Model Employee Safety Manual

for

_____

Fleury Risk Management
Group Manager

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Seventh Edition, March 2019

NYS Public Entities Safety Group 497 Executive Committee

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Model Employee Safety Manual

This Model Employee Safety Manual has been prepared to assist members of New York State Public Entities Safety Group 497 with their efforts to minimize the human and financial costs of Workers' Compensation injuries.

An Employee Safety Manual can enhance workplace safety and risk reduction efforts by providing a structure for the municipal entity to evaluate and document its procedures and expectations, and communicating their commitment to safety in the workplace.

This manual can be used in a number of ways:

- As the basis for a customized Employee Safety Manual which reflects your policies and procedures. An electronic copy of this manual is available through Fleury Risk Management to make the development of your manual easier.
- To educate employees on the importance of safe performance, their responsibilities for their own safety and the safety of their co-workers.
- As a source of safety training topics in department meetings.

Governing Body Responsibilities

The governing body has a responsibility to its employees to provide a safe working environment that is supported through ongoing commitment and attention to the control of risks. This is accomplished through deliberate activities of managers, employees and the governing body itself.

The governing board has a responsibility to its taxpayers to reduce the potential for the costs of employee injuries. Whenever an employee is injured on the job, there are costs to the employee in terms of pain and suffering, and loss of earning power. There are also significant costs to the organization and its taxpayers in terms of interruption of services, replacement costs, medical and indemnity costs, and increased insurance premiums

A policy statement on safety management establishes the goals to be achieved, and provides broad direction to the municipal management. The policy also establishes the governing body support and commitment for the health and safety of the employees. This commitment is then supported through annual budget appropriations for safety efforts, a safety committee, employee training, supervisory oversight, accident investigation, employee accountability and ongoing evaluations to reduce the potential

for preventable injuries.

Procedures and guidelines in the program address specifics for various health and safety program elements. Responsibilities, tasks and guidance are provided to guide managers, supervisors and employees with implementing the safety and health program.

The following example of a policy statement and program are offered as a starting point, to be adapted to your organization. The Manual contains a number of policy statements; these are advisory only. You should develop policies that reflect your goals and conditions.

Fleury Risk Management: The Company

Fleury Risk Management is an that delivers specialized insurance and risk management services to their customers. The company provides expertise in underwriting, program management, loss control, claims and policy handling for a rapidly growing clientele.

Fleury Risk Management is the designated Group Manager/Program Administrator for the following insurance and risk management programs:

New York State Public Entities Safety Group 497
(Workers' Compensation insurance for Public Entities including; Municipalities, Fire Districts, Libraries and other miscellaneous Public Authorities.)

New York State School Safety Group 491
(Workers' Compensation insurance for public, private, charter, and special education schools, pre K-12)

The company utilizes Workers' Compensation insurance products from the New York State Insurance Fund (NYSIF). In addition, by bringing world-class expertise and solutions to the most complicated insurance, reinsurance and risk management problems, Fleury Risk Management has developed strong relationships with other large insurance carriers, brokerages and agencies.

New York State Public Entities Safety Group 497

Background

Safety Group 497 was originally formed on July 1, 1981 by a group of municipal officials to obtain reductions in the human and financial costs of worker injuries. A Safety Group was formed within the State Insurance Fund and a Group Manager was appointed. The Safety Group fosters a partnership, the partners being the State Insurance Fund, the Group 497 Executive Committee, the Group Manager and the insured municipalities, volunteer fire districts and other public entities.

The State Insurance Fund Provides

- Cost effective, fully funded Workers' Compensation insurance
- Claims Administration
- Representation before the Workers' Compensation Board
- Loss Control Site visits and consultations
- Workshops on claims administration and loss prevention
- Participation in Safety Committee activities
- Fraud investigation

The Group 497 Executive Committee

- Is comprised of elected representatives from the membership at large.
- Meets several times yearly.
- Retains the Group Manager.
- Formulates and conducts a sound safety program to:

- Prevent occupational and other accidents, diseases and losses.
- Provide for improved medical care of employees.
- Reduce the cost of insurance to members.
- Represent Group 497 before appropriate bodies and agencies.
- Disseminate safety information to others.

- Evaluates the Group accounting and, when appropriate, recommends an annual dividend.

The Group Manager

- Provides underwriting services for new and renewal business.
- Reviews for accuracy all renewals issued by the State Insurance Fund
- Administers billing process.
- Markets the program to New York State Municipalities, Volunteer Fire Districts and other Public Entities/Authorities.
- Acts as a problem solver and advocate for members:
- Resolves billing inquiries and claims issues; provides loss runs; processes requests for Certificates of Insurance and endorsements.
- Administers State Insurance Fund Safety Group Rules and Regulations.
    1. Provides loss prevention activities and publications.
    2. Coordinates meetings of the Representative Committees and implements decisions of the committees.
    3. Maintains data base and provides annual injury analysis as part of the Annual Report to insured's.
    4. Reviews State Insurance Fund audits for accuracy.

Safety Group Dividends

One of the benefits of the NYS Public Entities Safety Group 497 program is the potential of end of year dividend payments to members. The dividend is determined annually by the premiums the Group collects versus claim payments, claim reserves and other Group expenses. If Group members have a unified focus on safety in order to limit workplace accidents and control claim cost, one of the benefits would be stronger accounting result and higher potential dividend payments to members. Safety Group 497 has paid dividends to its members for 33 consecutive years.

Model Workplace Safety and Health Policy

Safety is critical to our ability to provide municipal services to the community. _____ *(Municipal Entity Name)* is committed to maintaining a safe and healthful workplace, and to protecting the public against potential hazards caused by our operations. It is up to each of us to ensure that safety is a routine part of our daily work.

Whereas the _____ *(Municipal Entity Name)* acknowledges that it has the responsibility to provide a safe work environment for its employees/members, and such an environment enhances the quality of life of the employee/member as well as the quality of services provided to our citizens.

Now, therefore, be it resolved that the _____ (*Name of the Board or Governing Body)* of the _____ *(Municipal Entity Name)* as follows:

It is the policy of the _____ *(Municipal Entity Name)* to make workplace safety and health a priority in all operations. It is the responsibility of the _____ *(Name of Board of Supervisors/Other Governing Body)* to establish policies and procedures and the responsibilities of the _____ *(Departmental Supervisors)* to carry out the safety and health policies and procedures that support safe working conditions. Such policies and procedures will:

- Establish safety standards for facilities, machinery, equipment, tools and work practices that are based on applicable New York PESH, OSHA and generally recognized safe work practices.
- Identify staff members who will be responsible for the administration of the policies and procedures.
- Establish one or more safety committees, which will be responsible for evaluating reported unsafe conditions, investigating accidents and making recommendations to reduce the potential for accidents and illnesses to the _____ *(Board of Supervisors and/or Departmental Supervisors)*. Provide staff time, and other necessary resources for the training of staff and administration of the policies and procedures.
- Provide a program of periodic safety inspections to help identify unsafe conditions and/or operations.
- Provide for investigation of all “accidents” to determine the root cause and provide recommended actions to reduce the potential for similar incidents.
- Provide periodic reports to the governing body on activities and results of the

safety management program.

- Provide the governing body with a recommended annual budget supporting the workplace safety and health program.

Further, it is resolved that:

Employees are expected to follow established safety rules, procedures and programs to support a safe and healthy workplace.

Adopted the _____ day of _____ at _____.

Duties and Responsibilities

Board of Supervisors (or Other Governing Body)

The Board of Supervisors will:

1. Provide direction, motivation, and accountability to support an active safety and health program.
2. Establish a budget to fund the safety and health program.
3. Establish annual safety goals and objectives.
4. As part of performance evaluations, hold departmental management accountable for their departmental performance related to specific safety performance goals.
5. Review safety progress reports from the safety committee for the purpose of evaluating actions implemented to reduce the potential for health and safety risks.

Departmental Managers and Supervisors

The Department Supervisors are each responsible for:

- Development, organization, coordination and implementation of safety and health programs.
- Scheduling and providing employee safety and health training and education.
- Conducting facility and work-site self-inspections for the purpose of hazard reduction and/or elimination.
- Investigating accidents and illnesses, reporting and providing thorough documentation.
- Advising employees of unsafe conditions, addressing those conditions and providing recommendations for addressing the identified risks.

- Enforce safety and health standards and requirements. Act to eliminate potential hazards within the activities under their jurisdiction and set the example of good safety practice.
- Report injuries promptly and initiate requests for medical assistance as necessary.
- Provide employees with safety instructions regarding their duties prior to the employees' starting work tasks.
- Provide safety equipment and protective devices for each job based on knowledge of applicable hazards.
- Conduct safety briefings and encourage the use of employee safety suggestions.

Employees

Each employee is responsible for his or her own safety as an integral job requirement.

Each employee will:

1. Understand and follow the safety and health policies and procedures outlined in the Safety Manual.
2. Use the safety equipment provided for use in performing daily work assignments.
3. Wear the prescribed uniform, safety shoes and other personal protective equipment provided.
4. Only operate equipment for which training has been received.
5. Warn co-workers of unsafe conditions or practices they are engaged in which could lead to, or cause an accident.
6. Maintain tools and equipment in usable condition. Report defective equipment immediately to a supervisor.
7. Report dangerous or unsafe conditions that exist in the workplace as well as throughout _____ *(Town or Workplace)*. This would include defective sidewalks, broken curbs, hanging tree limbs, loose handrails, open manholes, sunken basins and sewers, missing or damaged traffic signs or signals.
8. Promptly report all injuries or accidents regardless of severity.
9. Protect the public from unsafe conditions resulting from work being performed.
10. Participate in safety training.
11. Set a good example for others to follow.

Contractors

_____ *(Municipal Entity Name)* expects that Contractors working within our Town and facilities will have established their own safety and health program. Each

contractor is responsible for the safety of his/her employees on our site.

Each contractor is expected to:

- Comply with the applicable New York PESH, OSHA, DOT and other regulations.
- Supply _____ *(Municipal Entity Name)* with a copy of your company safety program and safety data sheets (SDSs) for materials used on municipal projects.
- Report all accidents, injuries and fatalities that have occurred on municipal property immediately to the Board of Supervisors and/or Governing body.
- Supply and assure the use of the proper tools and equipment for their employees to perform the job safely. This includes the proper personal protective equipment and safety equipment.
- Provide employees who are trained in the relevant safety and health policies and procedures.
- Report all unsafe conditions.

Safety and Health Regulations

New York PESH has adopted all OSHA standards applicable to public sector employment with the exception of the following:

- Recordkeeping Rule – 29 CFR 1904.

In addition, the Commissioner has the authority to develop alternative and/or state-initiated standards to protect the safety and health of public employees in New York in consultation with the Hazard Abatement Board.

Other standards that New York State has that relate to municipalities include:

- Workplace Violence Prevention – 12 NYCRR 800.16.
- Safety Ropes and System Components for Firefighters (in cities with less than one million residents) – NYCRR 800.17.

Communication

To support the safety and health of the _____ *(Municipal Entity Name)* employees all individuals are encouraged to communicate hazards, offer safety suggestions, and pose safety related questions.

In addition to the communication responsibilities outlined under the Duties and Responsibilities, the following individuals and departments are involved in the ongoing support of the safety and health program:

Human Resources _____ *(insert name of department and/or individuals with the phone numbers)* is involved in:

- Safety and health recordkeeping.
- Reviewing injury and illness trends over time so that patterns with common causes can be identified and addressed.
- Scheduling and tracking employee participation in safety and health training.
- Communicating accident and illness reports to the NYS Safety Group.
- Participating on the safety committee.

Supervisors _____ *(insert the names of the various departments and contact information)* are involved in:

1. Explaining safety and health rules and procedures to the employees working within the department.
2. Recognizing potential hazards in their department.
3. Maintain safe working conditions in the work area.
4. Reinforcing safety and health rules and procedures based on observations in the workplace.
5. Investigating accidents and illnesses that occur within the department.
6. Monitoring their department's safety and health performance.
7. Provide a reliable system for employees to notify management of conditions that appear hazardous or not in compliance with the safety and health program without fear of reprisal. Provide a mechanism to provide timely and appropriate responses to employee health and safety concerns.
8. Participating on the safety committee.

Health and Safety Representative _____ *(Individual and/or position of someone in the union or bargaining unit)* is involved in:

- Participation on the safety committee.
- Supporting health and safety policies with the employees.

Employees are involved in:

- Participation on the safety committee as a representative of their work group.
- Learning, following and providing input related to safety and health rules and procedures.

Hazard Assessment

Ongoing, periodic safety inspections are conducted in-house so that new or previously missed hazards and system failures can be identified.

These hazard assessments are conducted as follows:

- By members of the Safety Committee on a _____ *(insert the frequency of the hazard assessments here)* basis.
- By Department Managers or Supervisors as follows:

- Prior to beginning a construction job.
- On a _____ *(Insert the frequency here)* basis within the department.
- Whenever unsafe or non-routine conditions are identified.

All observations are recorded, and a copy is sent to the Safety Committee including any recommendations to reduce the workplace hazards.

Accident Investigation

All accidents and illnesses are investigated to identify the root cause(s) and to determine what changes can be made to reduce the potential for a similar situation to reoccur. The form used to guide and document the accident investigation is in Appendix A.

Accident investigations are to be conducted as soon after the incident as possible after all immediate safety and health situations have been resolved at the accident scene.

The Supervisor of the employee will lead the investigation and work cooperatively with others who were onsite and have observations to contribute to the fact finding. Upon completion of the incident investigation form is provided to _____ *(insert here the specific departments such as Human Resources and the Safety Committee)*. The ultimate goal of the accident investigation is to identify the conditions responsible for the incident and to develop the recommendations that may result from the incident investigation.

Hazard Correction

Hazards identified in the workplace are to be identified and addressed as soon as possible. In some instances the hazard can be eliminated immediately by the employees and management onsite.

The Incident Investigation form is used as a tool by the Safety Committee to follow-up on the implementation of recommendations that were made to address the conditions responsible for the accident. Follow-up is to be done prior to each monthly Safety Committee meeting to enable a full discussion of the progress being made to address the conditions.

The Safety Committee at the monthly meetings is also responsible for following up on the status of any safety related recommendations that were submitted by employees or identified during the hazard assessments.

Safety and Health Training

There are a number of situations where health and safety training is appropriate. The common scenarios that trigger training include:

- NYPESH mandated training such as hazard communication, bloodborne pathogens and workplace violence.
- Job specific hazards that warrant training prior to performing the task.
- Ongoing training to enhance employee awareness of a wide range of workplace hazards.
- Re-training following work related observations and/or accident investigations that result in changes to equipment, materials and procedures.

Training can occur in various forms including:

  - Classroom review of rules, policies and procedures supported by PowerPoint, handouts and/or videos.
  - Hands-on training with PPE, tools and equipment.
  - Brief “tool box” reviews of a specific topic to reinforce safety and health rules.
  - Online courses that may include review modules and multiple choice tests.

All employees who receive safety and health training will have access to knowledgeable management staff to facilitate discussions and answer questions.

Note: *Fleury Risk Managemetn has dozens of handouts and provides access to online safety videos to address a wide range of safety topics and support the safety and health training.*

Recordkeeping

_____ *(Name of the responsible department such as Human Resources)* will maintain all records of safety and health training. Each training record will contain the following:

- ✓ Date of training
- ✓ Topic(s) covered
- ✓ Name of the trainer
- ✓ Signature of each employee attending
- ✓ Test or quizzes if any

Following each training the _____ *(Insert Department Manager/Supervisor here as appropriate)* will prepare, collect and forward the records to _____ *(Insert the same name as above)*.

Alphabetical Listing of Subjects

The following is an alphabetical listing of subjects that may be applicable to your public entity. Those that apply should be included in your program.

Accident Response & Investigation

All accidents and illnesses are investigated to identify the root cause(s) and to determine what changes can be made to reduce the potential for a similar situation to reoccur. The form used to guide and document the investigation is in Appendix A.

When an employee is injured on the job, the _____ *(Name of Responsible Individual or Department)* will make every effort to facilitate prompt medical care, to arrange transport to a medical facility if necessary, and to assist you in your treatment plan so that you may return to work as quickly as possible. We will process the necessary paper work, stay in touch with your medical service providers, and if appropriate, arrange for short-term limited duty to ease your transition back into full-time work. You and your supervisor will be required to complete an Incident Report form, and your supervisor will conduct an accident investigation and file a report on that investigation. The purpose of the investigation is to determine why and how the accident happened, and to take steps to reduce the potential for a reoccurrence of that type of accident.

Injury Response: Procedures at the Time of the Incident

In the event of an accident or injury to an employee, injury to a citizen by employer operations, or damage to property related to our operations, the _____ *(Responsible individual or Department Name)* is to be notified by the supervisor or department head immediately.

Employees involved in the incident and/or in the follow-up are expected to remain calm and cooperative with authorities, to make the necessary requests for emergency assistance and to collect vital information so that effective accident investigation can take place.

Emergency assistance is obtained by calling 911 or _____.

Accident Investigation Involving Vehicles

In the event an operator of a _____ *(Municipal Entity Name)* vehicle

is involved in an accident, regardless of the severity, the Police Department will be called to the scene and required to prepare a report. The operator of the vehicle involved in the accident should provide all the necessary identification and insurance information to the other party involved.

If a vehicle is disabled as the result of an accident, or if a vehicle breaks down and becomes inoperable, the responsible department head will be notified. Should the vehicle need to be towed back, the police department should be notified and requested in turn to contact _____ *(Name of Towing Contractor)* to retrieve the vehicle.

Asbestos

The _____ *(Name of Municipal entity)* has evaluated the buildings and facilities for the presence of asbestos containing materials (ACM). The asbestos surveys have determined that (*choose from the options below)*:

- None of the buildings and facilities owned by the municipality contains any asbestos containing materials.
- All buildings and facilities have had the asbestos containing materials removed and thus there is not any known ACM remaining on municipal property.
- Some of the buildings and facilities contain ACM and these areas are labeled, maintained and monitored to reduce the potential for the uncontrolled release of ACM fibers. A copy of the ACM survey identifying the location, type and conditions of the ACM, and the long term operations and maintenance program is available at _____. *(Program Location)* This program includes the following:

1. Identifying all the ACM in each building and the facilities.
2. Assessing the condition and exposure hazards of all ACM.
3. Assuring that all ACM is maintained in good condition.
4. Developing a long term Operations and Maintenance Program.
5. Performing a thorough building inspection every three years.
6. Conducting a surveillance of all ACM every six months.
7. Assuring that all members of the staff who work in a building or around facilities that contain ACM receive awareness training in accordance with 40 CFR 763.92. Training includes information such as, asbestos and its uses and forms, health effects associated with exposure, and the locations of ACM identified in a building.

Responsibility for development and ongoing implementation of the Asbestos Management Program rests with _____ *(Insert Name of Responsible Individual or Department)*.

The New York Department of Labor regulates asbestos abatement activities in the State through its Asbestos Control Bureau; all contractors must be licensed and all asbestos handlers certified by the Department's License and Certificate Unit. Projects must be conducted in accordance with safety standards promulgated by the Commissioner of Labor to avoid potential public health hazards that can result from the improper handling of asbestos or asbestos containing material, a potential carcinogen. Refer to Appendix B entitled "Asbestos Notification NY DOL" for additional information, and online through the NY DOL there is a reference document entitled "Worker Protection Asbestos System User Guide".

Bloodborne Pathogens: Exposure Control Plan

Employees who can potentially be exposed to bloodborne pathogens by the nature of their job include (*choose from the list below and add others as applicable*):

- Police
- Emergency Responders
- Ambulance Crew
- Fire Fighters
- First Aid Team
- Refuse Collectors
- Custodial Staff
- Camp Counselors
- Nurses and Medical personnel
- Sewerage Treatment Operators and Maintenance

These employees will be provided with safety equipment and training to reduce the potential exposure to blood and other body fluids, and are offered the Hepatitis B Vaccine Series in an attempt to lessen the risk of infection should accidental exposure occur.

Medical waste disposal will be managed to reduce the potential for biological exposures. Training, exposure, and waste disposal records will be maintained as required by law.

The _____ *(Municipal Entity Name)* is committed to providing a safe and healthful work environment for our entire staff. The exposure control plan (ECP) is provided to minimize occupational exposure to bloodborne pathogens in accordance with OSHA standard 29 CFR 1910.1030, "Occupational Exposure to Bloodborne Pathogens."

The ECP assists our organization in implementing the standard with the goal of protecting our employees. This ECP includes:

- Determination of employee exposure.
- Implementation of various methods of exposure control, including:
  - Universal precautions
  - Engineering and work practice controls
  - Personal protective equipment
  - Housekeeping
  - ✓ Hepatitis B vaccination.
  - ✓ Post-exposure evaluation and follow-up.
  - ✓ Communication of hazards to employees and training.
  - ✓ Recordkeeping.
  - ✓ Procedures for evaluating circumstances surrounding exposure incidents.

Implementation methods for these elements of the standard are described in the ECP in Appendix C.

Note: *A model Exposure Control Plan is included in Appendix C. This should be customized to meet the exposures and management systems that exist in your municipality. Additionally, a summary of the program elements is also included in the Fleury Risk Management Safety Spotlight entitled "Bloodborne Pathogens".*

Responsibility for the Exposure Control Program rests with _____ *(Responsible Individual or Department)*.

Chains, Cables, Ropes and Hooks

Follow the manufacturer's instructions for use and inspection of ropes, slings and chains including but not limited to the following:

- The equipment is to be visually inspected daily, and monthly a full, written, dated, signed report is to be completed and retained by _____ *(Responsible Individual or Department)*.
- Hoist ropes are to be free from kinks or twists and are not to be wrapped around the load.
- All U-bolt rope clips on hoist ropes are to be installed so the U-bolt is in contact with the dead end (short or non-load carrying end) of the rope.
- Clips are to be installed in accordance with the manufacturer's recommendation.
- All nuts on newly installed clips are to be re-tightened after 1 hour of use.

- Rigging equipment is not to be loaded in excess of its recommended safe working load.
- The use of open hooks is prohibited in rigging to lift any load where there is danger of relieving the tension on the hook due to the load or hook catching or fouling.
- Slings, wire rope, chains, shackles, hooks, synthetic webbing, and fiber rope are to be inspected by a competent person at the time of installation and at regularly scheduled intervals thereafter. Items will be taken out of service promptly when defects are detected.

Color Coding of Physical Hazards

The following colors are used to denote physical hazards:

Red is used for:

- Fire protection equipment and apparatus
- Safety cans or other portable containers of flammable liquids
- Red lights at temporary obstructions and barricades
- Danger signage
- Emergency stop bars on hazardous machinery
- Stop buttons on electrical switches

Yellow designates caution for physical hazards such as:

1. Tripping
2. Falling
3. Striking against or
4. Being caught in between

Color Coding of Accident Prevention Signage

There are standards for the design of accident prevention signage. The municipality does not create their own signs. All signs will be purchased from vendors who provide signs that meet the standards.

Safety signs are typically used in the following situations:

- **"DANGER"** - Red, or predominantly red, with lettering or symbols in a contrasting color.
- **"CAUTION"** - Yellow, or predominantly yellow, with lettering or symbols in a

contrasting color.

- **"WARNING"** - Orange, or predominantly orange, with lettering or symbols in a contrasting color.
- **"BIOLOGICAL HAZARD"** - Fluorescent orange or orange-red, or predominantly so, with lettering or symbols in a contrasting color.
- **"SAFETY INSTRUCTIONS"** – Background is white, and the panel, green with white letters.

Compressed Gas Cylinders

Compressed gas cylinders are used in various departments to perform work related tasks; some examples include welding (oxygen-acetylene), inerting atmospheres in welding (nitrogen), and medical oxygen for patient care.

Safety rules include:

- ✓ Compressed cylinders are to be kept away from heat sources.
- ✓ Cylinders and are to stored so they are protected from physical damage from being knocked over, or hit by passing or falling objects.
- ✓ Cylinders are to be stored in a secured upright position.
- ✓ Cylinders are to be stored at least 20 feet away from highly combustible materials.
- ✓ Cylinders designed to accept valve protection caps are to have the caps in place when the cylinder is not connected for use.
- ✓ Cylinder storage is to be clearly marked, in a well-ventilated, dry area.
- ✓ Oxygen cylinders are to be stored at least 20 feet from fuel gas cylinders or separated by a non-combustible barrier at least 5 feet high with a fire resistance rating of ½ hour.
- ✓ Each type of gas has special properties, handling and storage considerations that should be followed based on the suppliers guidelines.

Confined Space Entry (Permit and Non-Permit Required)

_____ *(Municipal Entity Name/Department Name)* employees may work in permit-required confined spaces. These spaces include:

(Use the "Classifying Confined Spaces" chart in Appendix D as a guide, insert below the types of spaces that employees may encounter based on observations of the site specific work areas. For example, wet wells, sewer manholes, valve pits).

- ✓

✓

The employees could be exposed to the following potential hazards:

- Engulfment
- Presence of toxic gases
- Presence of explosive/flammable gases
- Oxygen deficiency
- Electrical shock
- Mechanical hazards
- Moving parts
- Heat/cold
- Entrapment
- Other

These hazards are significant and can result in major safety and health exposures including the potential for a fatality. It is mandatory that any employee whose job responsibilities involve working in and around confined spaces understand and follow the _____ *(Municipal Entity and/or Department Name)* written confined space entry program. The written program is maintained by and available through _____ *(Insert knowledgeable and responsible person name)*.

