sample

MIDWAY COMMAND CENTER (MCC) EMERGENCY: 773.838.9111
Midway Airside Operations: 773.838.0677

CONFINED SPACE CHECKLIST

EXHIBIT V-6

Attached this form to the Confined Space Permit. A new form must be completed at the beginning of each shift.

Date: _____

Phone #: _____

Form completed by: _____

Signed: _____

NOTIFICATION

OCC duty supervisor notified? - Name:	Yes: ____	No: ____	N/A:____	On site radio / telephone check with OCC?	Yes: ____	No: ____	N/A:____
Monitoring office notified of work to be completed at H & R?	Yes: ____	No: ____	N/A:____	On site radio telephone check monitoring office?	Yes: ____	No: ____	N/A:____
Predetermined emergency response location arranged with OCC if in remote area?	Yes: ____	No: ____	N/A____	Has each entrant received confined space training?	Yes: ____	No: ____	N/A:____
Confined space supervisor determined?	Yes: ____	No: ____	N/A:____	Confined space supervisor determined?	Yes: ____	No: ____	N/A:____
Confined space attendant determined?	Yes: ____	No: ____	N/A:____	Emergency location form completed?	Yes: ____	No: ____	N/A:____
Confined space entrant(s) determined?	Yes: ____	No: ____	N/A:____	Personnel who will meet rescue team determined?	Yes: ____	No: ____	N/A:____

PREPARATION

Personnel informed of potential hazards and safety talk conducted prior to beginning of work?	Yes: ____	No: ____	N/A:____	Attendant understands potential exposures signs & symptoms?	Yes: ____	No: ____	N/A:____
Entry and emergency procedures reviewed?	Yes: ____	No: ____	N/A:____	First aid equipment available?	Yes: ____	No: ____	N/A:____
MSDS / NIOSH chemical hazard sheet(s) reviewed?	Yes: ____	No: ____	N/A:____	Lockout / Tag out needed prior to work?	Yes: ____	No: ____	N/A:____
Lane closures and buffer zones are needed.	Yes: ____	No: ____	N/A:____	Permit is on site and being completed by attendant?	Yes: ____	No: ____	N/A:____
Confined space meter daily calibration checked?	Yes: ____	No: ____	N/A:____	Atmospheric monitoring conducted?	Yes: ____	No: ____	N/A:____

EQUIPMENT REQUIRED

Forced air of exhaust ventilation?	Yes: ____	No: ____	N/A:____	Specialized tools used?	Yes: ____	No: ____	N/A:____
Ground fault circuit interrupters (GFCI)?	Yes: ____	No: ____	N/A:____	Supplemental lighting used?	Yes: ____	No: ____	N/A:____
Retrieval equipment?	Yes: ____	No: ____	N/A:____	Equipment rated for explosive atmospheres?	Yes: ____	No: ____	N/A:____
Fire extinguishers?	Yes: ____	No: ____	N/A:____	Communication equipment?	Yes: ____	No: ____	N/A:____

PERSONAL PROTECTIVE EQUIPMENT REQUIRED EQUIPMENT REQUIRED

Hard hat?	Yes: ____	No: ____	N/A:____	Protective clothing?	Yes: ____	No: ____	N/A:____
Eye / Face protection	Yes: ____	No: ____	N/A:____	Hearing protection?	Yes: ____	No: ____	N/A:____
Gloves - Type:	Yes: ____	No: ____	N/A:____	Retrieval harness / tripod?	Yes: ____	No: ____	N/A:____
Safety boots?	Yes: ____	No: ____	N/A:____	Respirator type:	Yes: ____	No: ____	N/A:____

IN CASE OF AN EMERGENCY

DIAL

O'Hare Command Center
At:

Sample

773.894.9111

Sample

This operation is located at:

Make sure to describe incident:
What is involved, fire, injury, utilities.
Describe injuries and identify if injured party is in a confined space or trench.
Do Not Hang Up Until Informed by Emergency Dispatcher

EXHIBIT V-6

IN CASE OF AN EMERGENCY

DIAL

Midway Command Center
At:

Sample

773.838.9111

Sample

This operation is located at:

Make sure to describe incident:
What is involved, fire, injury, utilities.
Describe injuries and identify if injured party is in a confined space or trench.
Do Not Hang Up Until Informed by Emergency Dispatcher

EXHIBIT V-6

Emergency "You Are Here"

Sample

773.894.9111

Sample

Staging Area/Terminal Location: _____

Be sure to send someone to the Staging Area/Terminal Location to meet the emergency response team.

Grid Location: _____

- **Make sure to describe incident.**
- **What is involved e.g. fire, injury, utilities.**
- **Describe injuries and identify if injured party is in a confined space or trench.**

EXHIBIT V-6

Form # 3

EXHIBIT V-7

DEPARTMENT OF AVIATION

CHICAGO DEPARTMENT OF AVIATION

Ginger S. Evans
Commissioner

ORD___/MDW___ (check one)
Notice to Airport Users **Log No.** _____

CDA Project No. *(or, Requestor)* **Date**

Project Title & Location

Contractor Phone

Originator of User Form 24 Hr. Phone

Print Name / Signature

Has a Pre-Construction Meeting been held? ☐ Yes ☐ No

Have all permits been procured? ☐ Yes ☐ No **Must submit copies to CDA.**

Is work being done by ORD badged personnel? ☐ Yes ☐ No If not, who is escorting? _____

Effective Dates Start: _____ Completion: _____

Hours Affected From: _____ Hrs. To: _____ Hrs. or _____ Hrs/Day

Description of Change / Disruption / Termination (Include sketch for clarification)

Affected Users (Signatures required) Signatures: Building Engineer _____

Airlines / Tenant Rep. _____

☐ **Electrical Work:** Electrical permits are required and as-builts must be submitted to CDA for Single Line Diagrams.

☐ **System Shutdown:** E-Mail all affected parties with schedule of power or water shutdowns, i.e. CDA, tenants…)

☐ **Hot Work Permit:** Inform Crash & Fire Rescue, attach copy, and post original at jobsite.

☐ **Underground Work:** Have the following parties been contacted?

DIGGER (Utilities) ☐ Yes ☐ No Provide DIGGER Case No. _____

FAA ☐ Yes ☐ No FAA Case No. (7460 Form) _____

ASIG (Fuel Commissioner) ☐ Yes ☐ No

		Reviewed	Rejected	Signature	Comments
Landside Operations	894-2085				
Airside Operations	626-2255				
General Supt. Of Utility Systems	686-2320				
Facilities Maint. & Construction	686-7271				
O'Hare Communication Center	686-5000				
CDA Construction Safety	686-2397				
CDA Security Office	686-2397				
C.O.E. – H&R	686-7310				
CDA Foreman of Related Work	686-2248				
CDA Telecommunications	686-2310				
CDA Design & Constr. Engineer	894-5497				

Project of Construction Managers must review and verify all affected parties are notified and sign below.

_____ 24 Hr. Phone: _____

Resident Engineer of Construction Manager

_____ _____

Project Manager (CDA or Consultant) 24 Hr. Phone:

POST SIGNED ORIGINAL FORM AT JOBSITE