The program includes:

- Identifying the location and hazards for all permit and non-permit required spaces throughout the _____ (Municipality Name).
- Placarding the spaces with warning signage.
- Informing and training employees working in and around the confined spaces in:

  ✓ Existence and location of the spaces
  ✓ Hazards and associated dangers of the space
  ✓ Control of atmospheric, physical and engulfment hazards
  ✓ Use and completion of confined space entry permits
  ✓ Testing and surveillance of the spaces
  ✓ Ventilation
  ✓ Lockout
  ✓ Defined entry procedures
  ✓ Rescue procedures
  ✓ Communication
  ✓ Program enforcement and re-evaluation

Note: *A sample confined space written program and permit is included in Appendix D.*

Driving Rules and Regulations

Note: *Fire Department Emergency Vehicle Response Guidelines are provided in Appendix E.*

All drivers of _____ *(Municipal Entity Name)* vehicles, and those using their personal vehicles for municipal business, will comply with all applicable laws of New York State as well as any additional regulations of the_____ *(Municipal Entity Name)*.

Vehicle Safety Rules

- Wear seat belts at all times. There is to be only one rider per seat belt.
- Avoid distracted driving including:
- No texting while driving
- No cell phone use while driving – pull over to a safe location to make a call.
- No eating, drinking or smoking while driving.
- No reading or writing while driving.
- No personal care while driving.
- A person other than the driver will make inspections of streets, trees, signs, etc.
  - ✓ Follow all speed limits and traffic control signage.
  - ✓ Inspect your vehicle before use each day. Report any vehicle deficiencies immediately. Drivers are to verify that the windows, headlights, taillights and windshield wipers are clean and operational at all times.
  - ✓ Backing up vehicles without a clear view of the area behind the vehicle will be done only with the assistance of a guide. If a second person is in the vehicle, they will get out and guide the driver as the vehicle is backing using the appropriate hand signal and voice signal. If the driver is alone, he/she will get out of the vehicle and inspect the area behind before backing.
  - ✓ Remove the keys from the vehicle when you exit the vehicle.
  - ✓ Lock all vehicles when they are unattended.
  - ✓ Report all accidents immediately to your Supervisor.
  - ✓ _____ *(Municipal Entity Name)* vehicles are not to park in “No Parking” or “Handicapped” zones except in emergency situations or in required performance of official duties. At those times a vehicle is parked in a “No Parking” or “Handicapped” zone, emergency blinkers will be turned on.
  - ✓ Tailgates will be up and locked when vehicles so equipped are in motion. If a vehicle’s function requires that the tailgate remain in the open position, red

flags will be attached to the outward corners of the gate.

- ✓ Riding on the sides, toolboxes, tailgates or roof of any truck is prohibited. Standing in the back of any truck is prohibited.
- ✓ Riding on running boards of trucks is strictly prohibited.
- ✓ During periods of limited visibility or any time windshield wipers are in use, vehicle headlights will be turned on.
- ✓ Consumption of alcoholic beverages or narcotics immediately prior to, and/or during operation of a vehicle is strictly prohibited.
- ✓ Trailers are to be fastened securely to hitches. Safety pins in pintel locks will be used. Safety chains will be crossed under the hitch and securely fastened before moving the vehicle.
- ✓ All items to be transported either in a truck or trailer, which may move around during transport, will be secured.
- ✓ All drivers will receive periodic review of their in-vehicle driving ability. Also, periodic training exercises will be run in special driving skills.
- ✓ Driver Licenses:

- Drivers will carry their driver's license at all times when operating motor vehicles.
- Each employee who operates a vehicle is required to report any suspension or revocation of his/her license to his/her supervisor immediately. Failure of an employee to report a change in license status will result in disciplinary action.
- Suspension or loss of driving privileges will result in drivers being temporarily re-classified or dismissed.

Electric Power Generation, Transmission and Distribution

Working with and in close proximity to electrical generation, transmission and distribution systems is very hazardous. Only employees who have been specifically trained are authorized to perform this type of work. In emergencies involving damage to electrical systems the emergency responders and municipal employees are to work in conjunction with the local electrical utility to verify that electrical systems have been de-energized before work begins.

OSHA has detailed requirements for fall protection, minimum approach distances, arc-flash protection, electrical protective equipment, and other hazards and for host employers and contract employers to exchange safety-related information. The OSHA publication "Electric Power Generation, Transmission, and Distribution Work and Electrical Protective Equipment Small Entity Compliance Guide" is one reference that is used as it describes the steps employers must take to protect workers from those hazards.

Electrical Wiring Design, Protection, and Equipment for General Use

All _____ *(Municipal Entity Name)* facilities are built to meet the current requirements of the National Electrical Code and local code requirements that exist at the time of construction.

Similarly, facility renovations are also specified to meet these same codes. As our building and facilities are used there is the potential for the electrical systems to age, deteriorate and become damaged. Ongoing observations and inspections can assist in identifying electrical conditions that present a safety hazard. Some of the more obvious situations that can be observed include the following:

- ✓ Flexible electrical cords are not to be used as a substitute for fixed wiring.
- ✓ Flexible electrical cords are to be protected from accidental damage.
- ✓ Flexible electrical cords connected to equipment and outlets are to have strain relief so that pulling on the cord will not transfer the force to the outlet.
- ✓ Flexible electrical cords are to have three prongs so that the equipment can be grounded through the building system.
- ✓ All electrical equipment and wiring is to be guarded or insulated to prevent contact with live electrical systems.
- ✓ All electrical panels are to be clearly marked and circuits labeled so it is evident what systems the circuits supply.
- ✓ All electrical panel boxes are to be enclosed and the door closed.
- ✓ All equipment and electrical cords used are to be UL listed for use in the specific environment.
- ✓ All unused openings in cabinets, boxes and fittings are to be effectively closed.
- ✓ Splicing of electrical systems is not allowed unless it is performed by a qualified individual and insulation is provided equivalent to that of the original insulation.
- ✓ Electrical safety-related work practices apply to both qualified employees (those who have training in avoiding electrical hazards) and unqualified employees (those with little or no training).

The _____ *(Responsible individual or Department)* should be notified whenever any employee observes a condition that could present an electrical hazard.

To assist _____ *(Responsible individual or Department)* with conducting inspections there are two safety checklists in Appendix F entitled:

- Electrical Components and Equipment for General Use
- Electrical Wiring Design and Protection

Electrical Systems in Hazardous Locations

Examples of areas that may potentially have explosive environments include sewage treatment, gasoline dispensing stations, flammable/combustible liquid storage rooms, and spray painting using flammable liquids.

Sewerage treatment facilities operated by _____ *(Municipal Entity Name)* include potentially explosive environments due to the presence of methane gas. Examples of potentially explosive environments include wet wells, digesters, and sewer manholes.

Locations are classified depending on the properties of the flammable vapors, liquids or gases, or combustible dusts or fibers that may be present and the likelihood that a flammable or combustible concentration or quantity is present. Each room, section or area is evaluated individually in determining its classification. The specific type of electrical systems, wiring, electrical cords, permanent equipment, portable equipment, tools and machinery allowed in these areas is determined by the classification of the work area. Common terms used to describe the electrical systems in these areas are "intrinsically safe" and "explosion proof".

_____ *(Municipal Entity Name)* relies on _____ *(Design Engineering Firm)* to determine the classifications and the type of electrical systems, wiring, electrical cords, permanent equipment, portable equipment, tools and machinery that are allowed to be used in the classified area.

All employees working in and around these classified work areas are to be trained and familiar with:

- ✓ Signage for the areas.
- ✓ Specific location and boundaries of the classified areas.
- ✓ Types of equipment, tools and machinery that can be used in the area.
- ✓ Procedures for working safely within the specific classified environment.
- ✓ Recognizing changes in the area that could present the potential for ignition.
- ✓ Reporting deviations in the use and maintenance of the equipment, tools, machinery and procedures that could present the potential for ignition.

Emergency Plans and Evacuation

_____ *(Municipal Entity Name)* has evaluated the types of

emergencies that realistically can be expected to occur. Key individuals have been identified that are responsible for communicating and coordinating a response to emergency situations.

All employees are provided training related to emergencies and evacuations that are specific to their location. The training includes:

- Types of emergencies
- Key individuals at your location
- Reporting emergencies and alerting others
- Evacuation and escape routes
- Chain of command and related responsibilities
- Drills

Note: *A model Emergency Plan is included in Appendix G. This should be customized to meet the exposures and management systems that exist at your location.*

Emergency Escape and Self Rescue Ropes and System Components for Firefighters (Code Rule 800.7)

Fire departments are responsible for conducting risk assessments to identify occupancies which may present challenges to escape if firefighters are entrapped during interior firefighting operations in structures to which they are likely to respond to in their primary response area.

Depending on the outcome of the risk assessment, fire departments may also be responsible for:

- Documenting any existing mitigating factors (engineering controls) or standard operating procedures (administrative controls) that would facilitate escape if entrapped at elevations.
- Identifying the appropriate emergency escape system(s) (personal protective equipment) to allow a firefighter to escape from elevation.
- Training each interior firefighter on the engineering and administrative controls and the operational features of the emergency escape systems used by their department.
- Developing policies and procedures for periodically reviewing and/or inspecting the emergency escape systems and methods to ensure they are safe for use.

Note: *A sample form to document the Risk Assessment is provided in Appendix H.*

Each firefighter who is provided with an escape rope and system components will be instructed in the proper use. The instruction will include hands-on use of the equipment in a controlled environment. A record of the instruction, including the name of the individual being trained, the name of the individual delivering the training, and the date on which the training was provided will be maintained.

_____ *(Insert name of Fire Department)* will routinely inspect emergency escape systems to help ensure the adequacy of safety ropes and system components. The inspection will help ensure that:

- Existing emergency escape systems meet the codes, standards and recommended practices adopted by the commissioner.
- Existing emergency escape systems still perform their function and to identify any of their limitations such as but not limited to:
- Checking the labels or stamps on the equipment; and
- Checking any documentation or equipment specifications; and
- Contacting the supplier or the approval agency.
- Firefighters are informed of the limitations of emergency escape systems.
- Firefighters are not allowed or required to use any emergency escape systems beyond their limitations.
- Existing and new emergency escape systems have no visible defects that limit their safe use.
- Emergency escape systems are used, cleaned, maintained and stored according to manufacturer's instructions.
- The firefighter is instructed in identifying any defects that the firefighter may find in emergency escape systems.
- Any identified defects are corrected or the equipment is removed from service.

Note: *A guide for completing inspections of emergency escape equipment is provided in Appendix I.*

Ergonomics

Lifting, handling of materials and repetitive work activities present the potential for strains, sprains and musculoskeletal injuries. To reduce the work-related risks of back injury, consider the following factors when designing, planning and organizing work tasks:

- Limit the weight of the object to a maximum of 51pounds.
- Reduce the reaching distance.
- Keep the heaviest side of the load next to the body.

- Adopt a stable position with feet apart and one leg slightly forward to maintain balance.
- Provide a handle for a secure grip or hug the load as close to the body as possible.
- Balance the weight being lifted on both arms.
- Start the lift as close to waist height as possible.
- End the lift as close to waist height as possible.
- Maintain posture with slight bending of the back, hips and knees.
- Lift the load as the legs begin to straighten.
- Reduce twisting the torso - if turning is required, move the feet as you turn to carry the object.
- Reduce the number of times a lift must be repeated.

Excavations and Trenching

Cave-ins pose a significant risk, and are much more likely than other excavation related accidents to result in worker fatalities. Other potential hazards include falls, falling loads, hazardous atmospheres, and incidents involving mobile equipment. One cubic yard of soil can weigh as much as a car. Do not enter an unprotected trench.

Safety considerations during excavation and trenching activity include the following:

- Know where underground utilities are located before digging.
- All excavation and trenching operations will be supervised by a competent person. A competent person is an individual who is capable of identifying existing and predictable hazards or working conditions that are hazardous, unsanitary, or dangerous to workers, soil types and protective systems required, and who is authorized to take prompt corrective measures to eliminate these hazards and conditions.
- The competent person will inspect trenches daily and as conditions change (i.e. following a rainstorm or water intrusion) before worker entry to ensure elimination of excavation hazards.
- Trenches 5 feet deep or greater require a protective system unless the

excavation is made entirely in stable rock. If less than 5 feet deep, a competent person may determine that a protective system is not required.

- Trenches 20 feet deep or greater require that the protective system be designed by a registered professional engineer or be based on tabulated data prepared and/or approved by a registered professional engineer.
- Designing a protective system can be complex because you must consider many factors: soil classification, depth of cut, water content of soil, changes caused by weather or climate, surcharge loads (e.g., spoil, other materials to be used in the trench) and other operations in the vicinity. There are different types of protective systems including:
- Benching means a method of protecting workers from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps, usually with vertical or near vertical surfaces between levels. Benching cannot be done in type C soil.
- Sloping involves cutting back the trench wall at an angle inclined away from the excavation.
- Shoring requires installing aluminum hydraulic or other types of supports to prevent soil movement and cave-ins.
- Shielding protects workers by using trench boxes or other types of supports to prevent soil cave-ins.
- Provide safe access and egress to all excavations, including ladders, steps, ramps, or other safe means of exit for employees working in trench excavations 4 feet or deeper. These devices must be located within 25 feet of all workers.
- Do not work under suspended or raised loads and materials.
- Ensure that personnel wear high visibility or other suitable clothing when exposed to vehicular traffic.
- Keep heavy equipment away from trench edge.
- Identify other sources that might affect trench stability.
- Keep excavated soil (spoils) and other materials at least 2 feet from trench edges.

Exits

- Every building and facility is to be designed with exits to permit the prompt escape in an emergency.
- In hazardous areas where employees may encounter an exit blocked due to fire, smoke or chemical leaks a second means of egress is to be provided that is remote from the other exit.
- All exits are to discharge directly to the street or open space that provides safe access to a public way.
- Exit doors are to swing in the direction of exit travel.
- Exits are to be marked, readily visible and illuminated. The word “EXIT” is to be

legible.
- Doors, stairways and passageways that could be mistaken as an exit, but is not intended to be an exit, are to be clearly identified with a sign “Not an Exit”.

Fire Protection

_____ *(Municipal Entity Name)* employees are not expected to fight fires as part of their job responsibility. ***(Note:** If you are firefighter, your job responsibilities differ from the other employees.)* In the event of a fire in the workplace the primary responsibility is to exit the building safely and notify others to evacuate by following the building specific emergency plans.

_____ *(Municipal Entity Name)* maintains various fire protection systems including the following (*choose those that apply to your organization and edit based on site specific circumstances*):

- ✓ **Portable fire protection systems** – All municipal buildings and facilities that are occupied are supplied with portable fire extinguishers for employee use in workplace emergencies. The fire extinguishers are located and mounted so that they are readily identifiable and accessible. A vendor is used to inspect and maintain the fire extinguishers. If you use a fire extinguisher or note that one is discharged or damaged please report it to _____ *(Name of responsible individual or department)*.

In most cases the fire extinguishers provided are A-B-C Classification which means they can be used on a wide variety of fires including:

- Class A – Ordinary combustibles
- Class B – Flammable liquids and gases
- Class C – Electrical fires
- Class D – Combustible metals

In some kitchen areas they may be Class K fire extinguishers which are designed for use with cooking oil and fat fires.

- **Fixed fire suppression systems** – These systems are permanently installed and are designed to control a fire at the location of the system. Examples of these systems include sprinkler systems, Ansul systems over the cooking area, and the special systems in the computer server room. These systems are designed to detect a fire and to operate automatically while also sending out an alarm to the building occupants and in some cases to an alarm company that notifies the fire

department. These systems are inspected and maintained on an ongoing basis by an outside vendor.

- **Fire detection and employee alarm systems** – Some of the municipal properties have heat and smoke detectors throughout areas of the building. In the event that heat or smoke is detected the building fire alarm will activate and in some cases the alarm will be sent to an alarm company that notifies the fire department. In the event that a fire alarm is activated your primary responsibility is to leave the building promptly and safely while following the emergency evacuation plan.

First Aid

The _____ *(Municipal Entity Name)* first aid program is intended to provide intervention while awaiting arrival of emergency medical service (EMS) personnel. Our employees may we working at fixed locations or at various sites throughout the municipality. The level of first aid staff and equipment can vary based on where you are working when an injury or illness occurs.

As part of our First Aid program we have taken the following steps:

- Identified and assessed the workplace risks that have potential to cause worker injury or illness.
- Designed and implemented a first-aid program that aims to:
  - ✓ Minimize the outcome of accidents or illness.
  - ✓ Include sufficient quantities of appropriate and readily accessible first-aid supplies and first-aid equipment, such as bandages and automated external defibrillators.
  - ✓ Assign and train first-aid providers who receive first-aid training suitable to the specific workplace and receive periodic refresher courses on first-aid skills and knowledge.
  - ✓ Instruct employees about the first-aid program, including what workers should do if a coworker is injured or ill.
  - ✓ Provide for re-evaluation of the first-aid program to keep the program current and applicable to emerging risks in the workplace.

To support the first-aid program each Department is responsible for inspecting their area for the following:

- Presence of stocked First Aid kits and equipment in buildings and vehicles.
- Identification of First Aid volunteers in the area.
- Arranging for First Aid training.
- Maintaining signage related to the First Aid equipment location and emergency

communication phone numbers.
- Notifying _____ *(Responsible Individual or Department)* regarding the first aid needs of their area.

Fixed Stairs

- Stairs with four or more risers are to have railings on all open sides and handrails are to be provided on at least one side of closed stairways.
- Stair rise height and width are to be uniform.

Refer to the NFPA 101 Life Safety Code for specifics on stair dimensions.

Flammable Liquids

There are a variety of flammable liquids used throughout the municipal departments. Some examples include gasoline, alcohols, paints, paint thinner, and degreasers. Safety rules include:

- ✓ Keep flammable liquids in approved, covered containers when not in use.
- ✓ Store flammable and combustible liquids in UL listed flammable liquid storage cabinets, and/or in rooms designed specifically for the storage of flammable liquids.
- ✓ Storage outside of the cabinets or a storage room in the general work area is limited to:
- 25 gallons for Class IA liquids (such as gasoline and alcohols).
- 120 gallons for Class IB, IC, II and III liquids (such as diesel fuel).
- 660 gallons of Class IB, IC, II or III liquids in a single portable tank.
- No more than 60 gallons of Class I or Class I liquids and no more than 120 gallons of Class III liquid can be stored in one storage cabinet.
- Flammable and combustible liquids are to be drawn from or transferred into containers from UL approved safety cans or a closed piping system that is drawn from the top or by gravity through an approved self-closing valve. Transferring by means of air pressure is not permitted.
- When transferring Class I liquids the nozzle and container are to be electrically interconnected and the container grounded.
- Inside flammable and combustible storage rooms are to be constructed in accordance with NFPA 30 – Flammable and Combustible Liquids Code.
- Outside storage areas are to be placarded, designed to contain spills, divert the flow away from a building, protected against tampering, trespassing and kept free of weeds, debris and other combustible material.

- All flammable materials are to be stored and used in a way that precautions are taken to prevent ignition of the flammable vapors. Examples of sources of ignition include open flames, smoking, electrical systems, lighting, cutting, welding, hot surfaces, frictional heat, static, electrical and mechanical sparks, radiant heat and heat-producing chemical reactions.

Flammable Liquid Spray Painting

Spray painting with flammable liquids presents a special hazard that can generate uncontrolled fires in the workplace. Where feasible, the municipality will subcontract out spray painting jobs such as vehicle refinishing and tank coating.

For smaller spray painting projects such as using aerosol cans or spray guns to paint small parts the safety rules include:

- Work is to be done within spray booths that meet the design standards of NFPA Codes 30 and 33.
- Air velocity across the face of the spray booth will meet the manufacturers design standard at all times including the use of visible gauges and/or audible alarms to indicate that the required air velocity is maintained.
- Filters are to be inspected regularly and replaced before they are clogged.
- A clear space of at least 3 feet is to be maintained on all sides of the spray booth.
- The spray booth is to have sprinkler protection on both the upstream and downstream sides of the filters.
- No open flames or spark producing equipment is to be in the spray booth or within 20 feet of the operation unless separated by a non-combustible partition.
- Electrical wiring and equipment located in the spray area is to be explosion proof.
- The quantity of flammable or combustible liquids kept in the vicinity of the spraying area is to be minimized and not exceed a 1 day supply.
- Bulk storage of portable containers of flammable or combustible liquids is to be separate from the operations in a detached building or cut off with adequate separation.
- All containers used to transfer flammable and combustible liquids are to be bonded and grounded to prevent discharge sparks of static electricity.
- Spraying areas will be cleaned up daily to reduce the accumulation of combustible deposits.
- Tools used for cleaning are to be of non-sparking material.
- Residue and debris from the spray paint area is to be removed, stored in UL disposal containers and disposed of in accordance with environmental regulations.
- “No Smoking” signs are to be conspicuously posted.

Floor Conditions

All floor surfaces are to be kept free of miscellaneous storage, clean, dry and free from protruding nails, splinters, loose boards, holds or projections.

When wet tasks are required in a work area the drainage is to be maintained to reduce the potential for slippery conditions. Platforms, mats and grated floors are options for use so to reduce the need to walk and work on slippery floor conditions.

Floor and Wall Openings

Stairways, platforms and floor openings present the increased potential for falls. These areas are to be guarded with railings and toe boards on all exposed sides except the entrance. Hatchways or hinged floor opening covers can be used to cover the opening and are to be designed to support the weight of the people and equipment that may travel over the opening.

Forklifts (Powered Industrial Trucks)

Only employees who have been trained are allowed to operate fork trucks. The training is provided by the equipment supplier since it is specific to the equipment being operated.

An OSHA e-Tool is available on the OSHA website that contains guidelines and videos to support training. A copy of the e-Tool text is included in Appendix J and is entitled "Forklifts – Powered Industrial Trucks".

Hand Tools and Power Tools

- ✓ All hand tools are to be kept in good repair and used only for the purpose for which designed.
- ✓ Tools having defects that will impair their intended operation or render them in any way unsafe for use are to be removed from service immediately.
- ✓ When work is being performed overhead, tools not in use are to be secured or placed in holders.

- ✓ Throwing tools or material from one location to another, from one employee to another, or dropping them to lower levels, is not be permitted.
- ✓ Only "non-sparking" tools are to be used in locations where sources of ignition may contribute to a fire or explosion.
- ✓ Power tools are to be inspected, tested, and determined to be in safe operating condition prior to use. Continued periodic inspections are to be made to ensure safe operating condition and proper maintenance.
- ✓ The use of cranks on hand-powered winches or hoists is prohibited unless the hoists or winches are provided with positive, self-locking dogs. Hand wheels without projecting spokes, pins, or knobs should be used.
- ✓ Portable power nailing and stapling tools are to be operable only when held against the work surface. If it is necessary to operate a trigger or switch for each fastener driven, these two operations are to be separate.
- ✓ Manufacturer's prescribed, safe operating procedures for hydraulic hoses, valves, pips, filters and other fittings are to not be exceeded.
- ✓ All hydraulic or pneumatic tools which are used on or around energized lines or equipment are to be equipped with non-conducting hoses having adequate strength for the normal operating procedures.
- ✓ Loose, fringed or frayed clothing; loose, untied, long hair; dangling jewelry, rings, chains and wrist watches are to not be worn while working with any power tool or machine.

Hazard Communication Program: The Right-to-Know Law

Federal and state "Right-to-Know" laws are based on the principle that employees have a right to know all of the health hazards associated with their exposure to hazardous materials in the workplace. Knowledge of the health hazards makes it possible for the employee to observe symptoms of overexposure in themselves and understand the relationship between the symptoms and exposure, thereby being able to evaluate the need for changes in the work environment.

The New York State Right-to-Know law requires employers to:

- Make information available to employees regarding the nature and hazards of hazardous materials found in the workplace.
- Provide training to employees.
- Maintain safety material data sheets (MSDS or SDS).
- Maintain a written Hazard Communication Program including labeling of all hazardous materials.
- Maintain record keeping.

- Provide employee training; initially on new exposures and annually.
- Provide an explanation of employee rights.

Note: *A model Hazard Communication: Right-to-Know Plan is included in Appendix K. This should be customized to meet the exposures and management systems that exist in your municipality.*

Hazardous Waste Operations and Emergency Response

Note: *This section is relevant for municipal entities that have EPA regulated hazardous waste clean-up sites and treatment storage and disposal (TSD) sites that may require a response to emergencies involving a hazardous substance.*

The OSHA regulation 1910.120 is very detailed and requires site specific knowledge. In many cases a municipal entity will have an onsite contractor who is overseeing the hazardous waste site. Consult the OSHA regulation for more guidance. In general the regulation requires the following:

- An emergency plan is required for all potential emergencies involving hazardous chemical sites and who respond to any emergencies at these sites. Depending on the employees level of involvement the training can range from 8 to 40 hours. The training is to cover how to perform the tasks safely including the use of personal protective equipment and procedures to safeguard employees against hazards and effects of exposure to toxic substances.
- A written health and safety program (HASP) is to be developed by the onsite contractor or the municipal entity that delineates responsibilities and methods for supporting employee safety that is necessary during hazardous waste clean-up or TSD activities.
- Medical surveillance (physical exams) is required for employees dealing with hazardous waste and other hazardous materials.
- Personal protective equipment is selected and used to protect employees from hazardous substances and physical hazards.
- When necessary, a decontamination procedure is to be used so that hazardous substances are removed from employees before they leave the worksite as well as from equipment that is taken off the site.

Hearing Protection Program

The majority of tasks performed by _____ *(Municipal Entity Name)*

employees are done intermittently throughout the day and do not involve full-day noise exposures. Some examples of noisy tasks performed by our employees can include operating jack hammers and road construction equipment, operating blowers, mowers, weed wackers, and using firearms.

Noise sampling has been performed on various tasks and (*choose from one of below)*:

- None of the tasks exceeded an 8-hour time weighted average of 85 decibels (dBA)
- The following tasks were between 85-90 dBA based on a 8-hour time weighted average:
  ✓
  ✓
- The following tasks were above 90 dBA based on a 8-hour time weighted average:
  ✓
  ✓
- The following tasks had peak exposures above 140 dBA:
  ✓
  ✓

For all employees who may work on tasks that range from 85-90 dBA based on an 8-hour time weighted average the following hearing protection program elements will be implemented:

- ✓ A copy of the NYPESH/OSHA standard will be available.
- ✓ A written copy of the _____ *(Municipal Entity Name)* hearing conservation program will be made available.
- ✓ Noise monitoring will be conducted and results provided to the employees.
- ✓ Annually, audiometric testing will be conducted and the results shared with the employee.
- ✓ A variety of hearing protection will be available in the work area and employees will be trained in the use, limitations and care of the hearing protection.
- ✓ Employees will be encouraged to wear hearing protection while performing noisy tasks.
- ✓ Employees with audiometric test results demonstrating a threshold shift by the Audiologist will be required to wear hearing protection while performing or working in close proximity to noisy tasks.

For all employees who may work on tasks that exceed 90 dBA based on an 8-hour time weighted average these additional hearing protection program elements will be

implemented:

- Use of hearing protection will be mandatory.
- _____ *(Municipal Entity Name)* will explore practical ways to reduce the noise generated by the specific tasks and changes will be made to reduce the noise where feasible.

Loud, short duration and/or impact noise can also result in damage to the ear. The following tasks can involve short term noise exposure and the use of hearing protection is mandatory *(list any that apply to your operations, some examples are below):*

- ✓ Operating firearms at the practice range
- ✓ Working next to a portable air compressor
- ✓ Working on or near construction equipment used to break up road surfaces
- ✓ Jack hammering
- ✓ Leaf blowing

Note: *A sample Hearing Conservation Program is provided in Appendix L.*

Heavy Equipment Operation

These procedures are designed to provide guidance for the safe operation of municipal equipment, and to minimize the accident potential to employees and citizens. There is a risk of injury and/or property damage to employees, and the public in the daily operation of municipal-owned equipment. Safe operation of the heavy equipment is based on using qualified employees and following pre-planned instructions with well-maintained equipment that is suited for the job. The following are safety operational practices related to heavy equipment use.

Training

- All equipment operators will receive initial and continuing refresher training. Only trained, authorized personnel will be allowed to operate equipment.
- Training will include the data specified in the manufacturer's manual as well as any Department specific training elements.
- Special equipment such as tractors, hi-lifts, high rangers, graders, plows, cranes or any unit which has special devices added for specific types of work require formal instruction prior to use by an equipment operator. This special training will include the following:

- Explanation and demonstration of all control devices.
- Explanation and demonstration of all safety equipment.
- Knowledge of maintenance items such as fuel, water, oil or other minimum operating needs of the unit.
- Demonstration of equipment operation.
- New driver operation, under supervision, with hands-on testing.
- Instruction in driving to and from, or on and off a trailer, parking procedures and method for securing.
- A record of training will be maintained.
- Use of special equipment without proper training and authorization will result in disciplinary action.

Maintenance/Servicing

- Operators are expected to service equipment as specified in their initial training.
- Maintenance and servicing will be performed only after shutdown, appropriate checking/blocking and guarding of service/maintenance access areas.
- Deck plates, steps and floor areas will be kept clear and free of greases, oil, etc. and will have non-slip materials applied as necessary.

Operation

- ✓ Operators will mount and dismount equipment only by using available steps, handholds, etc.
- ✓ Equipment will be inspected prior to the start of each day to ensure the engine is ready, actuating systems serviced and all safety devices are functional.
- ✓ Operators will always make sure that the front, sides, and rear are clear prior to moving any machines. Additional checks for overhead clearance will be made on cranes, lifts, platforms and trenchers before movement.
- ✓ Operators will always look around and have a person guiding them when backing.
- ✓ Speeds are to be governed by conditions, i.e., reduce speed and use caution on:
    - Road shoulders
    - Steep grades
    - Rough surfaces
    - Congested areas
    - Wet or ice-covered surfaces

- Loaded equipment will have right-of-way on haul roads and all equipment will

stop prior to entry on public roads unless appropriate traffic controls are established.

- Passengers will ride only in seats so designed for passengers.
- Construction-type equipment will travel at less than 20 MPH without exception:
  - ✓ This equipment will use the right lane except when a left turn is required.
  - ✓ Right-of-way will be given to other motor vehicles.
  - ✓ Headlights will be on at all times when driving down the street.
  - ✓ Triangular, orange-colored slow moving vehicle signs will be displayed on the rear of the vehicle.
- Coupling and towing require special procedures including:
  - ✓ If an assistant is present, equipment should be backed on the assistant's signal only.
  - ✓ Before coupling, the shift lever is to be placed in neutral and the brakes set.
  - ✓ Towed units are to have a safety chain connected to the pulling unit.
  - ✓ Towed equipment is to be latched, bolted or otherwise secured for maximum clearance and to prevent drops/ground strikes.

Shutdown/Parking

- Whenever feasible, equipment will be returned to the storage yard at the end of each workday. If removal is not feasible, appropriate advisory/warning devices will be installed prior to job site departures.
- Before leaving any equipment, the operator will lower the blades, bowl or bucket to ground level/flat surface and out of traffic flow. If level surface is not available, blocks or chocks should be inserted to prevent vibration-induced movement.
- Equipment is to be positioned well clear of traffic routes prior to shut down.
- Equipment parked at the job site will be secured to preclude vandalism or theft, through the removal of ignition keys, distribution rotors, battery cables, spark plugs, etc. as necessary.
- Loading/unloading of equipment will be accomplished away from traffic routes unless appropriate warning devices or flagmen are pre-positioned to control traffic.

Injury Response and Return-to-Work

If you are off work more than one day beyond the day an injury occurs, your injury is considered a "lost time injury". You are expected to provide a doctor's note that indicates that you were seen by a physician, along with your next appointment,

expected amount of absence or expected date of return to work. You are expected to keep your supervisor or department head advised on a continuous basis of your treatment and return to work plans.

Follow-up Medical Care Visits

Employees are required to attend all scheduled follow-up visits with medical providers unless other arrangements have been made and approved by the _____ *(Responsible Individual or Department)*. Individuals who miss appointments and have not returned to their jobs because of injury may be considered absent without permission from their jobs.

Employees who have been hospitalized for job-related injuries must call or report their status to the _____ *(Responsible Individual or Department)* immediately upon discharge from the hospital.

Each appointment for treatment or a return visit is to be considered the end of your period of care unless new instructions are given after the visit. Failure to keep appointments or to report status immediately after such visits is the same as not showing up for work and not calling in.

Return to Work/Light Duty

Occasionally, light duty is available so that employees may return to work sooner. This duty is available only after consultation with the individual's supervisor, the department head, and the _____ *(Insert Senior Management Individual or Department)*. Light duty may be assigned in a department other than the employee's home department. If no light duty is available, the employee must remain off the job until released by a doctor for full duty.

Return to Work

No employee may return to work from an injury involving lost time resulting from broken bones, suturing or other minor surgical procedures, loss of consciousness or seizures without a doctor's release and without a release from the _____ *(Responsible Individual or Department)*.

Laboratory Safety

The _____ *(Municipal Entity or Department Name)* employees working in the water and wastewater laboratories are required to be familiar with the health and safety hazards specific to the laboratory operations. A Laboratory Chemical Hygiene Program has been developed to address the lab specific hazards and safety procedures. The plan covers the following:

- Standard Operating Procedures
- Control Measures to Reduce Employee Exposures to Chemicals
- Fume Hood and Protective Equipment Maintenance
- Employee Information and Training
- Review and Approval of Higher Hazard or Unique Laboratory Work
- Medical Assistance
- Hazard Identification
- Emergency Response
- Recordkeeping

Note: *A Sample Laboratory Chemical Hygiene Program is included in Appendix M.*

Ladders

The following safety procedures can reduce the potential for accidents while working on and around ladders:

- Inspect all ladders before each use for defects and damage. If a ladder is damaged do not use it and place a tag on it stating “Dangerous, Do Not Use”.
- Metal ladders cannot be used in the vicinity of electrical circuits.
- Inspect wooden ladders as they shrink over time. In a stepladder, this may cause steps or back bar members to become loose.
- Wooden ladders cannot be painted because defects may be covered up. Use spar varnish or a mixture of linseed oil and turpentine to preserve the wood.
- Use non-skid feet on all straight and extension ladders.
- Place the feet of the ladder about one-fourth as long as the vertical ladder extension (i.e., if the ladder is leaned against a wall eight feet high, the feet should be set two feet from the wall.) Ladders should never be placed against window sashes.
- When using a straight ladder, it should be long enough to extend at least three feet above the level to which the user is climbing. Do not use stepladders in lieu

of straight ladders.

- If the feet of a straight ladder are to rest on an unsecured surface, secure the ladder in position by use of hooks, spikes, cleats or other anti-slide devices or by stationing an employee at the base of the ladder to hold it in position during use.
- Never stand on the top step of a stepladder.
- Only one person is allowed on a ladder at a time.
- Do not carry articles in hand while climbing. Use a hand line to raise and lower tools and materials or suspend them in a tool belt.
- Always face a ladder when ascending or descending and always use both hands.
- Clean muddy or slippery shoes before beginning to climb the ladder.
- Keep rungs clean and free of grease, oil, or caked-on dirt. If it is necessary to place a ladder near a door or where there is potential foot traffic, set up warning signs or take other precautions to prevent accidental contact that might upset the ladder.
- For ladders more than 20 feet that are affixed to towers, water tanks or other structures, the ladder is to be equipped with cages, wells or ladder safety devices. The tops of cages of fixed ladders are to extend 42 inches above the top of the landing are to be provided.

Lead

_____ *(Municipal Entity Name)* employees may encounter lead contained in the paint on older, historical buildings. The potential for exposure is increased when disturbing the paint and when there are dusty conditions and housekeeping is not maintained. Other times employees could encounter lead is when working on plumbing systems that have solder joints, and in recycling operations.

Lead surveys have determined that (*choose from the options below):*

- None of the buildings and facilities owned by the municipality contains any lead materials.
- All buildings and facilities have had the lead materials removed and thus there is not any known lead remaining on municipal property.
- Some of the buildings and facilities contain lead and these areas are labeled, maintained and monitored to reduce the potential for the uncontrolled release of lead dust. A copy of the lead survey identifying the location, type and conditions of the lead, and the long term operations and maintenance program is available at _____ *(Insert Department and Location)*. This program includes the following:

- ✓ Identifying all the lead in each building and the facilities.
- ✓ Assessing the condition and exposure hazards of all lead based materials.
- ✓ Education of affected employees in the presence of lead, the hazards and protective measures taken.
- ✓ Air monitoring to determine the airborne concentration is below the OSHA Action Level.
- ✓ Assuring that all lead containing material is maintained in good condition.
- ✓ Removing any lead containing material by a qualified lead abatement contractor prior to construction and demolition activities.
- ✓ Developing a long term Operations and Maintenance Program.
- ✓ Performing thorough building inspections.
- ✓ It is not expected that employees will be exposed to lead dust and fume above the OSHA Action Level. In the event that any activities, observations or monitoring indicate that employees may be exposed above the Action Level the following additional precautions will be taken:
    - o Exposure monitoring.
    - o Provision of protective clothing and equipment.
    - o Respiratory protection.
    - o Enhanced housekeeping.
    - o Medical surveillance.
    - o Removal from work activities if lead absorption is medically determined.

- Assuring that all members of the staff who work in a building or around facilities that contain lead receive training in accordance with 29 CFR 1910.1025 to include information such as, lead its uses and forms, health effects associated with exposure, and the locations of lead identified in a building and facilities.

A full copy of the OSHA Lead Standard 29 CFR 1910.1025 is available, and the responsibility for development and ongoing implementation of the Lead Management Program rests with _____ *(Responsible individual or Department)*.

Liquefied Petroleum Gas Storage

Some of the municipal buildings use liquefied petroleum gas (LPG) as the heating fuel source. Safety rules include:

- Use a contractor that will supply the tank, install the tank in accordance with recognized standards and provide for all of the maintenance. A written contract should be reviewed by the municipal legal representative that defines the responsibilities of the tank and fuel supplier.

- Tanks are to be located on a stable foundation.
- Tanks are to be clearly placarded noting the contents, warnings and no smoking signage.
- Tanks are to be kept clear of combustible debris and weeds.
- Tanks are to be inspected regularly for exterior signs of corrosion and other deteriorating conditions.
- Tanks are to be located away from critical buildings. For example, a 501-2000 gallon tank is to be at least 25 feet from the building.
- OSHA 1910.110 – Standard for Storage and Handling of Liquefied Petroleum Gases is one reference for specific requirements.

Lockout-Tagout (Control of Hazardous Energy)

Before any employee or subcontractor performs service or maintenance on machinery or equipment, the machinery or equipment will be rendered safe to work on by being locked/tagged out. This includes where the unexpected energizing, startup, or release of any type of energy could occur and cause injury. Examples of equipment and machinery that require lockout/tagout at _____ *(Municipal Entity or Department Name)* site include *(Insert site specific examples below)*:

A written Lockout-Tagout program has been developed and is included in Appendix N. The program includes:

- Equipment and machine specific lockout-tagout procedures
- Responsibilities of management, employees and contractors
- Testing and restoring energy sources
- Procedures involving more than one person
- Removal of the lock-tag by other than the Authorized Employee
- Informing outside contractors
- Shift or personnel changes
- Electrical lockout-tagout and testing for de-energized circuits
- Work on energized circuits
- Periodic inspections
- Training
- Accident investigations

(Customize the sample Lockout-Tagout Program to address the specific equipment, machinery, procedures and responsibilities.)

Machine Guarding

Power Saws

- Circular saws are to be equipped with guards that automatically and completely enclose the cutting edges and shall be provided with splitters and anti-kickback devices.
- Cracked, bent, or damaged blades will be replaced immediately.
- Power saws are not to be left running unattended.
- Radial arm power saws are to be equipped with automatic brakes.
- The table of radial arm or swing saws is to extend beyond the leading edge of the saw table.
- All swing cutoff and radial saws or similar machines which are drawn across a table are to be equipped with limit stops to prevent the leading edge of the tool from being thrown back toward the operator.
- Each hand-fed crosscut table saw and each hand-fed circular ripsaw is to be furnished with a spreader to prevent the material from squeezing the saw or being thrown back toward the operator.
- All portable, power-driven circular saws are to be equipped with guards above and below the base plate or shoe. The upper guard shall cover the saw to the depth of the teeth, except for the minimum arc required to permit the base to be tilted for bevel cuts. The lower guard shall cover the saw to the depth of the teeth, except for the minimum arc required to allow proper retraction and contact with the work. When the tool is withdrawn from the work, the lower guard is to automatically and instantly return to the covering position.

Woodworking Machinery

- The manufacturer's instructions are to be followed regarding the installation, operation and maintenance of woodworking machinery.
- A brush is to be provided for the removal of sawdust, chips, and shavings from all woodworking machinery.
- The power control for each machine is to be located to prevent accidental starting and to enable the operator to cut off the power without leaving his operating position. All fixed power-driven woodworking tools are to be provided with a disconnect switch that can either be locked or tagged in the off position.
- Blades of planers and jointers are to be fully guarded and have cylindrical heads with throats in the cylinder.
- A push-stick, block or other safety means is to be used on all operations close to high-speed cutting edges.
- Band saw blades are to be fully enclosed except at the point of operation.

- Use of cracked, bent, or otherwise defective parts such as saw blades, cutters and knives is strictly prohibited.

Medical and Exposure Record Access

All _____ *(Municipal Entity Name)* employees and their designated representatives have a right of access to relevant exposure and medical records. Additionally, representatives of the Assistant Secretary have a right of access to these records in order to fulfill responsibilities under the Occupational Safety and Health Act. Access by employees, their representatives, and the Assistant Secretary is intended to yield both direct and indirect improvements in the detection, treatment, and prevention of occupational disease.

The activities involved in complying with the access to medical records are performed by _____ *(Insert Municipal Entity Human Resource Department, or the Physician or other Health Care Provider acting on behalf of the Municipal Entity who is in charge of employee medical records)*.

The definitions related to medical and exposure records are contained in OSHA 29 CFR 1910.1020. Except as expressly provided, nothing related to medical record access is intended to affect existing legal and ethical obligations concerning the maintenance and confidentiality of employee medical information, the duty to disclose information to a patient/employee or any other aspect of the medical-care relationship, or affect existing legal obligations concerning the protection of trade secret information.

Mowing and Weed Trimmer Safety

Our employees are responsible for maintaining recreation and park areas as well as the grounds surrounding the municipal buildings. Employees are often mowing, weeding and maintaining the properties with lawn mowers, tractors and weed trimmers. This equipment has the potential to injure operators or bystanders. Additionally, objects propelled by the blades or cords could also injure bystanders and damage nearby property or vehicles.

Some of the injuries associated with the operation of lawn tractors and weed trimmers include:

- Cuts and scratches to the lower legs
- Dust and debris getting into the eyes
- Hand and forearm lacerations
- Foot injuries and amputations

- Back and shoulder strains
- Fatalities from falls off or rollovers of riding mowers

Injuries to equipment operators may be reduced through proper use and maintenance of the equipment, coupled with wearing proper personal protective equipment (PPE).

Office Safety

Many of our employees work in an office environment. Offices are a relatively safe place to work, but there are hazards that can be present. The following are some safety tips relating to office safety:

- Maintain a neat and orderly work area.
- Keep aisles free and clear at all times.
- Watch where you walk. Keep an eye open for loose floor coverings, papers, boxes and electrical cords that could pose a tripping hazard.
- Open doors slowly and use caution when approaching a door that opens in your direction.
- Keep file, desk and table drawers closed when not in use.
- Load file cabinets from the bottom to keep from overloading the top drawers, and reduce the potential for cabinets to become top heavy. Secure cabinets to each other or the wall to reduce the potential for toppling over.
- Maintain office tables, desks and chairs in good condition, free from sharp corners, projecting edges, wobbly legs, etc.
- Use ladders to reach higher levels. Do not use a chair or desk as a makeshift ladder.
- Keep the blades of paper cutters closed when not in use.
- Avoid overloading of electrical circuits.

Pedestrian Safety

Job sites occasionally require working around areas where the general public has regular access. The key is to plan ahead so that there are procedures and equipment to organize and secure the job site.

To protect the public the following job site tips are provided:

- When official barricades impede pedestrian traffic, restrictive tape, rope or other restraints are to be used to keep the public away from the worksite.
- If pedestrian traffic must be routed off sidewalks and into the street, protection is to be provided by cones, barricades and signs, to guard from vehicular traffic.
- Holes in the sidewalk or roads which must be left open will be covered whenever possible along with perimeter protection. Every possible means of preventing accidental entry into the hole should be used. Keep in mind that darkness and snow can complicate this situation.
- Where an unusual situation exists that cannot be easily resolved, or when personal injury or damage to equipment occurs as a result of operations, contact the responsible department head and the _____ *(Responsible Individual or Department)* immediately.

Personal Protective Equipment (PPE)

Personal protective equipment (PPE) including protection of the eyes, face, head, extremities and respiratory system are provided to employees. The purpose of the PPE is to protect the employee from identified hazards or environments. PPE is available at _____ *(Where PPE is stored)* or by contacting _____ *(Person responsible for providing the PPE to employees)*.

The _____ *(Municipal entity or department name)* PPE program includes the following:

- Work tasks have been assessed to determine what hazards are likely to be present that may need employees to use PPE. ***(Note:** A Personal Protective Hazard Assessment worksheet is provided in Appendix O to help document this activity.)*
- PPE has been selected that is appropriate for protection of the hazards identified.
- A stock of PPE in varying sizes is maintained and readily available for employees thru the location and individuals identified above.
- All employees performing tasks that require the use of PPE are trained in the following:
    - ✓ When PPE is needed
    - ✓ What PPE is necessary
    - ✓ How to put on (don) and take off (doff) the PPE
    - ✓ How to adjust and wear the PPE
    - ✓ Limitations of PPE
    - ✓ Proper use, care, maintenance useful life and disposal of the PPE
- Employees are expected to use the PPE and Supervisors are expected to

encourage and require the use of PPE by the employees.
- If respirators are required, a separate respiratory protection program has been developed to provide more detailed guidance.

Pesticide – Handling, Use and Storage

The use and application of pesticides is restricted only to employees certified as pesticide applicators or by certified contractors. Use of pesticide products by non-certified personnel is strictly prohibited. The job positions that include responsibilities for pesticide handling, use, and storage include the following *(Insert job positions and/or pesticide subcontractors below):*

-
-

Some safety and health tips related to pesticide use and storage include the following:

- The most effective way to reduce risks posed by pesticides is to use non-chemical control methods to reduce or eliminate pest problems. Such measures include removing sources of food and water (such as leaky pipes) and destroying pest shelters and breeding sites (such as litter and plant debris).
- Read the label first and follow the directions, including all precautions and restrictions.
- Do not use products for pests that are not indicated on the label and do not use more pesticide than directed by the label.
- Use protective measures when handling pesticides as directed by the label, such as wearing impermeable gloves, long pants, and long-sleeve shirts. Change clothes and wash your hands immediately after applying pesticides.
- Before applying a pesticide (indoors or outdoors), have other people and pets leave the area, remove items such as toys and food, and keep people away until the pesticide has dried or as long as recommended by the label.
- Do not spray outdoors on windy or rainy days. Take precautions to keep the pesticide from drifting or running off into non-public areas and where people are present.
- Remove or cover food during indoor applications.
- If using a commercial applicator or lawn care service, ask for information about potential risks and safety precautions to take.
- Do not buy more pesticides than you will need. If you have leftover pesticides, coordinate the use and disposal with other knowledgeable departments in the government to determine whether your community has a household hazardous waste collection program or other program for disposing of pesticides. If no community program exists, follow label directions and any state or local

regulations regarding disposal.
- Keep the telephone number of your area Poison Control Center near your telephone.

Powered Platforms for Building Maintenance

- Only employees who have been trained in the use of the powered platforms (scaffolds) are allowed to operate the equipment.
- All platforms and powered scaffolds are to be inspected and tested for operability prior to use.
- All powered platforms and scaffolds are to be used in accordance with the manufacturer's instructions.
- All railings are to be in place when working in the elevated platform.
- The area underlying the platform is to be cordoned off to warn others not to walk below the work zone.

Recordkeeping

Health and safety records help to summarize the accidents and illnesses and can be used to help identify trends.

New York State requires that health and safety records be maintained on their own forms. Included in Appendices P and Q are the NY State Department of Labor instructions and forms entitled:

- Part 801 Recording and Reporting Public Employees' Occupational Injuries and Illnesses (Statutory authority: Labor Law § 27-a).
- Instructions for Recording and Reporting Public Employees' Occupational Injuries and Illnesses (as referenced by 12NYCRR Part 801) Form SH-900.
- Log of Work Related Injuries and Illnesses Form SH-900.
- Summary of Work Related Injuries and Illnesses Form SH-900.1.
- Injury and Illness Incident Report SH-900.2.

Reporting Potential Safety Hazards

An employee who feels any item or situation may potentially present a safety hazard should notify his/her supervisor or department head immediately. The supervisor or department head will take appropriate action to remove or reduce the hazard, and report the incident in writing using the Hazard Report Form (*Copy is in Appendix R*) to

the _____ *(Responsible individual or Department)*.

Respiratory Protection

_____ *(Municipal Entity or Department Name)* evaluates and designs tasks to reduce the potential that respiratory protection is required to perform the job. Based on a review of the common work tasks *(choose from one of below):*

- None of the work tasks are expected to require respiratory protection.
- The following job tasks have the potential to exceed the OSHA Permissible Exposure Limits (PEL's) or the American Conference of Governmental Hygienists (ACGIH) Threshold Limit Values (TLV's) thus respiratory protection is required:
  - ✓
  - ✓

The _____ *(Municipal Entity or Department Name)* respiratory protection program includes the following elements:

- Respirators have been selected on the basis of the hazard that the employee may be exposed to during a specific task.
- Procedures have been developed covering the selection and safe use of respirators in dangerous atmospheres that could be encountered in normal operations and emergencies.
- Employees and their Supervisors who may work on tasks requiring respiratory protection are trained in the selection, use, and maintenance of the respirators.
- Respirators are regularly cleaned, disinfected and inspected.
- Respirators and the associated filters and cartridges are maintained on an ongoing basis.
- Respirators used for emergencies are inspected monthly and after each use.
- Respirators are stored in convenient, clean and sanitary locations.
- Respirators are readily available near high risk tasks.
- Some tasks may require air monitoring and surveillance of work area conditions to evaluate the potential airborne exposures.
- Employees who are required to wear respirators are to be medically evaluated to determine that they are physically able to perform the work while wearing the respirator.

Note: *A sample respiratory protection program is provided in Appendix S. The program is to be specific to the operations and reviewed, revised and maintained by a knowledgeable individual.*

Safety Committee

It is the policy of the _____ *(Municipal Entity Name)* to provide a workplace and an environment as free as possible from recognized hazards which could cause injury or illness to our employees. A safety committee is established to enlist the participation of employees in the _____ *(Municipal Entity Name)* workplace safety and health program.

The Safety Committee will be responsible for designing, evaluating and monitoring safety performance for all _____ *(Municipal Entity Name)* operations. The Safety Committee includes representatives of management, labor and various departments who have specialized knowledge of the municipal operations. Meetings will be held on _____ *(Insert common time frame such as the first Tuesday of each month)* at _____ *(Insert location)*.

Membership

- The Safety Committee will be composed of _____ *(Insert number of members)* members who will be selected on the basis of their ability to recognize hazards, ability to communicate and work experience.
- The _____ *(Responsible Individual)* will act as an advisor to the committee and be available to provide technical assistance.
- The Committee chairperson will be elected by the committee and will be responsible for assuring that an agenda is developed for each meeting and that minutes are prepared.
- Department heads and other experts may be called upon to assist the committee with specific problems or proposals for changes in operational procedures.
- All members on the committee are expected to prepare for meetings, attend and participate.

Responsibility

- The Safety Committee will meet on a regular schedule (at least quarterly), with other meetings scheduled as needed.
- The Committee will:
    - ✓ Review existing safety and health rules and procedures; make sure that these rules are current, realistic, and implemented.
    - ✓ Review accident and injury reports to determine the root cause, and to

conditions that may have caused the accidents.
- ✓ Review any and all safety inspection reports.
- ✓ Involve all employees, not just the committee, in furthering the cause of accident prevention through open channels of communication to and from the committee to both employees and management.
- ✓ Assist in the identification of unsafe conditions and practices.
- ✓ Develop plans and recommend actions to remedy and prevent unsafe conditions and practices.
- ✓ Discuss and formulate safety and health policies and employee safety.
- ✓ Identify or develop handbooks, and/or relevant safety education materials and recommend their distribution by management.
- ✓ Publicize and promote implementation of the policies.
- ✓ Review safety training needs.
- ✓ Review and provide safety and health recommendations to management.
- ✓ Prioritize and publicize the actions of the safety committee and the overall workplace safety and health program.

Sanitation

For employees working in municipal buildings there are bathroom facilities including sinks, running water, toilets, paper towels and/or hand dryers to provide sanitation, and privacy. Employees working on park properties are encouraged to use nearby park restroom facilities as needed. Road crews working from vehicles are encouraged to use municipal facilities if convenient, and public facilities as needed. The road crews are equipped with hand sanitizer to facilitate hand washing.

Scaffolding

- Knowledgeable supervision is required to erect scaffolding.
- Scaffolds are to be designed to support at least 4 times the load that is intended to be placed on the structure.
- All planking is to be Scaffold Grade. (Refer to the OSHA Standard 1910.28 for the specific dimensions and loads of the planks).
- Planks are to extend at least 6 inches and not more than 18 inches beyond the support and be cleated.
- Planks are to be secured from movement and/or overlapped at least 12 inches.
- Scaffolding will be provided with toe boards, mid-rails and handrails where used for work over 10 feet off the ground.
- Keep tools in a bucket or box lashed to the scaffolding. Tools left on top of the scaffolding can easily fall to the ground and injure passersby.

Street and Sidewalk Work Zone Safety

Whenever operations are taking place in streets, parkways, sidewalks or other places where citizens as well as employees may be present, the _____ *(Responsible Individual)* on the worksite is responsible for the safety of the public and employees.

Street and sidewalk repair activities can make employees vulnerable to injury/accidents and the municipality susceptible to liability claims. Hazards such as open trenches, spoil piles, equipment and structures in or on normal traffic routes can result in injuries and/or property damage. All street/lane closure and repair actions are to be preplanned and coordinated with appropriate agencies. To promote driver and pedestrian understanding, only standardized control devices (signs, lights, barricades and delineators) should be used.

These procedures are designed to provide safe, effective work areas for street repair and to warn, protect, control and expedite vehicular and pedestrian traffic flow.

The following procedures are to be followed:

- No work will be performed in any public right-of-way without authorization and the use of traffic control devices.
- Preparations will be made to assure vehicle and pedestrian safety before such work is allowed to begin.
- If traffic is affected by the operation, proper signage must be used to warn in advance of the work area. Traffic control signs in and around the affected area are to be correctly placed and maintained through the period when work is being performed and traffic obstructions exist.
- Where barricades and signs are used overnight, supervisors will examine the work area for proper placement at the end of the workday.
- Lighted barricades will be used whenever possible for overnight protection.
- A Flagger wearing a protective vest will be stationed where traffic must be periodically stopped or obstructed by workers or equipment in the traveled portion of a roadway.
- Flaggers will be used to slow or direct traffic where the approach to the work area does not provide adequate visibility to drivers.
- All workers in or near the roadway will wear reflective vests while on the worksite.
- Assistance in setting up signage or barricading will be provided by _____ *(Responsible Individual)* who is familiar with NYDOT Highway Work Zone Safety requirements. This individual will work in cooperation with the Police Department.

cooperation with the Police Department.

- All plates used to cover holes in the street on a temporary basis are to be done in accordance with NYDOT design and installation standards.
- In any case where streets are significantly obstructed or closed for extended periods of time, the police department and fire department will be notified of the situation and told approximately how long the closure will be in effect.
- Routine maintenance on arterial streets will be scheduled to minimize traffic interference, i.e., other than at 7:00-9:00 a.m. and 3:30-6:00 p.m., the normal "rush hours".
- Consult the NYDOT standards for worksite planning, design and operation.

Sun Safety

The "New York State Public Employee Sun Safety Law" requires New York State public employers to provide sun safety information to employees who spend more than a total of 5 hours per week outdoors.

The following information has been provided to employees who work outside:

- The potential dangers of diseases caused by over-exposure of the sun, such as skin cancer;
- The existence of available sun exposure protections and their proper uses, and
- Other information necessary to afford an employee their best opportunity to protect themselves from the sun.

Note: *See Appendix T for more information on Sun Safety.*

Tire Changing – Single and Multi-Piece Rim Wheels

Employees working in the vehicle maintenance garage may have responsibility for changing tires and mounting them on rims. There are specific guidelines for the safe servicing of tire rim wheels used on large trucks, trailers, buses, and off-road machines.

The safety requirements for the servicing of single-piece and multi-piece rim wheels include the following:

- Training for all tire servicing employees;
- Following the equipment manufacturers instructions and use of industry-accepted procedures that minimize the potential for employee injury;
- Use of proper equipment such as clip-on chucks, restraining devices or barriers to retain the wheel components in the event of an incident during the inflation of tires; and
- Use of compatible components.

Note: *In Appendix U there is a fact sheet that provides more guidance on the safety considerations when changing tires and/or working with single and multi-piece rim wheels*.

Tree Hazards

It is not uncommon for our municipality to have multiple incidents from tree damage following storms. High winds, soft ground, freezing rain and heavy snow increase the potential that a tree or branches will fall. Injury and damage from trees is often associated with the following:

- Falling onto and injuring employees and the general public.
- Structural damage to windows, walls and roofs of buildings.
- Ponding on roofs or building leaks caused by roof drains clogged by tree leaves/debris.
- Damage to rooftop equipment.
- Undermining the foundations of buildings.
- Upheaval of streets, driveways and sidewalks resulting in tripping hazards.
- Pulling down of electrical lines, which disrupt power distribution and possible electric contact accidents.
- Landing on vehicles or other outdoor equipment (i.e. fencing, bleachers, and playgrounds).
- Clogging of sewer and water system piping.

All employees are encouraged to report conditions that could present a tree hazard risk to the employees, general public and to nearby properties to _____ *(Name of Responsible Individual or Department)*. In addition to our own employees working around tree hazards, tree care professionals and local utility companies are also included as partners when caring for the municipal landscaping. Ongoing evaluations of tree health can be beneficial, especially in high public use locations and areas located close to buildings, roads and parking so that trees conditions can be addressed proactively.

Vehicle Mounted Buckets and Platforms

- Only employees who have been trained in the use of the vehicle mounted buckets and platforms are allowed to operate the equipment.
- All buckets and associated equipment are to be inspected and tested for operability prior to use.
- All vehicle mounted equipment is to be used in accordance with the manufacturer's instructions.
- All employees are to wear fall protection including a harness and lanyard tied off securely to the equipment structure when working in the elevated position.
- All overhead hazards including electrical lines are to be identified prior to the work and the job is to be planned so that work is far enough away to prevent contact with the overhead hazards.
- The vehicle is to be positioned on secure ground and all outriggers extended to provide a stable base prior to operating the bucket.
- Emergency communication is to be available at the work site to summon assistance as needed.
- The area underlying the platform is to be cordoned off to warn others not to walk below the work zone.

Ventilation

Some of the work activities we perform generate dusts, mists, fumes and vapors. Examples of work activities include welding, cutting concrete, spray painting, grinding and running vehicles in the garage. To reduce the concentration of these contaminants, in some instances ventilation can be provided to capture and remove or dilute the airborne contaminant.

Each work area and task is evaluated to determine if the potential for airborne contaminants may present a health exposure. Local exhaust ventilation can be provided at certain tasks or locations and in other areas general dilution ventilation can help to reduce the overall work area concentrations. These ventilation systems are inspected and maintained in accordance with the manufacturer's instructions so that they can reduce the concentrations of contaminants in the employees breathing zone.

Some examples of ventilation that we maintain include:
(Insert specific examples below and a few are provided for you as examples).

- Local ventilation trunk lines attached to vehicles as they are run in the garage.
- Flexible ductwork with exhaust flanges positioned close to the welding strike

zone.
- Limiting spray paint use to inside a booth that is designed to capture and exhaust the overspray and vapors.
- Ceiling exhaust fans in the garage to remove heat, dust and smoke from general work activities.
- High-volume exhaust air flow that can be turned on in the chlorine cylinder storage area prior to entry.

Welding, Cutting and Brazing

Only employees who have been trained in welding and the related health and safety guidelines are allowed to perform welding, cutting and brazing tasks. Health hazards from welding, cutting, and brazing operations include exposures to metal fumes and to ultraviolet (UV) radiation. Safety hazards from these operations include burns, eye damage, electrical shock, fires, explosions, cuts, and crushed toes and fingers. Many of these can be controlled with proper work practices and personal protective equipment (PPE).

Safety and health precautions and operational procedures are described in Appendix V entitled “Welding, Cutting and Brazing Safety and Health Guidelines”.

Winter Weather Work

Prolonged exposure to freezing or cold temperatures may cause serious health problems such as trench foot, frostbite and hypothermia. In extreme cases, including cold water immersion, exposure could lead to death. Municipal employees and volunteers including, firefighters, EMS workers, police officers, road crews and sewerage staff could spend prolonged periods in weather extremes and it’s important to take proactive steps to stay safe while completing assigned tasks.

To protect you from hypothermia the following cold weather tips are provided:

- Recognize the environmental and workplace conditions that may be dangerous.
- Learn the signs and symptoms of cold-induced illnesses and injuries.
- Wear proper clothing for cold, wet and windy conditions, including layers that can be adjusted to changing conditions.
- Pay special attention to protecting feet, hands, face and head. Up to 40 percent of body heat can be lost when the head is exposed.
- Insulate footgear to protect against cold and dampness.
- Keep a change of clothing available in case work garments become wet.

- Take frequent short breaks in warm dry shelters to allow body temperature to increase when working in extreme conditions.
- Avoid exhaustion or fatigue because energy is needed to keep muscles warm.
- Use the buddy system - work in pairs so that one worker can recognize danger signs.
- Remain hydrated. Drink warm, sweet beverages and avoid drinks with caffeine (coffee, tea, sodas or hot chocolate) or alcohol.
- Eat warm, high-calorie foods such as hot pasta dishes.
- If not an emergency situation, try to schedule work for the warmest part of the day.

Workplace Violence Prevention Policy and Program

Note: *In New York State a written program is required if there are 20 or more employees. This does not apply to volunteer fire departments that are not a part of a city or village. Post this policy and program in the work area where notices are typically posted.*

Workplace Violence Prevention Policy

_____ *(Municipality Name)* is committed to the safety and security of our employees. Workplace violence presents a serious occupational safety hazard to our employees, and the general public who use municipal facilities. Threats, threatening behavior, or acts of violence against _____ *(Municipality name)* employees where any work related duty is performed will be thoroughly investigated and appropriate action will be taken, including summoning criminal justice authorities when warranted.

All employees are responsible for helping to create an environment of mutual respect for each other as well as the general public, following all policies, procedures and program requirements, and for assisting in maintaining a safe and secure work environment.

For more information on the _____ *(Municipal Entity Name)*, and a copy of the policy please contact _____ *(Department Name)*.

Note: *A model Workplace Violence Prevention Program is included in Appendix W. This should be customized to meet the exposures and management systems that exist in your municipality.*

APPENDICES

Appendix A: Incident Investigation

Incident Investigation

Name	*Company*	*Time*	*Date*

Department – Shift	*Job*	*How long on job?*

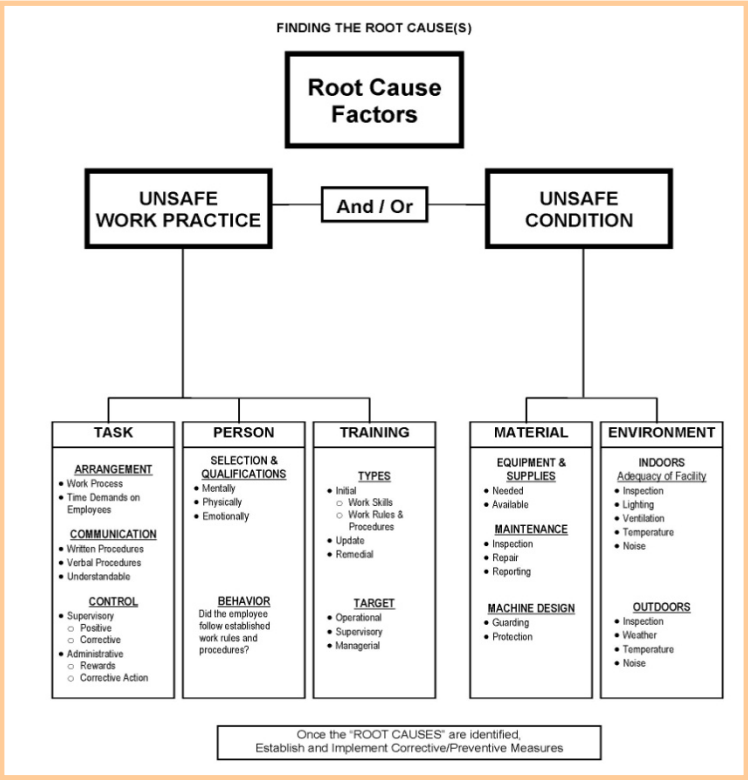
What was the employee doing?
Describe the activity, equipment, materials, people and environmental conditions involved in the incident.

What happened?
Indicate in detail what took place. Describe the Incident, the type of injury, whether the employee was wearing appropriate safety equipment, etc.

What caused the incident?
Explain in detail the condition, act, malfunction, etc.—or combination of factors—that is the incident.

What caused the incident?

Use this flow chart to help isolate the conditions responsible for the incident.



Corrective action recommended:

_____

_____

Investigated by *Date*

_____

Reviewed by *Date*

Appendix B: Asbestos Notification NY DOL

New York State Department of Labor

Dear Sir or Madam:

I would like to take this opportunity to offer you some useful information about the asbestos exposure associated with the demolition/renovation of buildings in your locality. A copy and updates to Part 56 of Title 12 of the Official Compilation of Codes, Rules and Regulations of the State of New York (Cited as 12 NYCRR Part 56), a Guidance Document with frequently asked questions and answers, and variance information may be obtained by going on-line to, www.labor.ny.gov/workerprotection/safetyhealth/dosh_asbestos.shtm.

I wish to request your assistance in our enforcement efforts thereby protecting the health of your community, specifically in the area of building demolition/renovations. Please feel free to incorporate the enclosed: **BUILDING DEMOLITION/RENOVATION and NOTICE TO BUILDING PERMIT APPLICANTS** with the information you provided to contractors when a demolition/renovation permit is issued.

Should you have any questions, please contact the Asbestos Control Bureau District Office nearest to you (listed on the enclosed sheet).

W. Averell Harriman State Office
Campus Building 12, Room 157,
Albany, NY 12240
www.labor.ny.gov

Contact Information for Asbestos Projects

New York State Department of Labor

CONTACT INFORMATION FOR ASBESTOS PROJECTS

The Department of Labor regulates asbestos abatement activities in the State through its Asbestos Control Bureau; all contractors must be licensed and all asbestos handlers certified by the Department's License and Certificate Unit. Projects must be conducted in accordance with safety standards promulgated by the Commissioner of Labor to avoid potential public health hazards that can result from the improper handling of asbestos or asbestos containing material, a potential carcinogen. A copy and update to Parte 56 of Title 12 of the Official Compilation of Codes, Rules and Regulations of the State of New York (Cited as 12 NYCRR Part 56), a Guidance Document with frequently asked questions and answers, and variance information may be obtained by going online to: http://labor.ny.gov/workerprotection/safetyhealth/DOSH_ASBESTOS.shtm

For more information, call or write the New York State Department of Labor, Division of Safety and Health at one of the following locations:

ASBESTOS CONTROL BUREAU DISTRICT OFFICES

ALBANY
State Office Campus
Building 12, Room 157
Albany, NY 12240
Tel: (518) 457-2735

BUFFALO
65 Court Street
Room 405
Buffalo, NY 14202
Tel: (716) 847-7126

Syracuse
450 South Salina St.
2nd Floor – Room 202
Syracuse, NY 13202
Tel: (315) 479-3215

New York City
75 Varick St.
7th Floor
New York, NY 10013-1917
Tel: (212) 775-3538

TO SUBMIT ASBESTOS PROJECT NOTIFICATION AND/OR EMERGENCY NOTIFICATION

Asbestos project notifications may be submitted on-line by licensed asbestos contractors by going to: http://www.labor.ny.gov and click on Businesses and then Asbestos Notifications under Online Services. Emergency notifications must be either submitted by email to asbestosnotification@labor.ny.gov or faxed to (518) 485-8530. After the emergency notification has been approved, the contractor must complete the on-line notification and pay the notification fee. You may also mail in your paperwork to: NYS Department of Labor, State Office Campus, Building 12, Room 161, Albany, NY 12240, Tel: (518) 457-2735.

Questions about obtaining and/or renewing an Asbestos licenses or any type of Asbestos Certification may also be obtained from the Department of Labor, DOSH, License & Certificates.

Asbestos Exposure with Building Demolition/Renovation

New York State Department of Labor

Building Demolition/Renovation

Industrial Code Rule 56 established work practice, asbestos contractor license, and asbestos worker training and certification requirements that protect the public from cancer causing airborne asbestos fiber that can arise from various construction activities, including the demolition/renovation of a building. One very important aspect of the Code covers requirements that specifically address the potential public health hazards associated with the significant amount of airborne asbestos fiber that can be released during the demolition/renovation of a building that contains asbestos or asbestos-containing materials.

New York State Labor Law (Article 10, Section 241section 241.10) and the Code require a survey of the impacted portion of the building to identify the presence of asbestos prior to advertising for bids or contracting for or commencing work on any demolition/renovation work on a building. **The Code requires that this survey must be sent to the local government unit responsible for issuing the demolition/renovation permit. Note that only copies of the demolition or pre- demolition survey must be sent to the Department of Labor, Asbestos Control Bureau.** Also, prior to commencement of demolition/renovation work, the impacted asbestos identified in the survey must be removed in compliance with the Code. Your assistance, as specified below, would facilitate our enforcement efforts and help avoid the necessity of citing building owners who violate the statute and code:

- Share this information with the individuals on your staff responsible for issuing demolition/renovation permits. Encourage your staff to contact the appropriate District Office of the Asbestos Control Bureau on the enclosed list should any asbestos issues arise, specifically those related to demolition/renovation.

- Consider establishing a policy of not issuing a demolition/renovation permit until compliance with Industrial Code Rule 56 is achieved.

- Call the appropriate District Office of the Asbestos Control Bureau when a demolition/renovation permit is issued to a contractor that has **failed** to provide a survey or has **not removed** the identified asbestos. Any cooperation you can provide will not only assist in our enforcement efforts but protect the health of your community.

W. Averell Harriman State Office Campus
Building 12, Room 157, Albany, NY 12240
www.labor.ny.gov

Notice to Building Permit Applicants

New York State Department of Labor

NOTICE TO BUILDING PERMIT APPLICANTS

An asbestos survey is required for all renovation, remodeling, repair and demolition of all interior and exterior building materials. As per NYS Industrial Code Rule 56, asbestos material must be abated by licensed contractors utilizing certified asbestos handlers, with the exception of owner-occupied single family homes, where the owner may remove the asbestos.

However, it is not recommended that the owner remove asbestos. The owner could potentially expose themselves, their family and neighbors to asbestos fibers if correct engineering controls and work methods are not utilized during the abatement.

For further information and updates, please see the NYS website at: www.labor.ny.gov.

W. Averell Harriman State Office Campus
Building 12, Room 157, Albany, NY 12240
www.labor.ny.gov

Appendix C: Bloodborne Pathogens Model Exposure Control Plan

Program Administration

- _____ (*Name of responsible person or department*) is (are) responsible for implementation of the Exposure Control Plan (ECP) _____ *(Name of responsible person or department)* will maintain, review, and update the ECP at least annually, and whenever necessary to include new or modified tasks and procedures. More information can be obtained from *(Insert Contact location/phone number)*: _____.

- Those employees who are determined to have occupational exposure to blood or other potentially infectious materials (OPIM) are to follow the procedures and work practices outlined in this ECP.

- _____ *(Name of responsible person or department)* provides and maintains all necessary personal protective equipment (PPE), engineering controls (e.g., sharps containers), labels, and red bags. _____ *(Name of responsible person or department)* will stock adequate supplies of the equipment so it is available in the appropriate sizes. *(Insert contact location/phone number: _____.)*

- _____ *(Name of responsible person or department)* will be responsible for overseeing that all medical actions required by the standard are performed and that appropriate employee health and NYPESH/OSHA records are maintained. *(Insert contact location/phone number*: _____.)

- _____ *(Name of responsible person or department)* will be responsible for training, documentation of training, and making the written ECP available to employees, NYPESH, OSHA, and NIOSH representatives. *(Insert contact location/phone number:* _____).

Employee Exposure Determination

The following is a list of all job classifications in which employees may have

occupational exposure:

Job Title	*Department/Location*
(Example: Ambulance Crew)	*(EMS)*

(use as many lines as necessary)

The following is a list of job classifications in which some employees may have occupational exposure. Included is a list of tasks and procedures, or groups of closely related tasks and procedures, in which occupational exposure may occur for these individuals:

Job Title	*Department/Location*	*Task/Procedure*

Example:
Ambulance Crew/Onsite at Residence/Clearing Airway (use as many lines as necessary)

Note: *Part-time, temporary, contract and per diem employees are covered by the Bloodborne pathogens standard. The ECP should describe how the standard will be met for these employees.*

Methods of Implementation and Control

All employees will utilize universal precautions.

Exposure Control Plan

Employees covered by the Bloodborne pathogens standard receive an explanation of this ECP during their initial training session. It will also be reviewed in their annual refresher training. All employees can review this plan at any time during their work shifts by contacting _____ *(Name of responsible person or department)*. If requested, we will provide an employee with a copy of the ECP free of charge and within 15 days of the request.

_____ *(Name of responsible person or department)*

is responsible for reviewing and updating the ECP annually or more frequently if necessary to reflect any new or modified tasks and procedures that affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

Engineering Controls and Work Practices

Engineering controls and work practice controls will be used to prevent or minimize exposure to bloodborne pathogens. The specific engineering controls and work practice controls used are listed below *(For example: Use of gloves, safety eyewear and respiratory protection)*:

Sharps disposal containers are inspected and maintained or replaced by _____ *(Name of responsible person or department)* every _____ *(list frequency)* or whenever necessary to prevent overfilling.

The municipal departments covered by this ECP identify the need for changes in engineering controls and work practices through _____ *(Examples: EMS de- briefs, employee interviews, safety committee accident reviews, etc.)*

We evaluate new procedures and new products regularly by _____ *(Describe the process, literature reviewed, supplier info, products considered)*

Both front-line workers and management officials are involved in this process in the following manner _____ *(Describe employees' involvement)*.

_____ *(Name of responsible person or department)* is responsible for ensuring that these recommendations are implemented.

Personal Protective Equipment (PPE)

PPE is provided to our employees at no cost to them. Training in the use of the appropriate PPE for specific tasks or procedures is provided by _____ *(Name of responsible person or department)*.

The types of PPE available to employees are as follows *(gloves, eye protection, etc.)*: _____.

PPE is located at _____ (*List location*) and may be obtained through _____ *(Name of responsible person or department, and specify how employees will obtain PPE and who is responsible for ensuring that PPE is available.)*

All employees using PPE must observe the following precautions:

- Wash hands immediately or as soon as feasible after removing gloves or other PPE.
- Remove PPE after it becomes contaminated and before leaving the work area.
- Used PPE may be disposed of in _____ *(List appropriate containers for storage, laundering, decontamination, or disposal.)*
- Wear appropriate gloves when it is reasonably anticipated that there may be hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces; replace gloves if torn, punctured or contaminated, or if their ability to function as a barrier is compromised.
- Utility gloves may be decontaminated for reuse if their integrity is not compromised; discard utility gloves if they show signs of cracking, peeling, tearing, puncturing, or deterioration.
- Never wash or decontaminate disposable gloves for reuse.
- Wear appropriate face and eye protection when splashes, sprays, spatters, or droplets of blood or OPIM pose a hazard to the eye, nose, or mouth.
- Remove immediately or as soon as feasible any garment contaminated by blood or OPIM, in such a way as to avoid contact with the outer surface.

The procedure for handling used PPE is as follows:

_____

(Refer to specific procedure and include how and where to decontaminate face shields, eye protection, resuscitation equipment).

Housekeeping

Regulated waste is placed in containers which are closable, constructed to contain all contents and prevent leakage, appropriately labeled or color-coded (see the following section "Labels"), and closed prior to removal to prevent spillage or protrusion of contents during handling.

The procedure for handling sharps disposal containers is:

_____

(Insert guidance here)

The procedure for handling other regulated waste is:

_____

(Insert guidance here)

Contaminated sharps are discarded immediately or as soon as possible in containers that are closable, puncture-resistant, leak proof on sides and bottoms, and appropriately labeled or color-coded. Sharps disposal containers are available at _____ (*these must be easily accessible and as close as feasible to the immediate area where sharps are used).*

Bins and pails (e.g., wash or emesis basins) are cleaned and decontaminated as soon as feasible after visible contamination.

Broken glassware that may be contaminated is only picked up using mechanical means, such as a brush and dustpan.

Laundry

Laundering will be performed by _____ *(Name of responsible person, or department, or contractor)* at _____ *(time and/or location)*.

The following laundering procedures are used:

1. Handle contaminated laundry as little as possible, with minimal agitation.
2. Place wet, contaminated laundry in leak-proof, labeled or color-coded containers before transport. Use *(specify either red bags or bags marked with the biohazard symbol)* for this purpose.
3. Wear the following PPE when handling and/or sorting contaminated laundry *(List appropriate PPE below)*:

_____

_____

Labels

The following labeling methods are used:

Equipment to be labeled: _____

Label Includes: _____

(Insert here examples: specimens, contaminated laundry, etc. with red bag, biohazard label)

_____ *(Name of responsible person or department)* is responsible for ensuring that warning labels are affixed or red bags are used as required if regulated waste or contaminated equipment is brought into the facility.

Employees are to notify _____ *(Name of responsible person or department)* if they discover regulated waste containers, refrigerators containing blood or OPIM, contaminated equipment, etc., without proper labels.

Hepatitis B Vaccination

_____ *(Name of responsible person or department)* provides training to employees on hepatitis B vaccinations, addressing safety, benefits, efficacy, methods of administration, and availability.

The hepatitis B vaccination series is available at no cost after initial employee training and within 10 days of initial assignment to all employees identified in the exposure determination section of this plan.

Vaccination is encouraged unless:

- documentation exists that the employee has previously received the series;
- antibody testing reveals that the employee is immune; or
- medical evaluation shows that vaccination is contraindicated.

However, if an employee declines the vaccination, the employee must sign a declination form. Employees who decline may request and obtain the vaccination at a later date at no cost. Documentation of refusal of the vaccination is kept at _____ *(List location)*.

Vaccination will be provided by _____ *(List health care professional responsible for this part of the plan)* at _____ *(location)*.

Following the medical evaluation, a copy of the health care professional's written opinion will be obtained and provided to the employee within 15 days of the completion of the evaluation. It will be limited to whether the employee requires the hepatitis vaccine and whether the vaccine was administered.

Post-Exposure Evaluation and Follow-Up

Should an exposure incident occur, contact _____ *(Name of Responsible Person)* at the following number: _____.

An immediately available confidential medical evaluation and follow-up will be conducted by _____ *(name of licensed health care professional)*.

Following initial first aid (clean the wound, flush eyes or other mucous membrane, etc.), the following activities will be performed:

- Document the routes of exposure and how the exposure occurred.
- Identify and document the source individual (unless the employer can establish that identification is infeasible or prohibited by state or local law).
- Obtain consent and make arrangements to have the source individual tested as soon as possible to determine HIV, HCV, and HBV infectivity; document that the source individual's test results were conveyed to the employee's health care provider.
- If the source individual is already known to be HIV, HCV and/or HBV positive, new testing need not be performed.
- Assure that the exposed employee is provided with the source individual's test results and with information about applicable disclosure laws and regulations concerning the identity and infectious status of the source individual (e.g. laws protecting confidentiality).
- After obtaining consent, collect exposed employee's blood as soon as feasible after exposure incident, and test blood for HBV and HIV serological status
- If the employee does not give consent for HIV serological testing during collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days; if the exposed employee elects to have the baseline sample tested during this waiting period, perform testing as soon as feasible.

Administration of Post-Exposure Evaluation and Follow-Up

_____ *(Name of responsible person or department)* ensures that health care professional(s) responsible for employee's hepatitis B vaccination and post- exposure evaluation and follow-up are given a copy of OSHA's Bloodborne pathogens standard.

_____ *(Name of responsible person or department)* ensures that the health care professional evaluating an employee after an exposure incident receives the following:

- a description of the employee's job duties relevant to the exposure incident
- route(s) of exposure
- circumstances of exposure
- if possible, results of the source individual's blood test
- relevant employee medical records, including vaccination status

_____ *(Name of responsible person or department)* provides the employee with a copy of the evaluating health care professional's written opinion within 15 days after completion of the evaluation.

Procedures for Evaluating Circumstances Surrounding an Exposure

_____ *(Name of responsible person or department)* will review the circumstances of all exposure incidents to determine:

1) engineering controls in use at the time
2) work practices followed
3) a description of the device being used (including type and brand)
4) protective equipment or clothing that was used at the time of the exposure incident (gloves, eye shields, etc.)
5) location of the incident (O.R., E.R., patient room, etc.)
6) procedure being performed when the incident occurred
7) employee's training

_____ *(Name of Responsible Person)* will record all percutaneous injuries from contaminated sharps in a Sharps Injury Log. If revisions to this ECP are necessary, _____ *(Responsible person or department)* will ensure that appropriate changes are made. *(Changes may include an evaluation of safer devices, adding employees to the exposure determination list, etc.)*

Employee Training

All employees who have the potential for occupational exposure to Bloodborne pathogens receive initial and annual training conducted by _____ *(Name of responsible person or department)*. *(Attach a brief description of their qualifications.)*

All employees who have occupational exposure to Bloodborne pathogens receive training on the epidemiology, symptoms, and transmission of Bloodborne pathogen diseases. In addition, the training program covers, at a minimum, the following elements:

- a copy and explanation of the OSHA Bloodborne pathogen standard
- an explanation of our ECP and how to obtain a copy
- an explanation of methods to recognize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident
- an explanation of the use and limitations of engineering controls, work practices, and PPE
- an explanation of the types, uses, location, removal, handling, decontamination, and disposal of PPE
- an explanation of the basis for PPE selection
- information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine will be offered free of charge
- information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM
- an explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available
- information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident
- an explanation of the signs and labels and/or color coding required by the standard and used at this facility
- an opportunity for interactive questions and answers with the person conducting the training session.

Training materials are available at _____ *(name location)*.

Recordkeeping

Training records are maintained for each employee upon completion of training. These documents are kept for at least three years at _____ *(Location of records)*.

The training records include:

- the dates of the training sessions
- the contents or a summary of the training sessions
- the names and qualifications of persons conducting the training
- the names and job titles of all persons attending the training sessions

Employee training records are provided upon request to the employee or the employee's authorized representative within 15 working days. Such requests should be addressed to _____ *(Name of responsible person or department)*.

Medical Records

Medical records are maintained for each employee with occupational exposure in accordance with 29 *CFR* 1910.1020, "Access to Employee Exposure and Medical Records."

_____ *(Name of responsible person or department)* is responsible for maintenance of the required medical records. These confidential records are kept in _____ *(List location)* for at least the duration of employment plus 30 years.

Employee medical records are provided upon request of the employee or to anyone having written consent of the employee within 15 working days. Such requests should be sent to _____ *(Name of responsible person or department and address).*

OSHA Recordkeeping

An exposure incident is evaluated to determine if the case meets OSHA's Recordkeeping Requirements (29 CFR 1904). This determination and the recording activities are done by _____ *(Name of responsible person or department)*.

Sharps Injury Log

In addition to the 1904 Recordkeeping Requirements, all percutaneous injuries from contaminated sharps are also recorded in a Sharps Injury Log. All incidences must include at least:

- date of the injury
- type and brand of the device involved (syringe, suture needle)
- department or work area where the incident occurred
- explanation of how the incident occurred.

This log is reviewed as part of the annual program evaluation and maintained for at least five years following the end of the calendar year covered. If a copy is requested by anyone, it must have any personal identifiers removed from the report.

Hepatitis B Vaccine Declination (Mandatory)

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Signed: _____ Date: _____

Appendix D: Confined Spaces

Confined Space Sample Entry Program

Date: _____
Revised: _____

CONFINED SPACE ENTRY PROGRAM
SAMPLE – SEWER SYSTEMS

Introduction

During the course of work activities, employees of the _____ *(Municipal Entity Name or Department)* occasionally are required to enter into confined spaces. The purpose of this Confined Space Entry program is to inform these employees of the potential hazards associated with such entry. Some examples of confined spaces within the _____ *(Municipal Entity Name or Department)* include:

(Use the "Classifying Confined Spaces" chart in the Appendix as guide, insert below the types of spaces that employees may encounter based on observations of the site specific work areas. For example, wet wells, sewer manholes, valve pits.)

-
-
-
-

Typically, a confined space is more than four feet in depth and air movement (circulation) is poor. The _____ *(Insert Job Title)* oversees all confined space entries to review the specific hazards, provide guidance to employees, and assure the appropriate equipment is available for a confined space entry.

Confined Space Classification

Sewer and Manhole entry differs in from other permit entries. First, there is rarely a way to completely isolate the space to be entered. Second, because isolation is not complete, the atmosphere may suddenly and unpredictably become lethally hazardous

(toxic, flammable or explosive) from causes beyond the control of the Entrant or the _____ *(Municipal Entity or Department Name)*. Unlike other employers where permit space entry is a rare and exceptional event, our employees frequently enter work environments that are permit required confined spaces.

Non-permit Required Confined Spaces

To determine if a space is considered "confined," and requires a permit for entry, use the attached flow chart entitled "Classifying Confined Spaces."

A space is considered "confined", but a permit is not required if the area is defined as:

- Any space that is not ordinarily inhabited by people and is large enough for an individual to enter;
- A space that has limited or restricted entry or egress, and
- The space is not designed for continuous human occupancy.

Permit-Required Confined Spaces

A permit is required if the above conditions exist and the space also has the following hazards:

- The area contains, or has a known potential to contain, a hazardous atmosphere.
- The area contains a material substance with the potential to engulf an Entrant.
- The area has an internal configuration such that an Entrant could be trapped by inwardly conveying walls or by a floor that slopes downward and tapers to a smaller cross-section.
- The area contains any other recognized serious safety or health hazard.

Examples of Permit-Required Confined Spaces include *(Insert the site specific examples below based on the survey of all spaces)*:

-
-

Typically, the space is an open-topped, tank-like compartment, usually with only a manhole for entry, is more than 4 feet in depth, has poor air movement, and the potential for other hazards.

Hazards Involved Within Confined Spaces

Common types of fatal, confined space accidents include the following:

- Atmospheric Hazards
- Fires or explosions
- Caught/crushed
- Struck by falling objects
- Electrical shock

Some common hazards related to the confined spaces on the _____ *(Location name)* property include *(Insert the site specific hazards below based on the survey. Some examples are noted below for your reference)*:

- Being flooded or engulfed with groundwater and/or sewer water.
- Presence of toxic gases from wastewater
- Presence of methane or other explosive/flammable gases. Equal to or greater than 10% of the lower flammable limit (LFL).
- Oxygen Deficiency. A concentration of oxygen in the atmosphere equal to or less than 19.5% by volume. Oxygen is typically present in air at a concentration of 21 percent. In the event of an oxygen deficiency the following symptoms can be expected:

    - 16% – Dizziness (flu-like symptoms), faulty judgment, rapid fatigue
        - 15% – Noticeable lessening of muscular control
        - 12% – Permanent brain damage
        - 10% – Paralysis
    - 7% – Unconsciousness
        - 6% – Death within minutes: Spasmodic breathing, convulsions, and rapid death

Potential Explosion Hazards from Common Wastewater	
Component	**Potential to Pose an Explosion Hazard**
Methane	Methane is highly explosive when mixed with air at a volume between its LEL of 5% and its UEL of 15%. At concentrations below 5% and above 15%, methane is not explosive. In wet wells, and digesters methane can be produced at sufficient quantities to collect in the nearby structures at explosive levels.
Carbon dioxide	Carbon dioxide is not flammable or explosive.
Oxygen	Oxygen is not flammable, but is necessary to support explosions.
Ammonia	Ammonia is flammable. Its LEL is 15% and its UEL is 28%. However, ammonia is unlikely to collect at a concentration high enough to pose an explosion hazard.
Non-methane Organic Compounds	Potential explosion hazards vary by chemical. For example, the LEL of benzene is 1.2% and its UEL is 7.8%. However, benzene and other NMOCs alone are unlikely to collect at concentrations high enough to pose explosion hazards.
Hydrogen sulfide	Hydrogen sulfide is flammable. Its LEL is 4% and its UEL is 44%.

Physical Hazards

The following are some of the physical hazards that can be encountered in the confined spaces on the municipal properties that can present a hazard to our employees:

- Broken ladder rungs.
- Moving parts.
- Live electric lines.
- Entry of gases into the confined space while it is occupied (methane, volatile organic compounds, carbon dioxide, hydrogen sulfide and various other gases)
- Structural failure of the confined space.
- Restrictive work space.
- Improper lighting.
- Congestion at the job site, particularly in the area of the confined space opening can be caused by monitoring equipment and large quantities of life support equipment, breathing-air systems, and/or additional manpower that may be required in and near the work area.

- Cold stress.

Permit-Required Confined Space Entry Requirements

In cases where employees plan to enter a Permit-Required Confined Space and no historical documentation of the conditions inside exists, the following is required:

- Post the area: **DANGER PERMIT-REQUIRED CONFINED SPACE. DO NOT ENTER.**
- Eliminate pressure buildup before entry cover is removed.
- Guard opening to the entrance with a railing or other barrier.
- Review procedures necessary for safe entry with team.
- Verify using gas monitoring instrument that is set to alarm if the atmospheric concentrations are outside the following ranges:
  - ✓ Oxygen: 19.5 to 23.5 percent
  - ✓ Flammable Gas/Vapor: 10 percent of LEL (including methane0
  - ✓ Carbon Dioxide: below 0.5%
  - ✓ Toxicity (Hydrogen Sulfide): below10 ppm
- Verify that other conditions such as electrical supply, active pipe line, etc., have been locked out or otherwise controlled.
- Ventilate the space to control atmospheric hazards.
- Provide the following equipment:
  - ✓ Direct reading gas monitor
  - ✓ Ventilators
  - ✓ Communications (if verbal contact cannot be maintained).
  - ✓ Personal protective equipment including hard hats, gloves, safety shoes, and coveralls
  - ✓ Intrinsically safe lighting
  - ✓ Ladders, if needed
  - ✓ Harness, lifeline and winch or pulley
  - ✓ Other equipment depending on the site specific hazards
- Have Attendant continually monitor the atmospheric conditions during entry.
- Station at least one Attendant outside of the space for the entire duration of the entry whose sole responsibility is to act as the Entry Supervisor, monitor activities within the space, and prevent entry by unauthorized persons.
- Plan in advance procedures for summoning rescue and emergency services.
- Complete the permit (Attachment A) prior to entry and post at the entry portal.

If for any reason the procedures and operations used at a site are judged to be inadequate

by the team and the attending Entry Supervisor, the attending Entry Supervisor has the authority and responsibility to cancel the permit and revise the program to correct deficiencies.

In cases where employees have previously entered a space and there is a documented history that the only hazard is atmospheric and that forced air ventilation has sufficiently maintained the atmospheric concentrations within acceptable ranges, the following requirements apply:

- Calibrate all monitoring instruments prior to entry, and document calibration on the permit.
- Before entry, the atmosphere must be tested and readings must fall within the following ranges:
  - ✓ Oxygen: 19.5 to 23.5 percent
  - ✓ Flammable Gas/Vapor: below 10 percent of LEL (including methane)
  - ✓ Carbon Dioxide: below 0.5%
  - ✓ Toxicity (Hydrogen Sulfide): below 10 ppm
- There may not be any hazardous atmosphere within the space.
- Continuous forced air ventilation of the immediate work area must be provided from a clean source. The portable blower and tubing should be inserted into the space and run for a few minutes to ventilate the space. Where possible, open additional manholes to increase air circulation. After a few minutes of ventilating, repeat the testing. Entry may not begin until testing has demonstrated that the hazardous atmosphere has been eliminated, and is stable.
- During entry, the atmosphere must be regularly tested to assure that the readings stay within the recommended ranges.
  - ✓ If any of the airborne readings fall outside of the range, the following actions must be taken:
    - Leave the space immediately.
    - Re-evaluate the atmosphere from outside the space.
    - Implement additional measures to assure that a hazardous atmosphere will not develop prior to re-entry.
    - Prepare a written certification indicating the date, location of space, atmospheric readings, and signature of certifying person prior to re-entry.
    - A new permit must be completed at this time.
- The Entrant must wear a personal monitoring instrument that has alarms set at the same levels.

Surge Flow and Flooding

Verify with the local weather bureau to be aware of the potential for sudden flooding by rain. Also, Entrants should exit the space immediately whenever flammable or other hazardous materials are released into sewers during emergencies.

Rescue and Emergency Services

The _____ *(Municipal Entity or Department Name)* forbids rescue operations that require entering the space. All rescues are to be conducted from outside of the space. *Employees are not allowed to enter a space to perform a rescue since these situations frequently result in the rescuer also becoming injured.* A rescue in a Permit- Required Confined Space requires special training and equipment to assure that the rescuer is capable of succeeding _____ *(Municipal Entity or Department Name)* employees are not trained in this type of rescue. All projects are to be planned so that the proper retrieval equipment (harnesses, lifelines, etc.) is at the site to facilitate a non-entry rescue.

If at any time there is any questionable action or non-movement by the worker inside, a verbal check will be made. If there is no response, the worker will be moved immediately. Exception: If the worker is disabled due to falling or impact, he/she shall not be removed from the confined space unless there is immediate danger to his/her life. Local fire department rescue personnel shall be notified immediately. Safety belt or harness with attached lifeline shall be used by all workers entering the space with the free end of the line secured outside the entry opening. The standby worker shall attempt to remove a disabled worker via his lifeline.

In some cases where the tripod base is too wide to use over elevated manholes or other structures a separate hoist device that is structurally sound such as a hoist arm or reinforced scaffold-type structure must be set up at the site of entry to support the winch and make it feasible for the Attendant to operate a retrieval line.

Program Critique

All confined space permits are to be copied, filed in the _____ *(Name of Department or knowledgeable individual)*. The _____ *(Name of knowledgeable individual)* review the permits annually, or sooner, if deficiencies are noted to identify weaknesses in the program. Changes will be made as needed to update the program and correct noted deficiencies.

Training

All employees involved with confined space work must be trained before being assigned to any confined space project and/or whenever there is a change in policy or equipment. This training is conducted by _____ *(Name of knowledgeable individual)*. The training will involve both classroom and hands-on training. The training program elements are outlined as follows:

- The Confined Space Entry Program
- The Confined Space Entry Permit
- The posting of warning signs
- Calibration and use of air monitoring equipment
- Protocol for air monitoring
- Use of personal protective equipment (supplied air and air-purifying respirators) and dermal protection
- The use of the employee retrieval equipment
- The responsibility of the Attendant as well as the Entrant
- The use of air purging/ventilation equipment
- Hands-on training of all equipment

Training Details

Attendant Responsibility

The Attendant outside the confined space must never leave their post except:

- To contact help services when replaced by a qualified person.
- When the area becomes an immediately dangerous-to-life-and-health situation for the Attendant.

If the Attendant must leave - all Entrants must evacuate the confined space! The Attendant must:

- Never enter the confined space.
- Act as the Entry Supervisor who reviews and approves permits, and is responsible for terminating any entry.
- Complete entry permit.
- Only allow entry by employees who have successfully completed the confined space entry training program.

- Be in constant communication with Entrant(s) by visual, audible, or radio contact.
- Know the quickest way to contact help services prior to any entrance.
- Call for help in case of emergency.
- Recognize signs and symptoms of toxicity or oxygen deficiency to start rescue procedures.
- Continuously monitor the atmosphere at three locations (top-middle-bottom) inside the confined space utilizing air monitoring instrumentation for combustible gas/hydrogen sulfide/oxygen deficiency-enrichment; and, if required other contaminants. All equipment must be calibrated prior to each use.
- Use and ensure the buddy wears the applicable protective equipment such as head, eye, and respiratory protection, gloves, boots, or impervious clothing as required by the nature of the confined space features and atmospheric contaminants.
- Keep a count of all Entrants.
- Monitor activities inside and outside the confined space.
- Guard entrance from internal and external hazards.

Confined Space Entry Permit

The Confined Space Entry Permit must be completed prior to entry by the Attendant/Entry Supervisor. See Attachment A for the permit. The Confined Space Entry Permit will be located near the confined space entry point. It will be readily accessible and visible to all who must enter the confined space and will be in a waterproof pouch.

The purpose of this procedure is to provide the following:

- Designating and identifying a confined space.
- A means of locating the Confined Space Entry Permit near the confined space entry point for review by entering personnel.
- A highly visible reminder to all personnel that work is ongoing in a designated confined space.
- A single place for controlled entry and exit of the confined space.

In order to properly complete a permit, the following elements should be addressed:

- Hazard Identification: The identity and severity of each hazard in the space must be determined and characterized.
- Hazard Control: Procedures and practices that provide for safe entry into the space must be established and implemented.
- Permit System: The written permit must be prepared, issued, and implemented.

When the task is done, the Permit will be sent to the Operations Manager.

- Employee Information: Confined spaces must be posted with signs warning that entry is limited to authorized personnel only.
- Unauthorized Entry Prevention: Precautions, such as the installation of physical barriers (caution tape, posting of signs, and barriers), must be used to prevent unauthorized personnel from entering.
- Employee Training: Employees who enter the confined space, serve as stand-by Attendants, or issue permits, must have completed the confined space entry training program.
- Equipment: Appropriate equipment such as air-sampling instrumentation, communications devices, respirators, and ventilation blowers must be provided, maintained, and used as necessary to assure safe entry.
- Rescue/Emergency Procedures: Including provision for rescue equipment must be established and implemented.
- External Hazard Protection: Such as physical barriers, must be provided to control potential hazards posed by other employees and fork trucks working in the area.

Isolating the Confined Space to Prepare For Entry

The majority of the confined spaces cannot be completely isolated from hazards and the responsibility for implementing any available isolating measures to assure safe entry and exit rests with a designated Attendant. This Attendant:

- Is responsible for ensuring the current Confined Space Entry Permit is used.
- Has had confined space training.
- Monitors the confined space atmosphere prior to entry and continuously during the confined space entry activities.
- When there are methods available for isolation of the hazards ensure the confined space is isolated. At the confined spaces on the _____ *(Location name)* property this typically includes but is not limited to:
  - ✓ Lock out/tag out: Electrical sources, preferably at disconnect switches remote from the equipment
  - ✓ Blanking: Using rubber stoppers to reduce or eliminate wastewater flow from flowing into the space.
  - ✓ Disconnecting: Belt and chain drives and mechanical linkages on shaft-driven equipment where possible
  - ✓ Securing: Mechanical moving parts within confined spaces with latches, chains, chocks, blocks, or other devices

Pumps and Lines

All pumps and lines which may reasonably cause contaminants to flow into the space are to be disconnected, blinded and locked out, or effectively isolated by other means to prevent development of dangerous air contamination or engulfment. Not all laterals and Force Mains can be blocked. However, where experience or knowledge indicates that this is feasible all efforts should be made to block the lines. In some instances where rubber plugs must be inserted into the piping, and this requires entry into the space and the provisions for entry into a permit-required confined space must be implemented for this activity.

Personal Protective Equipment

The purpose of Personal Protective Equipment (PPE) is to shield or isolate individuals from the chemical, physical, and biological hazards that may be encountered during confined space operations, as it is not always apparent when exposure occurs. Some chemicals pose invisible hazards and their properties offer little or no warning signs.

It is important the PPE users realize that no single combination of protective equipment and clothing is capable of protecting a worker against all hazards. PPE can itself create significant wearer hazards such as heat stress and physical and psychological stress in addition to impaired vision, mobility, and communication. PPE should be selected on a case-by-case basis because overprotection as well as under protection can be hazardous and should be avoided.

PPE must be worn whenever the wearer faces potential hazards arising from chemical exposure.

The minimum personnel protective equipment requirements in a confined space include:

- Hard Hat: To be worn at all times.
- Safety Glasses/Goggles: To be worn at all times, if a full face-piece respirator is not donned.
- Work Gloves: Standard work gloves to be worn in dry conditions; Nitrile or butyl rubber gloves to be worn in wet conditions.
- Safety Work Shoes/Boots: To be worn at all times.
- Coveralls: To be worn at all times.
- Respirator: To be worn as determined by the onsite Attendant.
- Hearing Protection: To be worn when excessive noise requires a person to yell to communicate from a distance of 3 feet.

Sample Confined Space Entry Permit

Date and Time Issued: _____ Date and Time Expires: _____

Job site/Space I.D.: _____ Job Supervisor: _____

Equipment to be worked on: _____

Work to be performed: _____

Stand-by personnel: _____

- Atmospheric Checks:

Time	_____	
Oxygen	_____	%
Explosive		%
	_____	L.F.L.
Toxic	_____	PPM

Tester's signature: _____

- Source isolation (No Entry):

	N/A	Yes	No
Pumps or lines blinded, disconnected, or blocked	☐	☐	☐

- Ventilation Modification:

	N/A	Yes	No
Mechanical Natural Ventilation only	☐	☐	☐

- Atmospheric check after isolation and Ventilation:

Time	_____		>	19.5%
Oxygen	_____	%	<	10%
Explosive		%	<	10 PPM H (2) S
	_____	L.F.L.		
Toxic	_____	PPM		

Tester's signature: _____

- Communication procedures:
  _____

  _____

- Rescue procedures:
  _____

  _____

- Entry, standby, and back up persons:

	Yes	No
Successfully completed required training?	☐	☐
Is it current?	☐	☐

- Equipment:

	N/A	Yes	No
Direct reading gas monitor tested	☐	☐	☐
Safety harnesses and lifelines for entry/standby persons	☐	☐	☐
Hoisting equipment	☐	☐	☐
Powered communications	☐	☐	☐
SCBA's for entry/standby persons	☐	☐	☐
Protective Clothing	☐	☐	☐

<u>All electric equipment listed</u>

	N/A	Yes	No
Class I, Division I, Group D and Non-sparking tools	☐	☐	☐

- Periodic atmospheric tests:

Oxygen	_____ %	Time	_____	Oxygen	_____ %	Time	_____
Oxygen	_____ %	Time	_____	Oxygen	_____ %	Time	_____
Explosive	_____ %	Time	_____	Explosive	_____ %	Time	_____
Explosive	_____ %	Time	_____	Explosive	_____ %	Time	_____
Toxic	_____ %	Time	_____	Toxic	_____ %	Time	_____
Toxic	_____ %	Time	_____	Toxic	_____ %	Time	_____

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.

Permit Prepared By *(Supervisor)*: _____

Approved By *(Unit Supervisor)*: _____

Reviewed By (Cs Operations Personnel):

_____ _____
(printed name) *(signature)*

This permit to be kept at job site.

Return job site copy to _____
(Knowledgeable individual name) following job completion.

Copies:

Actions to Take With Varying Gas Measurement Concentrations

Parameter	Measurement	Action
O_2	< 19 %	Ventilate trench/void to restore O_2 to > 19 %
	< 18 %	Stop works
		Evacuate personnel/prohibit entry
		Increase ventilation to restore O_2 to > 19 %
CH_4	> 10 % LEL	Post “No Smoking” signs
		Prohibit Hot Works
		Ventilate to restore CH_4 to < 10 % LEL
	> 20 % LEL	Stop works
		Evacuate personnel/prohibit entry
		Increase ventilation to restore CH_4 to < 10 % LEL
CO_2	> 0.5 %	Ventilate to restore CO_2 to < 0.5 %
	> 1.5 %	Stop works
		Evacuate personnel/prohibit entry
		Increase ventilation to restore CO_2 to < 0.5 %

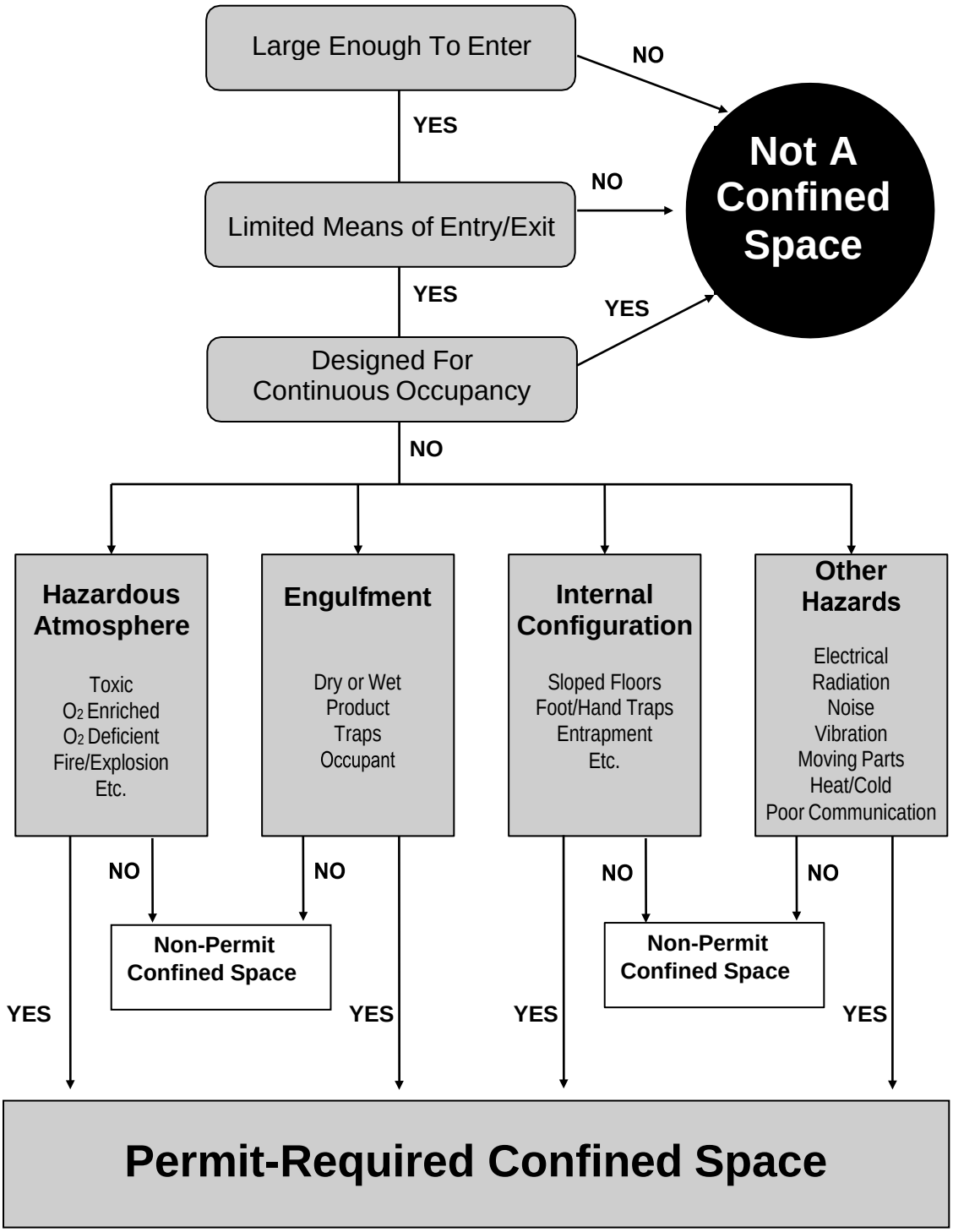
* Monitoring for gas should be undertaken when underground works are to be done through the use of an intrinsically safe portable instrument, appropriately calibrated and capable of measuring the following concentrations:

– Methane 0 to 100% (v/v)

– Carbon dioxide 0 to 100% (v/v); and

– Oxygen 0 to 21% (v/v)

Classifying Confined Spaces



Sample Permit Required for Confined Space Assessment

Date: _____

No.	Location	Hazards	Isolation Procedure
01N	Public service NW corner of Main St.	Atmosphere, Fire/Explosion, Electrical	Do Not Enter and if so contractors only
03N	Electrical Manhole SW corner Blue St.	Atmosphere, Fire/Explosion, Electrical	Do Not Enter and if so contractors only
05N	Old Flow meter for Main Lift Station	Atmosphere, Fire/Explosion, Engulfment/Surge Flow, Electrical, Ladder Rungs	Do Not Enter
07Y	Yello St Lift Station	Atmosphere, Fire/Explosion, Engulfment/Surge Flow, Electrical	o Shut off breakers and lock o Shut off 3 pumps upstream to reduce flow
11Y	Primary Lift Station	Atmosphere, Fire/Explosion, Engulfment/Surge Flow, Electrical, Ladder Rungs, Lighting - 40 feet below grade	• Shut off at electrical box and lock • Insert Rubber ball plugs to stop flow
12Y	Meter Box	Atmosphere, Fire/Explosion, Engulfment/Surge Flow, Ladder Rungs	None - read meters from above ground

Appendix E: Emergency Vehicle Response Guidelines

Chief Officers, as well as drivers, need to recognize the fact that the emergency vehicle response is the basis for the success or failure of all other emergency functions. These expensive vehicles carry all of the portable emergency equipment in addition to all of the personnel of the organization. Without the safe conveyance of these vehicles to the emergency scene, the emergency service organization cannot achieve its' mission of saving lives and protecting property.

Having sound emergency vehicle response guidelines in place will assist the emergency service organization in providing sound direction to its' officers and drivers. The following guidelines may be used to implement, supplement or enhance the emergency vehicle response policies and provide the basis for driver training for most emergency service organizations.

Your emergency services organization should review the following best practices and compare them to your organization's SOGs, state statutes and applicable standards. Prior to implementation the SOGs should be reviewed by legal counsel.

EMERGENCY VEHICLE RESPONSE OPERATING GUIDELINES OF THE

_____

(Municipal Entity/Department)

Purpose

Responding to any emergency call, the _____ places a great deal of responsibility on the drivers of our emergency vehicles. Not only must emergency vehicles drivers provide prompt conveyance of the apparatus, equipment, and personnel to provide service to those in need, but as importantly, must accomplish this task in the safest and most prudent manner possible. Emergency vehicle drivers have in their care, custody and control most of the major assets possessed by this organization (the vehicle, portable equipment, personnel). Emergency vehicle drivers also have a higher standard of care to provide to the general motoring public and must make every attempt possible to provide due regard for the safety of others. Drivers must constantly monitor and reduce the amount of risk and exposure to potential losses during each and every response. Safe arrival at the emergency scene shall be, and must always remain, the first priority of all emergency vehicle drivers. In order to accomplish this enormous task all emergency vehicles drivers shall become familiar with, and constantly abide by the following policies and procedures.

Procedures

Circle of Safety

Prior to entering the cab and starting the vehicle, the emergency vehicle driver shall make a circle of safety around the vehicle to see that all equipment is secured, that all compartment doors are securely closed and any physical obstructions moved out of the way. During the circle of safety the emergency vehicle driver shall encircle the vehicles and visually inspect all 4 sides and the top of the vehicle before entering the cab. He/she should also verify right side and rear clearance with the person riding in the officer position. This shall be conducted prior to moving the vehicle regardless of whether or not the vehicle is about to leave on an emergency or non-emergency.

Warning Devices and True Emergencies

When responding to a true emergency[1], all audible and visual warning devices will be operated at all times regardless of time of day and/or traffic conditions. All emergency

[1] The definition of a true emergency is a situation in which there is a high probability of death or serious injury to an individual or significant property loss, and actions by an emergency vehicle driver may reduce the seriousness of the situation.

vehicle drivers must understand that warning devices are not always effective in making other vehicle operators aware of your presence. Warning devices only request the right-of-way, they do not insure the right-of-way.

Vehicle Control and Right-of-Way

All drivers shall attempt to maintain control of the vehicle that they are operating in such a manner as to provide the maximum level of safety for both their passengers and the general public. Emergency vehicle drivers should be aware that the civilian vehicle operators may not react in the manner in which is expected or felt to be appropriate. An attempt should be made to have options available when passing or overtaking vehicles. If another vehicle operator fails to yield the right of way to an emergency vehicle, the emergency vehicle driver cannot force the right of way, nor can you assume the right of way, therefore you do not have the right of way until the other vehicle yields to you.
The emergency vehicle driver shall be aware of his/her rate of closure on other vehicles and a pedestrian at all times to make sure that a safe following distance is established and maintained. All drivers shall follow the rule for safe following distance and allow 1 second of following distance for every 10 feet of vehicle length for speeds under 40 mph and add 1 additional second for each 10 mph for speeds over 40 mph.

Response Speeds

When responding to a true emergency only, drivers shall operate the vehicle they are driving at as close to the **posted speed limit** as possible, but not to exceed ten (10) miles per hour over the posted speed limit, conditions permitting. Examples of conditions requiring slower response speeds include but are not limited to:

- slippery road conditions
- inclement weather
- poor visibility
- heavy or congested traffic conditions
- sharp curves

Intersection Practices

Extreme care should be taken when approaching any intersection as intersections are the locations responsible for a large percentage of major accidents involving emergency vehicles. Drivers are required to practice the organizations intersection operating guidelines during all emergency responses.

Uncontrolled Intersections

Any intersection that does not offer a control device (stop sign, yield or traffic signal) in the direction of travel of the emergency vehicle or where a traffic control signal is green upon the approach of the emergency vehicle all emergency vehicle drivers should do the following:

- Scan the intersection for possible hazards (right turns on red, pedestrians, vehicles traveling fast, etc.). Observe traffic in all 4 directions (left, right, front, rear)
- Slow down if any potential hazards are detected and cover the brake pedal with the driver's foot.
- Change the siren cadence not less than 200' from intersection
- Avoid using the opposing lane of traffic if at all possible.
- Emergency vehicle drivers should always be prepared to stop. If another vehicle operator fails to yield the right of way to an emergency vehicle, the emergency vehicle driver cannot force the right of way, nor can you assume the right of way, therefore you do not have the right of way until the other vehicle yields to you.

Controlled Intersections

Any intersection controlled by a stop sign, yield sign, yellow traffic light or a red traffic light requires **Prudent Action** by the emergency vehicle driver. The following steps should be taken:

1. Do not rely on warning devices to clear traffic
2. Scan the intersection for possible hazards (right turns on red, pedestrians, vehicles traveling fast etc.) as well as driver options
3. Begin to slow down well before reaching the intersection and cover the brake pedal with the drivers foot, continue to scan in 4 directions (left, right, front,, back)
4. Change the siren cadence not less than 200' from intersection
5. Scan intersection for possible passing options (pass on right, left, wait, etc.) avoid using the opposing lane of traffic if at all possible
6. Be prepared, during an emergency response, to bring the vehicle to a complete stop for the following:
    a. when directed by a law enforcement officer
    b. for red traffic lights
    c. for stop signs
    d. at negative right-of-way intersections
    e. when the driver cannot account for visible traffic in the lanes of traffic in an intersection
    f. when other intersection hazards are present

g. when encountering a stopped school bus with flashing warning lights

- Establish eye contact with other vehicle drivers; have partner communicate all is clear; reconfirm all other vehicles are stopped
- Account for traffic one lane of traffic at a time treating each lane of traffic as a separate intersection

Railroad Intersections

At any time an emergency vehicle driver approaches an unguarded rail crossing he/she shall bring the apparatus or vehicle he/she is operating to a complete stop before entering the grade crossing. In addition the emergency vehicle driver shall perform the following prior to proceeding:

- Turn off all sirens and air horns
- Operator the motor at idle speed
- Turn off any other sound producing equipment or accessories
- Open the windows and listen for a train's horn

Non-Emergency Response

When responding to a call in a non-emergency response mode or normal flow of traffic (non-code 3 or when not responding to a true emergency) the vehicle will be operated without any audible or visual warning devices and in compliance with all state motor vehicle laws that apply to civilian traffic. At no time should any emergency vehicle be operated during response with only visual warning devices.

Ordinary Travel Procedures

All drivers shall obey all traffic laws and traffic control devices when driving any fire department vehicle under ordinary travel conditions. Any driver observed breaking any traffic laws or driving any vehicle in an aggressive manner will be subject to disciplinary action including, suspension of driving privileges.

Riding Policy

The department requires all persons riding on fire apparatus to be seated in approved riding positions and be secured to the vehicle by seat belts whenever the vehicle is in motion. The emergency vehicle driver and/or the person riding in the officer position shall verify that all personnel are personnel are properly seated and in seat belts before the vehicle is moved. Standard communication signals should be formulated and utilized by all personnel.

The department prohibits the riding on tailsteps, sidesteps, running boards, or any other exposed position. Personnel who perform emergency medical care while the vehicle is in motion should be secured to the vehicle by a seat belt or safety harness designed for occupant restraint.

Backing

The department recognizes that backing emergency vehicles is made hazardous by the fact that the driver cannot see much of where he/she intends to go. The department recommends that whenever possible drivers should avoid backing as the safest way to back up a vehicle is not to back up at all. When it is necessary to back-up any departmental vehicle all drivers shall follow one of the two following measures would be taken:

- The department's first choice of backing procedures is that before any vehicle is put into reverse and backed that a spotter be put in place near the rear of the vehicle. The spotter should be safely positioned so that the emergency vehicle driver can see them at all times. If at any time the emergency vehicle driver loses sight of the spotter, he/she shall stop immediately until the spotter makes him/her visible again.
- If conditions exist that make use of spotters impossible, all drivers, before attempting to back up any fire department vehicle, shall will make a circle of safety to see that; no person or persons are directly behind the vehicle or in its intended path of travel; all equipment is secured and that all compartment doors are securely closed; any physical obstructions are moved out of the way. The emergency vehicle driver should also note all potential obstructions in the intended path of travel.

Response in Private Owned Vehicles

When any member responds to the station or to the scene of an emergency in his/her private vehicle, each member must strictly adhere to all applicable motor vehicle laws. Privately owned vehicles are not provided with the same exemptions that are provided to emergency vehicles. No member of the organization will be permitted to violate any motor vehicle laws, including but not limited to;

- Speed limits
- Going through traffic control devices
- Passing in an unsafe manner

While it is recognized that timeliness in response to an emergency is important, it is imperative that all drivers understand that their **private vehicles are not emergency vehicles and therefore are not afforded any exemptions or special privileges under state law**. Any driver observed breaking any traffic laws or operating any vehicle in an aggressive or unsafe manner will be subject to disciplinary action including, suspension, loss of driving privileges and withdrawal of courtesy light permit.

Acknowledgment

I, _____, acknowledge that I have received a copy of the _____ Emergency Vehicle Response Plan and have also been trained and understand the items and instructions contained in the policy. I also understand the importance of safe operation of this organization's vehicles, and will abide by all of the tactical and administrative operating guidelines contained in this document.

Signed _____ Date _____

Original – personnel file

Copy - driver

Appendix F: Electrical Components and Equipment for General Use Safety Checklist

This checklist was developed by the National Institute for Occupational Safety and Health (NIOSH) and covers regulations issued by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) under the general industry standards subpart S 29 CFR 1910.305 and the construction standards 29 CFR 1926.405 and 1926.441. It applies to all electrical use systems. This checklist does not cover installations in ships, watercraft, railway rolling stock, aircraft, or automotive vehicles other than mobile homes and recreational vehicles. In addition, this checklist does not apply to conductors that are an integral part of factory assembled equipment. The regulations cited apply only to private employers and their employees, unless adopted by a State agency and applied to other groups such as public employees.

This checklist does not address regulations dealing with open wiring on insulators, pull and junction boxes for systems over 600 volts, portable cables over 600 volts, transformers, and capacitors. If these conditions are encountered, consult the OSHA regulations.

Note: *Questions marked with this symbol Ø may require the help of an outside expert.*

Cabinets, Boxes, and Fittings

- Are conductors entering boxes, cabinets, or fittings protected from abrasion? [29 CFR 1910.305(b)(1) and 1926.405(b)(1)]
- Are openings through which conductors enter effectively closed? [29 CFR 1910.305(b)(1) and 1926.405(b)(1)]
- Are all unused openings in cabinets, junction boxes, and fittings effectively closed? [29 CFR 1910.305(b)(1) and 1926.405(b)(1)]
- Are all pull boxes, junction boxes, and fittings provided with covers approved for that purpose? [29 CFR 1910.305(b)(2) and 1926.405(b)(2)]
- Are metal covers grounded? [29 CFR 1910.305(b)(2) and 1926.405(b)(2)]
- Does each outlet box have a cover, faceplate, or fixture canopy? [29 CFR 1910.305(b)(2) and 1926.405(b)(2)]
- Do covers of outlet boxes with holes for flexible cord pendants have (a) bushings designed for cords to pass through holes, or (b) smooth, well-rounded surfaces on which the cords may bare? [29 CFR 1910.305(b)(2) and 1926.405(b)(2)]
- Are all electrical wall receptacles tight-fitting and in good condition? [recommended]

Switches

- Are single-throw knife switches connected so that the blades are dead when the switch is in the open position? [29 CFR 1910.305(c)(1) and 1926.405(c)]
  Note: *These types of switches should be accessible only to qualified persons.*
  - Are single-throw knife switches placed so that gravity will not cause them to close? [29 CFR 1910.305(c)(1) and 1926.405(c)]
  - Do single-throw knife switches approved for use in the inverted position have a locking device that will keep the blades in the open position when so set? [29 CFR 1910.305(c)(1) and 1926.405(c)]
  - Do flush snap switches that are mounted in ungrounded metal boxes and located within reach of conducting surfaces have face plates of non-conducting, noncombustible material? [29 CFR 1910.305(c)(2)]

Note: *Light switches need a cover plate.*

Switchboards and Panelboards

- Are panelboards mounted in cabinets, cutout boxes, or enclosures approved for the purpose and of the dead front type? [29 CFR 1910.305(d) and 1926.405(d)]

Enclosures for Damp Locations

- Are cabinets, cutout boxes, fittings, boxes, and panelboard enclosures in damp locations installed so as to prevent moisture from accumulating within the enclosures? [29 CFR 1910.305(e)(1) and 1926.405(e)(1)]
- Are switches, circuit breakers, and switchboards installed in wet locations enclosed in weatherproof enclosures? [29 CFR 1910.305(e)(2) and 1926.405(e)(2)]
- Is water leakage into light receptacles or fixtures (which may cause a fire hazard) immediately repaired? [recommended] (Look for evidence of water leakage.)

Conductors for General Wiring

- Are all conductors used for general wiring insulated? [29 CFR 1910.305(f) and 1926.405(f)]
- Is the insulation approved for the voltage, operating temperature, and location of use? [29 CFR 1910.305(f) and 1926.405(f)]

- Is the insulated conductor distinguished by color or other suitable means as being the grounded conductor, ungrounded conductor, or equipment grounding conductors? [29 CFR 1910.305(f) and 1926.405(f)]

Flexible Cords and Cables

- Are flexible cords and cables prohibited from being used as a substitute for fixed wiring of a structure where they are (a) attached to building surfaces; (b) concealed; (c) run through holes in walls, ceilings, or floors; or (d) run through doorways, windows, or similar openings? [29 CFR 1910.305(g)(1)(iii) and 1926.405(g)(1)(iii)] ***Note:*** *Flexible cords and cables may be used only for the following: pendants; wiring of fixtures; connecting portable lamps or appliances; elevator cables; wiring cranes and hoists; connecting stationary equipment to facilitate their frequent interchange; preventing the transmission of noise or vibration; appliances that have fastening means and mechanical connections that can be removed for maintenance and repair; or data processing cables approved as a part of the data processing system. [29 CFR 1910.405(g)(1)(i)*

- Are flexible cords used only in continuous lengths without splices or tap? [29 CFR 1910.305(g)(2)(ii) and 1926.405(g)(2)(iii)]
- Are flexible cords connected to devices and fittings so strain relief is provided to prevent pull from being directly transmitted to joints or terminal screws? [29 CFR 1910.305(g)(2)(iii) and 1926.405(g)(2)(iv)]
- Are all wires located away from walking areas to prevent a tripping hazard? [recommended]

Note: *Flexible cords used by labs or shops for portable equipment are recommended to be designed for hard or extra hard usage.*

Equipment for General Use: Lighting Fixtures, Lampholders, Lamps, and Receptacles

- Are fixtures, lamp holders, lamps, rosettes, and receptacles designed and maintained so that no live parts can expose students and teachers to contact? [29 CFR 1910.305(j)(1)(i) and 1926.405(j)(1)(i)]
- Are portable hand lamps supplied through flexible cords equipped with a handle of molded composition or other approved material and a substantial guard attached to the lamp holder or handle? [29 CFR 1910.305(j)(1)(ii) and 1926.405(j)(1)(iii)]
- Is the use of multiple plug receptacles prohibited? [recommended]

Equipment for General Use: Receptacles, Cord Connectors, and Attachment Plugs (caps)

- Are receptacles, cord connectors, and attachment plugs constructed so that receptacles or cord connectors will accept only an attachment plug with a voltage or current rating for which the device is intended? [29 CFR 1910.305(j)(2)(i) and 1926.405(j)(2)(i)]
- Are receptacles installed in damp locations suitable for that location? [29 CFR 1910.305(j)(2)(ii) and 1926.405(j)(2)(ii)]

Note: *Ground-fault circuit interrupters are recommended in these types of locations.*

Equipment for General Use: Appliances

- Are appliances designed and maintained so that they have no live parts normally exposed to student and teacher contact? [29 CFR 1910.305(j)(3)(i) and 1926.405(j)(3)(i)]
- Are means provided to disconnect each appliance? [29 CFR 1910.305(j)(3)(ii) and 1926.405(j)(3)(ii)]
- Is each appliance marked with its rating in volts and amperes or volts and watts? [29 CFR 1910.305(j)(3)(iii) and 1926.405(j)(3)(iii)]
- Are electrical appliances in good operational condition? [recommended]

Equipment for General Use: Motors

- Is the disconnecting means within view from the controller? [29 CFR 1910.305(j)(4)(ii)(A) and 1926.405(j)(4)(ii)(A)]
- Note: If a motor and the driven machinery are not within view from the controller location, consult OSHA regulations.
- Ø Does the disconnecting means disconnect the motor and the controller from all ungrounded supply conductors, and is it designed so that no pole can be operated independently? [29 CFR 1910.305(j)(4)(ii)(B) and 1926.405(j)(4)(ii)(B)]
- Ø Are motors, motor control apparatus, and motor branch- circuit conductors protected against overheating from motor overload or failure to start, and against short-circuits or ground faults? [29 CFR 1910.305(j)(4)(iii) and 1926.405(j)(4)(iii)]
- Are exposed live parts of motors and controllers operating at 50 volts or more between terminals guarded against contact? [29 CFR 1910.305(j)(4)(iv)(A) and 1926.405(j)(4)(iv)(A)]

Storage Batteries

- Is sufficient diffusion and ventilation provided to storage batteries to prevent the accumulation of explosive mixtures? [29 CFR 1910.305(j)(7) and 1926.441(a)(1)and(2)]

Definitions

Controller

a device or group of devices that governs, in a predetermined manner, the electric power delivered to the apparatus to which it is connected.

Cutout Box

an enclosure designed for surface mounting with swinging doors or covers secured directly to and telescoping with the walls of the box.

Dead Front

without live parts exposed to a person on the operating side of the equipment.

Panelboard

a single or group of panel units designed for assembly in the form of a single panel. The panelboard includes buses and automatic overcurrent devices, and may or may not have switches to control light, heat, or power circuits. It is designed to be placed in a cabinet or cutout box in or against a wall and accessible only from the front.

Electrical Wiring Design and Protection Safety Checklist

This checklist was developed by the National Institute for Occupational Safety and Health (NIOSH) and covers regulations issued by the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) under the general industry standards subpart S 29 CFR 1910.304 and 1910.307 and the construction standards subpart K CFR 1926.404 and 1926.407. It applies to all electrical use systems. This checklist does not cover installations in ships, watercrafts, railway rolling stock, aircrafts, or automotive vehicles other than mobile homes and recreational vehicles. The regulations cited apply only to private employers and their employees, unless adopted by a State agency (NYPESH) and applied to other groups such as public employees. Definitions of terms in bold type are provided at the end of the checklist to help you understand some of the questions.

This checklist does not address regulations dealing with outside conductors, 600 volts, nominal, or less; services to buildings; overcurrent protection (fuses and circuit breakers) for over 600 volts, nominal; and grounding for over 1,000 volts. If any of these conditions are encountered, consult the OSHA regulations.

Use and Identification of Grounded and Grounding Conductors

- Are conductors used for grounding identified and distinguishable from all other conductors? [29 CFR 1910.304(a)(1) and 1926.404(a)(1)]

Note: *Grounding conductors should be colored white according to the National Electric Code.*

- Have all grounded conductors maintained the designated polarity when attached to a terminal or lead? [29 CFR 1910.304(a)(2) and 1926.404(a)(2)]

Note: *Electrical outlets (receptacles), when tested with a circuit analyzer, should not show a reversed polarity, open neutral, or neutral reversed with any other line.*

- Is the use of a grounding terminal or grounding-type device prohibited on a receptacle, cord connector, or plug attachment, except for the purpose of grounding? [29 CFR 1910.304(a)(3) and 1926.404(a)(3)]

Overcurrent Protection 600 Volts, Nominal, or Less

- Are conductors and equipment protected from overcurrent in accordance

with their ability to conduct current safely? [29 CFR 1910.304(e)(1)(i) and 1926.404(e)(1)(i)]

- Are overcurrent devices (except for the motor running overload protection) designed so as to not interrupt the continuity of the grounded conductors unless all conductors of the circuit are opened simultaneously? [29 CFR 1910.304(e)(1)(ii) and 1926.404(e)(1)(ii)]
- Are disconnecting means provided for (a) all cartridge fuses (except for service fuses) that are accessible to other than qualified persons and (b) all fuses and thermal cutouts on circuits over 150 volts to the ground? [29 CFR 1910.304(e)(1)(iii) and 1926.404(e)(1)(iii)]
- Is this disconnecting means installed so that the fuse or thermal cutout can be disconnected from its supply without disrupting service to the equipment and circuits unrelated to those protected by the overcurrent device? [29 CFR 1910.304(e)(1)(iii) and 1926.404(e)(1)(iii)]
- Are overcurrent devices readily accessible to all authorized personnel? [29 CFR 1910.304(e)(1)(iv) and 1926.404(e)(1)(iv)]
- Are the overcurrent devices located so that they will not be exposed to physical damage nor located near easily ignitable material? [29 CFR 1910.304(e)(1)(iv) and 1926.404(e)(1)(iv)]
- Are fuses and circuit breakers located or shielded so that people will not be burned or otherwise injured by their operation? [29 CFR 1910.304(e)(1)(v) and 1926.404(e)(1)(v)]
- Are circuit breakers clearly indicated whether they are in the open (off) or closed (on) position? [29 CFR 1910.304(e)(1)(vi)(A) and 1926.404(e)(1)(vi)(A)]
- When circuit breaker handles on switchboards are operated vertically rather than horizontally or rotationally, is the up position the closed (on) position? [29 CFR 1910.304(e)(1)(vi)(B) and 1926.404(e)(1)(vi)(B)]
- On switches in 120-volt fluorescent lighting circuits, is the circuit breaker approved for this purpose and marked "SWD"? [29 CFR 1910.304(e)(1)(vi)(C) and 1926.404(e)(1)(vi)(C)]
- When installed within a six foot radius of sinks, are 125-volt, single-phase, 15- and 20-amp receptacles equipped with a ground-fault circuit interrupter? [recommended]
- When installed outdoors, are 125-volt, single-phase, 15- and 20-amp receptacles equipped with a ground-fault circuit interrupter? [recommended]
- Are all overcurrent devices legibly marked to indicate its purpose? [29 CFR 1910.303(f)]

Grounding

- Are all neutral conductors grounded in all three-wire DC systems? [29 CFR 1910.304(f)(1)(i) and 1926.404(f)(1)(i)]

- Are all two-wire DC systems operating at 50 volts through 300 volts between conductors grounded? [29 CFR 1910.304(f)(1)(ii) and 1926.404(f)(1)(ii)]

Note: *Exceptions to this requirement are permitted when (a) they supply only industrial equipment in limited areas and are equipped with a ground detector; or (b) they are fire-protective signaling circuits having a maximum current of 0.030 amperes.*

- Are all AC circuits of less than 50 volts grounded when (a) they are installed as overhead conductors outside a building, or (b) they are supplied by transformers, and the transformer's primary supply system is ungrounded or exceeds 150 volts to ground? [29 CFR 1910.304(f)(1)(iii) and 1926.404(f)(1)(iii)]
- Are all AC systems of 50 volts to 1,000 volts grounded? [29 CFR 1910.304(f)(1)(iv) and 1926.404(f)(1)(iv)]

Note: *See OSHA regulations for possible exemptions to this requirement.*

- Electrical outlet receptacles should not indicate an open ground when tested with a circuit analyzer.
- For AC premises wiring systems, is the identified conductor grounded? [29 CFR 1910.304(f)(2) and 1926.404(f)(4)]
- When systems are grounded, is a grounding electrode conductor used to connect both the equipment grounding conductor and the grounded circuit conductor to the grounding electrode? [29 CFR 1910.304(f)(3)(i) and 1926.404(f)(5)(i)]

Note: *This is only determined at the main service or vault.*

- Are both the equipment grounding conductor and the grounding electrode conductor connected to the grounded circuit conductor (a) on the supply side of the service disconnecting means, or (b) on the supply side of the system disconnecting means or overcurrent device if the system is separately derived? [29 CFR 1910.304(f)(3)(i) and 1926.404(f)(5)(i)]
- On ungrounded service-supplied systems, is the equipment grounding conductor connected to the grounding electrode conductor at the service equipment? [29 CFR 1910.304(f)(3)(ii) and 1926.404(f)(5)(ii)]
- Is the path to the ground from circuits, equipment, and enclosures permanent and continuous? [29 CFR 1910.304(f)(4) and 1926.404(f)(6)]
- Are metal cable trays, metal raceways, and metal enclosures for conductors grounded? [29 CFR 1910.304(f)(5)(i) and 1926.404(f)(7)(i)]

Note: *See OSHA regulations for possible exemptions to this requirement.*

- Are metal enclosures for service equipment grounded? [29 CFR 1910.304(f)(5)(ii) and 1926.404(f)(7)(ii)]

- Are the following appliances grounded: frames of electric ranges, wall-mounted ovens, counter-mounted cooking units, clothes dryers, and metal outlets or conjunction boxes that are part of the circuit for these appliances? [29 CFR 1910.304(f)(5)(iii)]
- Are exposed noncurrent-carrying metal parts of fixed equipment that may be energized grounded? [29 CFR 1910.304(f)(5)(iv) and 1926.404(f)(7)(iii)]
- Are all exposed noncurrent-carrying metal parts of cord and plug connected equipment grounded? [29 CFR 1910.304(f)(5)(v) and 1926.404(f)(7)(iv)]

Note: *This applies to metal cases of tools and equipment except those that are double insulated.*

- When required, are the noncurrent-carrying metal parts of fixed equipment grounded by an equipment grounding conductor contained in the same raceway, cable, or cord, or runs with or encloses the circuit conductors? [29 CFR 1910.304(f)(6)(i) and 1926.404(f)(8)(i)]

Note: *For DC circuits only, the equipment grounding conductor may be run separately from the circuit conductors.*

Hazardous Locations

- Are all equipment, wiring methods, and installations of equipment in hazardous (classified) locations intrinsically safe, approved for the hazardous location, or safe for the hazardous location? [29 CFR 1910.307(b) and 1926.407(b)]
- Is equipment approved not only for the class of location but also for the ignitable or combustible properties of the gas, vapor, dust, or fiber that will be present? [29 CFR 1910.307(b)(2)(i) and 1926.407(b)(2)(i)]
- Is equipment in a hazardous location marked to show the class, group, and operating temperature? [29 CFR 1910.307(b)(2)(ii) and 1926.407(b)(2)(ii)]
- Are all conduits threaded and made wrench-tight? [29 CFR 1910.307(c) and 1926.407(c)]

Appendix G: Model Emergency and Evacuation Plan

Types of Emergencies

In our municipality some potential emergencies that can realistically be expected to occur from natural and man-made situations include:
(List those that apply and include others specific to your facilities)

- Flooding
- High winds impacting facilities
- Fire in buildings
- Vehicle accidents
- Chemical releases
- Unruly or violent citizen or employee
- Others

Key Individuals

Key personnel and their contact information are listed below:
(List those that apply and include others specific to your facilities)

- Internal staff
  - ✓ Main administrative desk
  - ✓ Human resources
  - ✓ Building/facility management
  - ✓ Building/facility fire wardens
- Police
- Fire
- EMS
- Hazmat Contractors

Reporting Emergencies and Alerting Employees in an Emergency

- Dial 911
- Call internal numbers to inform others of the situation
- Initiate alarms and/or evacuation as necessary

Evacuation Policy and Escape Routes

✓ When in doubt initiate alarms and evacuate
- ✓
- ✓

- Evacuation routes have been posted in the hallways and main rooms of the facility
- First-aid stations are located at:
  -
  -
- Identify the types of actions expected of different employees for the various types of potential emergencies, and insert below:
  -
  -

Chain of Command and Maintenance of Operations

The following individual _____ (*list the staff person responsible and contact information here)* is authorized to:

- Order an evacuation or shutdown of operations.
- Coordinate and communicate with emergency responders.
- Control the overall emergency response until command is clearly handed over to the police or emergency responders.
- Establish immediate priorities including the safety of responders, other emergency workers, bystanders, and people involved in the incident.
- Approve the implementation of the written or oral Incident Action Plan.
- Brief Command Staff and Section Chiefs.
- Assess the situation and/or obtain a briefing from the prior Incident Commander.
- Review meetings and briefings.
- Approve the use of trainees, volunteers, and auxiliary personnel.
- Stabilize the incident by ensuring life safety and managing resources efficiently and cost effectively.
- Authorize release of information to the news media.
- Ensure that adequate safety measures are in place.
- Coordinate with key people and officials.
- Approve requests for additional resources or for the release of resources.
- Keep municipal officials informed of incident status.
- Ensure an incident evaluation is completed and forwarded to appropriate higher authority.
- Order the demobilization of the incident scene when appropriate.

Responsibilities of the Fire Wardens and Alternates

- Instruct everyone to leave the building immediately, using designated exits.
- Search your designated area, including all offices and restrooms. Be the last person to leave the area.
- Help any person needing assistance to evacuate including those with disabilities or who do not speak English.
- Close all doors that lead into the main hallway. Do not lock doors; leave all lights on.
- Report to the Incident Commander in the parking lot that your area is all clear.
- Taking attendance.
- Join your assembled group in its designated area.
- Await instructions on return to the building.
- After completion of the drill/incident, offer feedback and suggestions.

Personal medical and emergency contact information on employees can be obtained in an emergency through contact with _____
(list the staff person responsible and contact information here).

Utility and System Locations

The locations where utilities and other systems can be shut down for all or part of the facility are noted below.
(list the type of critical systems and locations below including items such as gas supply, electrical, sprinklers, chlorine gas, etc.)

Employee Training and Drills

All employees upon hire are trained by _____
(insert human resources or management name) in the following:

- ✓ Contents of the emergency action plan include:
  - Individual roles and responsibilities
  - Specific hazards of their building or facility
  - Threats, hazards, and protective actions
  - Notification, warning, and communications procedures
  - Emergency response procedures
  - Evacuation, shelter, and accountability procedures
  - Location and use of common emergency equipment
  - Emergency shutdown procedures.

Emergency evacuation drills will be conducted _____
(insert frequency here depending on local regulations).

- Following each drill management and employees will evaluate the effectiveness of the drill. Identify the strengths and weaknesses and make changes as appropriate.
- Employees will be re-trained in the following circumstances:
    - Following an actual emergency to review relevant observations and any changes to the plan.
    - When there are changes to the facility or building that impact the communication, design, layout and hazards.
    - Whenever the emergency plan is revised.

Depending upon the responsibilities of staff identified in the plan, you may also need to provide additional training to your employees *(i.e., first-aid procedures, portable fire extinguisher use, etc.)*

In the Event of an Alarm

- ✓ Follow the evacuation plan and routes identified.
- ✓ Assure that you are accounted for after leaving the building.
- ✓ Secure all monies, checks or other funds or instruments; take only your outer clothing and personal valuables ONLY if they are easily accessible.
- ✓ Listen to any special instructions given and follow them.
- ✓ Descend stairwells in a calm, orderly manner. Walk; do not run. Keep moving and keep conversation at a minimum.
- ✓ Proceed to the designated meeting point. Assemble and await further instructions.
- ✓ Remain in the assembly area until a physical determination can be made that everyone has left the premises.
- ✓ Any employee who requires assistance in evacuation due to a physical condition or limitation should notify their supervisor so that special arrangements can be made.

Appendix H: Bail-Out Systems Sample Risk Assessment Worksheet

Fire departments are responsible for conducting risk assessments to identify occupancies which may present challenges to escape if entrapped during interior firefighting operations in structures to which they are likely to respond to in their primary response area. A department should also obtain the risk assessments from fire departments to which they would routinely provide aid. This Risk Assessment Worksheet is designed to assist you with the process.

Depending on the outcome of the risk assessment, fire departments may also be responsible for:

- Documenting any existing mitigating factors (engineering controls) or standard operating procedures (administrative controls) that would facilitate escape if entrapped at elevations.
- Identifying the appropriate emergency escape system(s) (personal protective equipment) to allow a firefighter to escape from elevation;
- Training each interior firefighter on the engineering and administrative controls and the operational features of the emergency escape systems used by their department;
- Developing policies and procedures for periodically reviewing and/or inspecting the emergency escape systems and methods to ensure they are safe for use.

Fire District/Department Information

Date:	
Department Name:	
Department Location:	
Completed by: (Name/Title)	

Risk Assessment

Your risk assessment includes two factors; likelihood of being at elevation and severity of injury due to escaping from elevation. To determine the risk: 1) identify structures that are tall enough that the likelihood of being able to self-escape would be difficult, and 2) where the severity of the injury resulting from exiting a building at elevations above the ground floor increases. The following two sections will help you assess your risk.

Inability to Escape

The following factors demonstrate some of the issues that complicate the ability to escape at elevations. Your response area may include additional factors that you should consider:

- ✓ There is a risk of entrapment at any elevation; the ability to escape is more complex and the likelihood of injury increases as the elevation increases.
- ✓ Density or adjacency of buildings where external mitigating measures are limited will complicate the ability to escape at elevation.
- ✓ Number of working structural fires requiring interior firefighting annually will increase the risk that any given firefighter may become entrapped at elevation.
- ✓ The presence of fire suppression systems within the structure (sprinklered structures) is very likely to decrease the risk of entrapment at any elevation by eliminating the potential for flash over.
- ✓ The Number of interior firefighters available on the fireground in addition to the presence of a Rapid Intervention Team (RIT) is a mitigating factor in reducing the risk and severity of injury should a firefighter become entrapped at elevations.
- ✓ Previous incidents where firefighters have become entrapped at elevations in the same or similar occupancies.
- ✓ Other factors which may include; building type/construction (ease of fire spread), building occupancy use type (what is the occupancy being used for), and fuel loading (amount or arrangement of fuel load).

Severity of Injury

If it is determined that there is a risk of injury at elevation and the risk increases proportional to the elevation; therefore the height of the building ultimately will have the greatest impact on the severity of the injury when exiting a structure without an emergency escape system. Consider the following:

- Do you have structures in your primary response area or areas where the fire department routinely responds where you would perform interior firefighting at an elevation that would create difficulty or injury should emergency self- evacuation be necessary? **Yes No**
- Do you have any buildings that are at a safe elevation for self-escape without assistance on the entry side but are above ground floor elevation for safe self-escape without assistance on any other side of the building? **Yes No**
- What is the maximum height of any structure in your primary response

area or areas where the fire department routinely responds where you would perform interior firefighting operations where there is a risk of being unable to self-escape due to the elevation:

_____

Identify all structures in your primary response area where if entrapped, emergency self-escape would require the use of an escape system, providing the following:

Address of the structure
Current Occupancy/Use
Maximum height of structure

Risk Mitigation

Risk mitigation may include any engineering controls, written administrative practices (including written standard operating guidelines), and/or personal protective equipment (mechanical means of escape carried with the firefighter) that would lessen the likelihood and severity of injury should emergency escape at elevations be necessary to exit the building.

Engineering Controls

The initial line of defense that would help to minimize the possibility of trapping firefighters in buildings at elevations. These are physical items permanently installed or affixed to structures in your primary response area that would help to minimize the need for firefighters to perform an emergency self-escape at elevations. Such as:

- Buildings with sprinkler systems throughout the entire structure or,
- Enclosed and vented stair towers accessible from every floor or,
- Use of a charged hose during entry which minimizes the possibility of flash over or,
- List any additional items as necessary:

_____

Administrative Practices

These are policies and procedures that firefighters would follow to minimize the need to perform an emergency self-escape at elevations and/or reduce the injury sustained in the process. Administrative practices include written administrative practices or written standard operating procedures or guidelines firefighters will use to eliminate or reduce

the need to rescue firefighters that may become entrapped at elevations or that mitigate the risks or severity of injury as a result of emergency self-escape. These are procedures that interior structural firefighters must follow to ensure they are able to self-escape at elevations. Firefighters must be trained on these standard operating procedures or guidelines.

Add additional items as necessary, such as:

- No interior structural firefighting will be performed under certain circumstances.
- Are Rapid Intervention Teams (RIT, FAST) assignments a policy at working fires for your department?
- Only entering burning structures with a charged fire hose.

Personal Protective Equipment – Mechanical Means of Escape

Mechanical Means of Escape (MME) is a Personal Protective Equipment Device provided to an interior structural firefighter when engineering and administrative controls are not sufficient to facilitate escape and reduce injury if entrapped at elevations for structures in your primary response area and other areas where the fire department routinely responds.

Selecting Personal Protective Equipment (Emergency Escape Systems)

- Based on the(se) assessments of your response area(s), is a personal emergency escape system necessary for your department?

Yes **No**

(If yes, answer the next two questions)

- What personal emergency escape system have you selected? Name of manufacturer?

  _____

- What national certification organization approved the components your emergency escape system?

  _____

Provide Documentation for All Components

Note: *This includes NFPA, ANSI, etc.*

- Are firefighters trained on the engineering and administrative controls and the proper use of the personal protective equipment (personal emergency escape system)?

Yes **No**

- Are personal emergency escape systems used in accordance with the manufacturer's instructions?

Yes **No**

- Are interior firefighters trained to competency in the use of emergency escape systems provided?

Yes **No**

Signature: _____

Date: _____

Note: *this document is meant to be used as guidance. Your risk assessment may need to be modified to match the needs of your fire district/department.*

Appendix I: Inspection of Emergency Escape Equipment

Escape Rope

- Run the escape rope through your hand and fingers.
- Look for any discoloration, cuts, abrasions or unraveling.
- Inspect the sewn ends for broken stitches, cuts or excessive wear.
- If any part of the escape rope does not pass the inspection, the entire length of rope must be placed out of service and destroyed.

Hardware

- Visually inspect all hardware for cracks, scratches, discoloration or deformity.
- All movable parts should be free and operate easily.
- Clean with a damp cloth and allow to air dry.
- Do not oil or lubricate any part of the system.
- If any hardware does not pass the visual inspection, the entire system must be placed out of service.

Harness/Belt Webbing

- Visually inspect the harness webbing and stitching by running the webbing through your hands.
- Bend the webbing around your hand to inspect the inner portion of the web. Be sure to check both sides.
- Look for discoloration, abrasions, cuts, unraveling or excessive wear.
- If the harness/belt webbing does not pass inspection, the entire system must be placed out of service.

Bag, Rope Cartridge and Sleeve

- Visually inspect the entire unit for discoloration, rips, tears, stitching and seams.
- Remove from service if any portion does not pass inspection.

If used in an actual emergency

NFPA 1983-2006 stipulate the escape rope is for single use only in a true fire ground situation. If an emergency escape system is used for an actual emergency egress situation, the entire system must be placed out of service. Also, the escape rope must be destroyed and the remainder of the system must be inspected.

- Visually inspect all components of the system.
- Gather all components of the system to a clean and dry location.
- Use a soft brush and vacuum to remove all dust and debris from the components.

If unit is wet, lay flat to dry.

- Do not lay in direct sunlight.
- Do not use drying devices.
- Do not use UV lamps.

To clean, use a very mild detergent and cool water. Use a soft brush and cloth.

- Do not use bleach, ammonia or any harsh cleaning chemicals.
- Do not place in washing machine.

Note: *If you are unsure of the integrity of the system or its components –* ***DO NOT USE*** *– place out of service until further inspection can be conducted.*

Appendix J: Forklifts – Powered Industrial Trucks

The material below is from an OSHA e-Tool entitled Powered Industrial Trucks (Forklifts). This training material and associated videos are available free from the OSHA website. This material should be supplemented by the equipment manufacturers' safety and operation guidelines that are specific to the equipment you operate.

Powered industrial trucks, commonly called forklifts or lift trucks, are used in many industries, primarily to move materials. They can be used to move, raise, lower, or remove large objects or a number of smaller objects on pallets or in boxes, crates, or other containers.

The hazards commonly associated with powered industrial trucks vary depending on the vehicle type and the workplace where the truck is used. Each type of truck presents different operating hazards. For example, a sit-down, counterbalanced high lift rider truck is more likely than a motorized hand truck to be involved in a falling load accident, because the sit-down rider truck can lift a load much higher than a hand truck. Workplace conditions also present different hazards. For example, retail establishments often face greater challenges than other worksites in maintaining pedestrian safety.

The best way to protect employees from injury also depends on the type of truck operated and worksite where it is being used.

A vehicle that is in need of repair, defective or in any way unsafe should be removed from service. The problem should be recorded on a log and reported to a supervisor immediately. This section discusses pre-operation and operational inspections that operators should perform to ensure that forklifts will operate safely. Only operators who have been trained and evaluated in accordance with 29 CFR 1910.178(l) can operate forklifts.

- Pre-Operation Inspection
- Operational Inspection
- Removal from Service
- Maintenance

Note: *For a brief overview of measurements that forklift operators should know to determine whether the forklift can do a task safely in the available space, see Critical Forklift Measurements.*

General Requirements and Recommended Practices

OSHA requires that all forklifts be examined at least daily before being placed in service. Forklifts used on a round-the-clock basis must be examined after each shift. [29 CFR 1910.178(q)(7)]

The operator should conduct a pre-start visual check with the key off and then perform an operational check with the engine running. The forklift should not be placed in service if the examinations show that the vehicle may not be safe to operate.

Remember! A vehicle in need of repair, defective or in any way unsafe, should not be driven, and should be taken out of service immediately. Any problems should be recorded on the appropriate documents and reported to a supervisor.

Before starting your vehicle, conduct a pre-operation (or pre-start) inspection that checks a variety of items, including but not limited to:

- Fluid levels -- oil, water, and hydraulic fluid.
- Leaks, cracks or any other visible defect including hydraulic hoses and mast chains. ***Note:*** *Operators should not place their hands inside the mast. Use a stick or other device to check chain tension.*
- Tire condition and pressure including cuts and gouges.
- Condition of the forks, including the top clip retaining pin and heel.
- Load backrest extension.
- Finger guards.
- Safety decals and nameplates. Ensure all warning decals and plates are in place and legible. Check that information on the nameplate matches the model and serial numbers and attachments.
- Operator manual on truck and legible.
- Operator compartment. Check for grease and debris.
- All safety devices are working properly including the seat belt.

In addition to this general inspection, additional items should be checked depending on the forklift type (electric or internal combustion, including liquid propane). These include but are not limited to:

- Electric Forklifts
    - ✓ Cables and connectors for frayed or exposed wires
    - ✓ Battery restraints
    - ✓ Electrolyte levels
    - ✓ Hood latch

Note: *Always use personal protective equipment (i.e.,face shield, rubber apron, rubber gloves, etc.) when checking electrolyte.*

- Internal Combustion Forklifts
  - Engine oil
  - Brake reservoir
  - Engine coolant
  - Air filter
  - Belts and hoses
  - Radiator
  - Hood latch

- Liquid Propane Forklifts
  - Properly mounted tank
  - Pressure relief valve pointing up
  - Hose and connectors
  - Tank restraint brackets
  - Tank for dents and cracks
  - Tank fits within profile of truck
  - Leaks

Note: *Always use personal protective equipment such as a face shield, long sleeves, and gauntlet gloves when checking liquid propane tanks and fittings.*

After completing the pre-operation inspection, operators should conduct an operational inspection with the engine running. This inspection includes:

- Accelerator linkage
- Inch control (if equipped)
- Brakes
- Steering
- Drive control: forward and reverse
- Tilt control: forward and back
- Hoist and lowering control
- Attachment control
- Horn
- Lights
- Back-up alarm (if equipped)
- Hour meter

NOTE: *Unusual noises or vibrations should be reported immediately.*

Potential Hazards When Driving a Forklift

While driving, be aware of these potential hazards:

- Mechanical breakdown
- Fire

- Overheating
- Leakage

Reasons for Removing a Forklift from Service

The OSHA powered industrial truck standard [29 CFR 1910.178] lists a number of conditions under which a forklift must be removed from service. If the operator notes these conditions while driving, the operator must stop, park the vehicle and get assistance.

- Any powered industrial truck not in safe operating condition shall be removed from service. All repairs shall be made by authorized personnel. [29 CFR 1910.178(q)(1)]
- Defects when found must be immediately reported and corrected. [29 CFR 1910.178(q)(7)]
- Any vehicle that emits hazardous sparks or flames from the exhaust system shall immediately be removed from service and not returned to service until the cause for the emission of such sparks and flames has been eliminated. [29 CFR 1910.178(q)(8)]
- When the temperature of any part of any truck is found to be in excess of its normal operating temperature, thus creating a hazardous condition, the vehicle shall be removed from service and not returned to service until the cause for such overheating has been eliminated. [29 CFR 1910.178(q)(9)]
- No truck shall be operated with a leak in the fuel system until the leak has been corrected.

Scheduled maintenance is critically important to the safe operation of your vehicle. Never operate a forklift requiring maintenance, and always report repair problems to your supervisor. Follow your company's procedures.

Potential Hazards of Not Removing a Forklift from Service

- Forklift skidding or sliding due to grease, leakage, spills.
- Mechanical breakdown due to poor maintenance.
- Accidents and injuries due to improperly working equipment.

Requirements and Recommended Practices

- Never operate a vehicle that requires maintenance or is in any way unsafe. [29 CFR 1910.178(p)(1)]
- Remove from service any powered industrial truck not in safe operating condition. All repairs must be made by authorized personnel. Do not attempt to

fix it yourself unless you are trained and authorized to do so. [29 CFR 1910.178(q)(1)]

- Perform preventive maintenance according to manufacturer's scheduled recommendations.
- Keep industrial truck in clean condition, free of lint, excess oil, and grease. [29 CFR 1910.178(q)(10)]
    - ✓ Use non-combustible agents for cleaning trucks.
        - o High flash point (at or above 100° F) solvents may be used. Do not use low flash point (below 100° F) solvents.
        - o Take recommended precautions regarding toxicity, ventilation and fire hazards.

Mounting and Dismounting

Potential Hazards

- Hitting head on overhead cage.
- Slips, trips and falls, especially feet slipping off step.

Requirements and Recommended Practices

- Be sure that your hands are clean and dry to prevent slipping when grabbing handhold.
- Check your shoes for grease before entering the vehicle.
- Grasp handhold and get a good grip. Never grab the steering wheel because it could cause you to lose balance if it moves.
- Always be careful with your footing when mounting and dismounting vehicle.
- Pull or lower your body carefully into or out of cab. Dismounting is the opposite of mounting -- do not jump.
- Wear appropriate footwear to prevent skids.

Starting

Before starting a forklift, be sure to conduct a pre-operation inspection. In addition, conduct an operational check after starting the engine.

- Ensure that your way is clear. Sound your horn in warning or use a spotter if your view is obstructed.
- Proceed cautiously down the travel path watching for dangerous blind spots.

Stopping

- Select an area to park. Do not park in an unauthorized area. Do not block an aisle or exits. Follow your company's parking procedures.
- Apply brake slowly and stop.
- Neutralize the controls.
- Set the parking brake.
- Turn off the ignition.
- If the truck is parked on an incline, block the wheels.

Operating at Speed Potential Hazards

While traveling, avoid these potential hazards:

- Tip over caused by driving too fast.
- Collision with pedestrians and obstacles caused by inattention and not being able to stop in time.

Requirements and Recommended Practices

Be aware of the travel conditions along your planned route:

- Under all travel conditions the truck must operate at a speed that will permit it to be brought to a stop in a safe manner. [29 CFR 1910.178(n)(8)]
- The driver must slow down for wet and slippery floors. [29 CFR 1910.178(n)(10)]
- The driver must look in the direction of, and keep a clear view of, the path of travel. [29 CFR 1910.178(n)(6)]
- The driver must slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver shall be required to travel with the load trailing. [29 CFR 1910.178(n)(4)]
- While negotiating turns, speed shall be reduced to a safe level by turning the steering wheel in a smooth, sweeping motion. [29 CFR 1910.178(n)(15)].
- Grades shall be ascended or descended slowly. [29 CFR 1910.178(n)(7)].
- When ascending or descending grades in excess of 10 percent, loaded trucks shall be driven with the load upgrade. [29 CFR 1910.178(n)(7)(i)]
- Running over loose objects on the roadway surface shall be avoided.

Steering, Turning and Changing Direction Changing Direction

Potential Hazards

While changing directions, be aware of these potential hazards:

- Tipovers
- Collision with a pedestrian, another vehicle or an object

Requirements and Recommended Practices

- Come to a complete stop before changing directions.
- Use a horn or warning light to warn pedestrians when reversing.

Reversing

Reversing can increase the chances of injury and accident. Use extreme caution when backing up.

Potential Hazards

While backing up or reversing, be aware of these potential hazards:

- Pedestrians being struck by or crushed by the forklift.
- Collision with another forklift or racking.

Requirements and Recommended Practices

- Keep a clear view. [29 CFR 1910.178(n)(6)]
- Look in the direction of travel. When reversing, look behind. [29 CFR 1910.178(n)(6)]
- Be aware of limited visibility, and use extreme caution when driving in reverse.
- Consider the use of ground guides, rear-view mirrors, spotters, or other aids to increase visibility.
- Consider the noise level in your workplace. Do not assume pedestrians or bystanders are able to hear a back-up alarm.
- Allow plenty of room for pedestrians. You cannot anticipate what people will do. Many have no idea how quickly forklifts accelerate and how sharply they turn.
- Never assume pedestrians or bystanders are aware of the presence of heavy equipment and the intended direction of travel.

- Do not grab the overhead guard when traveling in reverse. This could expose the operator's finger to serious injury.

Turning and Steering Potential Hazards

While steering, be aware of these potential hazards:

- Collision with pedestrians or objects due to the forklift's tail swinging to the side opposite the direction of the turn.
- Falling load following collision.
- Tipover caused by turning too sharply.

Requirements and Recommended Practices

- When turning, reduce speed to a safe level. [29 CFR 1910.178(n)(15)]
- Proceed with caution when making turns, especially when working in confined areas or narrow aisles. When the lift truck turns a corner, the rear of the lift truck swings in the opposite direction of the turn.
- Anticipate the rear-end swing and start the turn as close to the inside corner as possible. Plan your route and anticipate turns.
- Never turn with forks elevated.
- Never turn on a grade. The forklift may tipover laterally on even a very small grade.

Traveling on Inclines

Potential Hazards

While traveling on a grade or incline, be aware of these potential hazards:

- Tip over
- Falling load

Requirements and Recommended Practices

- Drive loaded trucks forward going up a ramp with the load upgrade and drive in reverse going down a ramp with the load upgrade.
- Always drive unloaded trucks with the forks downgrade.
- Never drive with the load downgrade.
- Never turn a forklift on a grade.

Parking

An unattended vehicle is a danger to the operator and others unless it is properly secured.

Potential Hazards

While parking and leaving an unattended vehicle, be aware of these potential hazards:

- Danger of an improperly parked truck being struck by personnel or objects.
- Danger of unintended movement of the truck.

Requirements and Recommended Practices

A powered industrial truck is considered "unattended":

- When the operator is 25 ft. or more away from the vehicle even if it remains in his view, or whenever the operator leaves the vehicle and it is not in his view. [29 CFR 1910.178(m)(5)(ii)]
- When a powered industrial truck is left unattended, load engaging means shall be fully lowered, controls shall be neutralized, power shall be shut off, and brakes set. Wheels shall be blocked if the truck is parked on an incline. [29 CFR 1910.178(m)(5)(i)]
- Select a hard, level surface.
- Do not park on a grade, unless wheels are blocked.
- Park in authorized areas only, unless the forklift is disabled. Park a safe distance from fire aisles, stairways or fire equipment. Do not block traffic. [29 CFR 1910.178(m)(14)]
- Fully engage the parking brake.
- Lower the load engaging means (lifting mechanism) fully.
- Neutralize the controls:
  - ✓ Set the direction lever in neutral, and lock the mechanism (if available).
- Tilt the mast forward slightly and lower the forks to the floor until the fork tips touch the floor.
- If the forklift is disabled, and the forks cannot be lowered to the floor, follow proper lockout/tagout procedures. [29 CFR 1910.147] Do not allow anyone to stand or pass under the forks. [29 CFR 1910.178(m)(2)]
- Turn the key to OFF, and stop the engine. Remove the key.
- Get off the forklift without jumping.

Note: *When the operator of an industrial truck is dismounted and within 25 ft. of the truck still in his view, the load engaging means shall be fully lowered, controls neutralized, and the brakes*

set to prevent movement. It is not required that the power be shut off. [29 CFR 1910.178(m)(5)(iii)]

Safe Travel Practices

Complying with safe travel practices and OSHA regulations will improve safety in your workplace.

Potential Hazards

While traveling, be aware of these potential hazards:

- Overturning forklift
- Falling load
- Being struck or crushed by forklift
- Collisions

Requirements and Recommended Practices

- Always look in all directions before proceeding.
- Always look in the direction of travel. If the load blocks your view, travel in reverse. Keep a clear view.
- Observe all traffic regulations, including authorized plant speed limits. Maintain a safe distance, approximately three truck lengths from the truck ahead, and keep the truck under control at all times. [29 CFR 1910.178(n)(1)]
- Yield the right of way to ambulances, fire trucks, or other vehicles in emergency situations. [29 CFR 1910.178(n)(2)]
- Do not pass other trucks traveling in the same direction at intersections, blind spots, or other dangerous locations. [29 CFR 1910.178(n)(3)]
- Cross railroad tracks diagonally wherever possible. Do not park closer than 8 feet from the center of railroad tracks. [29 CFR 1910.178(n)(5)]
- Operate at a speed that will permit the truck to be brought to a stop in a safe manner under all travel conditions. [29 CFR 1910.178(n)(8)]
- Do not engage in stunt driving and horseplay. [29 CFR 1910.178(n)(9)]
- Slow down for wet and slippery floors. [29 CFR 1910.178(n)(10)]
- Properly secure the dockboard or bridgeplates before driving over them. Drive over them carefully and slowly and never exceed their stated capacity. [29 CFR 1910.178(n)(11)]
- Approach elevators slowly and enter squarely after the elevator car is properly leveled. Once on the elevator, neutralize the controls, shut off the power, and set the brakes. [29 CFR 1910.178(n)(12)]
- Separate forklift and pedestrian traffic as much as possible. Use established pedestrian walkways with guard rails and strictly enforce their use.

- Never carry passengers. [29 CFR 1910.178(m)(3)]
- Keep arms or legs inside the confines of your vehicle. [29 CFR 1910.178(m)(4)]
- Watch for surface obstructions; even a small bump can cause a load to fall off elevated forks.
- Never drive up to anyone who is in front of a bench or any other fixed object. [29 CFR 1910.178(m)(1)]
- Do not travel into a position that, if the forklift jumped forward, the brakes failed, or the wrong lever was pushed, a coworker could be pinned between the forklift and another object.

Visibility

Blocked visibility, including partially blocked visibility, increases the chances of accidents. Operators should take measures to minimize the risks.

Potential Hazards

When visibility is impaired, be aware of these potential hazards:

- Collision
- Falling load
- Falling off loading dock
- Worker struck or crushed by forklift

Requirements and Recommended Practices

- Keep a clear view. [29 CFR 1910.178(n)(6)]
- Look in the direction of travel. When reversing, look behind. [29 CFR 1910.178(n)(6)]
- Use spotters, rear view mirrors, or other aids to increase visibility.
- Where available, use concave mirrors when entering buildings or aisles.
- Equip forklifts with headlights where general lighting is less than two lumens per square foot. [29 CFR 1910.178(h)(2)] In general, forklifts should have headlights if working at night, outdoors, or in any area where additional lighting would improve quality.
- Drive slowly into and out of warehouses or other buildings. Going from bright daylight into a darkened warehouse may blind drivers just long enough to hit another worker, vehicle or object.
- Be especially careful on loading docks; stay away from the edge.
- Add physical barriers such as ramps, raised concrete staging areas and heavy- gauge safety chains in front of dock openings. Use protective guard rails.
- Add a "warning track" of yellow paint on the floor near dock openings.

- Slow down and sound the horn at cross aisles and other locations where vision is obstructed.

Tip Over

There are two basic type of tipovers in a forklift:

- A forward tip or longitudinal tip, and
- A lateral or side tip. The procedure to follow in the event of tipover varies depending on the type of tipover and the class of forklifts that you may use in your facility.

In Case Of a Tipover

For tipovers on sit-down counterbalanced trucks:

- Don't jump. Stay in the forklift.
- Hold tight to the steering wheel.
- Brace feet.
- Lean AWAY from the impact.
- Lean forward.

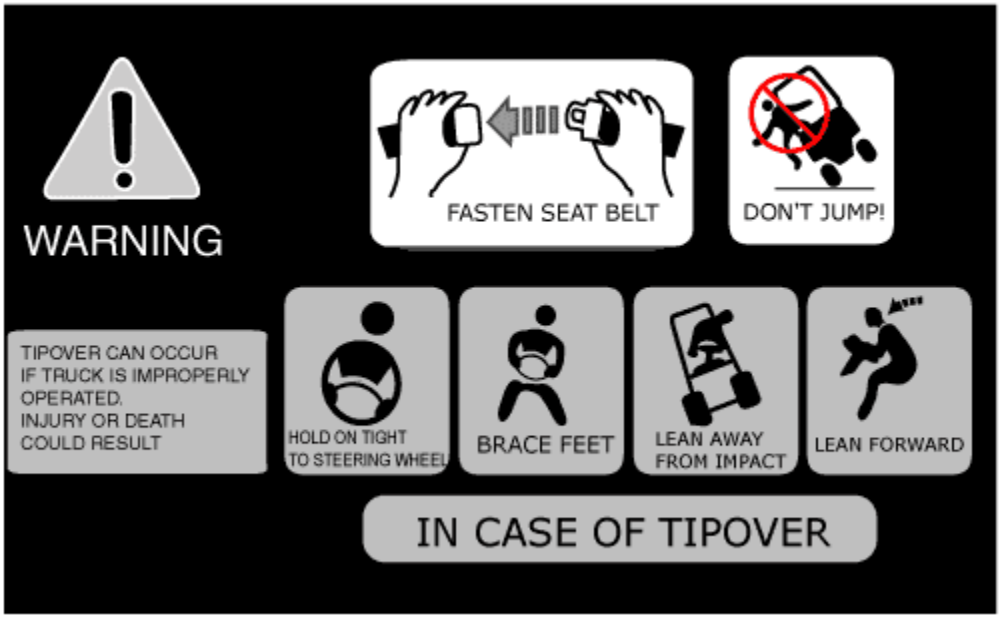


Figure 18. Example of warning label on a powered industrial truck showing actions to take in the event of a tipover of a sit-down counterbalanced truck. Note that the operator's seatbelt should already be fastened.

Note: *Tipover procedures for other types of forklifts may vary. For example operators of stand-up forklifts with rear-entry access should step backwards off the forklift if a tipover occurs.*

Appendix K: Hazard Communication – Right-To-Know Program Sample

A written copy of the _____ *(Municipal Entity Name)* Right-to-Know program is available in each Department and in the _____ *(Human Resource Department or other responsible Department)*. The program is intended to educate employees and establish procedures for evaluating, and controlling the exposure to chemicals used in the workplace.

Employee Rights

The New York State Right-to-Know Law provides explicit rights to employees. These include:

- An employee and/or his/her representative may request, and must receive upon request, information about a hazardous substance in their workplace.
- An employee may refuse to work with a toxic substance if they have requested information about it and the written reply is not received back by the employee within 72 working hours of receipt of request by the employer.
- An employee may exercise any right pursuant to the pertinent laws without fear of any discrimination.
- An employee cannot be required to waive rights under the pertinent laws as a condition of employment.
- An employee may file a complaint against the Employer with the PESHA representative at the NYS Department of Labor Attorney General's Office if the employee has been discriminated against in violation of the law.

Employer Responsibilities

The municipality will:

- Inform employees of their rights under the law by posting a sign in the workplace that informs employees that they have a right to information about the hazards found in the workplace.
- Provide written information to employees upon request concerning the toxic effects of hazardous materials the employee may be exposed to. Specifically, the information to be provided includes:
  - ✓ Name or names of the material, including the generic or chemical name
  - ✓ The trade name of the chemical
  - ✓ The level at which exposure to the material is hazardous, if known
  - ✓ The acute and chronic effects of exposure at hazardous levels

- ✓ The symptoms of such effects
- ✓ The potential for flammability, explosion and reactivity of the material
- ✓ Appropriate emergency procedures
- ✓ Proper conditions for safe use and exposure to the material
- ✓ Procedures for clean-up of leaks and spills

Training

Employees working with hazardous materials will be trained in the use of materials, equipment and controls to support their safety and health. All employees will receive "general program" training. In addition, those employees who work with hazardous materials on a regular basis will receive "job-specific" training relative to those materials.

The employees will receive training:

- Before initial assignment or
- When transferred to a new position if exposure has changed.
- Anytime the exposure to hazardous material is altered.

General Program Training

All employees will receive training on the Written Hazard Communication Program which including:

- Employee Rights
- Employer Responsibilities
- Concepts in Toxicology
- Emergency Response/Evacuation Plans
- How to Read and Use SDS
- Labeling Requirements
- Overview of Chemical Classification Definitions Information Sources
- The location of the Hazard Communication Program
- The location of SDS's and Inventory

Job Specific Training

Employees regularly exposed to hazardous materials will receive more in-depth training beyond the topics listed above including:

- The location of hazardous materials to which the employee may be exposed

- The labeling requirements
- The name(s) of the hazardous materials, including the generic or chemical name(s)
- The trade name of the chemical and any other commonly used name
- Hazardous chemical properties including visual appearance, odor and methods that can be used to detect the presence or release of hazardous chemicals.
- The acute and chronic effects of exposure at hazardous levels
- The symptoms of effects of the exposure at hazardous levels
- The potential for flammability, explosion and reactivity of such substance
- Procedures to protect against hazards (engineering controls, personal protective equipment, work practices, emergency procedures)
- Appropriate emergency treatment
- Proper handling procedures for each chemical classification of hazardous material
- Procedures for clean-up of leaks and spills of hazardous materials

List of Hazardous Chemicals

The _____ *(insert name or department position responsible)* will maintain a list of all hazardous chemicals used in the department. This list will be updated when new hazardous chemicals are brought into the department. The list of hazardous chemicals is maintained with the safety data sheets (SDS's).

Safety Data Sheets (SDS's)

The _____ *(insert name or department position responsible)* will maintain an SDS files covering the list of hazardous chemicals. The SDS's will be readily available for employee use and will be located at _____ *(Location of SDS for each Department)*.

_____ (Insert name or department position responsible) is responsible for acquiring and updating SDS's that are received in the Department either prior to or at the same time of the first shipment of the new chemical being used. It may be necessary to discontinue procurements from vendors failing to provide SDS's in a timely manner.

Labels and Other Warnings

The _____ *(Department Manager)* is designated to ensure that all hazardous chemicals in the department are properly labeled.

- Labels should list at least the chemical identity, appropriate hazard warnings, and the name and address of the manufacturer, importer or other responsible party. The corresponding SDS will be used to verify label information.
- All chemicals will be stored in their original or approved containers with a proper label attached, except small quantities for immediate use. Any container not properly labeled should be given to the Supervisor for labeling or proper disposal.
- All in-house containers must be labeled with the identity of the product and the hazard warning. The manufacturers label should be used as a guide.
- Employees may dispense chemicals from the original container only in small quantities intended for immediate use. Any chemical left after work is completed must be returned to the original container or the supervisor for proper handling.
- No unmarked containers of any size are to be left in the work area unattended.
- The municipality will rely on manufacturer applied labels whenever possible, and will ensure that these labels are maintained.

Contractors

The _____ *(Department Manager or Project Supervisor)* will advise outside contractors of any chemical hazards which may be encountered in the normal course of their work on municipal projects, provide copies of appropriate SDS's for the contractors use, and will inform the contractor of the labeling system used in the workplace.

Each contractor bringing chemicals on-site must provide the municipal _____ *(Department Manager or Project Supervisor)* with the appropriate hazard information on these substances, including the labels used and the precautionary measures to be taken in working with these chemicals.

Non Routine Tasks

Anyone contemplating a non-routine task (i.e. – boiler repair, entry into a confined space, etc.) will consult with _____ *(Department Manager or Project Supervisor)* to ensure that employees are informed of chemical hazards associated with the performance of these tasks and the appropriate protective

measures. This will be accomplished by a meeting of supervisors and affected employees before such work begins.

Additional Information

Further information on this hazard communication program and applicable SDS's are available by contacting the _____ *(Department Manager and/or the Human Resources Department)*.

Assignment of Responsibilities

It will be the responsibility of the _____ to coordinate training upon initial assignment, transfer, annual and new hazardous material training takes place.

It will be the responsibility of the _____ to conduct General Program training.

It will be the responsibility of the _____ to conduct Job-Specific training programs.

Administrative Responsibility	Person Responsible
Employee Exposure Records	_____
Employee Training Records	_____
Inventory of Chemical Materials	_____
Determination that material is hazardous	_____
Labeling of hazardous materials	_____
Maintaining MSDS/SDS	_____

Chemical Inventory

Chemical Product Name	Location	Quantity

Appendix L: Hearing Conservation Sample Program

Objective

The objective of the _____ *(Municipal Entity Name)* Hearing Conservation Program is to minimize occupational hearing loss by providing hearing protection, training, and annual hearing tests to all employees working in areas or with equipment that have noise levels equal to or exceeding an eight-hour time-weighted average (TWA) sound limit of 85 dBA. A copy of this program and a copy of the NYPESH/OSHA Hearing Conservation Standard are available at _____ *(Department Name)*. A copy of the standard will also be posted in areas with affected employees.

Assignment Of Responsibility

Management

- Use engineering and administrative controls to limit employee exposure.
- Provide hearing protection for employees.
- Post signs and warnings in all high noise areas.
- Conduct initial noise surveys and when new equipment is introduced.
- Conduct annual hearing test for all employees.
- Conduct hearing conservation training for all new employees.
- Conduct annual hearing conservation training for all employees.

Employees

- Use hearing protection provided by _____ in designated high noise areas.
- Request new hearing protection when needed.
- Store and maintain issued hearing protection.

Procedures

Noise Monitoring

- Monitoring for noise exposure levels will be conducted by _____ (Responsible person, insurance carrier or subcontractor).
- It is the responsibility of the individual departments to notify _____ *(Human Resources or Responsible Individual)* when there is a possible need for monitoring.
- Monitoring will be performed with the use of sound level meters and personal dosimeters as needed.

Employee Training

Affected employees will be required to attend training concerning the proper usage and wearing of hearing protection. The training will be conducted by _____ *(Responsible Person or a designated representative)* within a month of hire and annually thereafter.

Training shall consist of the following components:

- How noise affects hearing and hearing loss
- Review of the OSHA hearing protection standard
- Explanation of audiometric testing
- Rules and procedures
- Locations and tasks throughout the municipality where hearing protection is required
- How to use and care for hearing protectors

Training records will be maintained by _____ *(Responsible Person)*.

Hearing Protection

- Management, supervisors, and employees are expected to wear the prescribed hearing protection while working or traveling through any area that is designated as a high noise area.
- Hearing protection will be provided at no cost to employees who perform tasks designated as having a high noise exposure and replaced as necessary.
- Employees will have the opportunity to choose from at least two different types of hearing protection.
- It is the supervisor's responsibility to encourage employees to wear hearing

protection when noise levels are 85 – 90 dBA.

- It is the supervisor's responsibility to enforce the use of hearing protection when noise levels exceed 90 dBA.
- Personal headsets are not permitted in any area during any tasks that have been identified as a potential noise exposure area.
- Signage is provided in areas that necessitate hearing protection.
- Preformed earplugs and earmuffs should be washed periodically and stored in a clean area.
- Foam inserts should be discarded after each use. Hands should be washed before handling preformed earplugs and foam inserts to prevent contaminants from being placed in the ear.
- _____ *(Responsible person)* will keep a log of the areas or job tasks designated as requiring hearing protection, as well as the personnel affected by this Hearing Conservation Program.

Audiograms/Hearing Tests

- Employees subject to the Hearing Conservation Program who have time-weighted average (TWA) noise exposures of 85 dBA or greater for an eight (8) hour work shift will be required to have both a baseline and annual audiogram.
- The audiograms will be provided by the free of charge by the _____ *(Municipal Entity Name)* and conducted by _____ *(Name of Audiometric Testing Company)*.
- The baseline audiogram will be given to an employee within one (1) month of employment and before any exposure to high noise levels.
- Annual audiograms will be performed within one year from the date of the previous audiogram. It is the responsibility of _____ *(Human Resources or Responsible Department)* to schedule the annual audiogram.
- If an annual audiogram shows that an employee has a standard threshold shift, the employee will be retested within thirty (30) days of the annual audiogram. If the retest confirms the occurrence of a standard threshold shift, the employee will be notified in writing within twenty-one (21) days of the confirmation.
- Employees who do experience a standard threshold shift will be refitted with hearing protection, provided more training on the effects of noise, and the use of hearing protection will be mandatory in work areas of potentially high noise exposure.

Hearing Conservation Training Log

Training Date: _____

Topic: _____

Training Conducted by: _____

Employee Name (printed)	Employee Signature	Job Title

Record of Hearing Protection Needs

_____

(Municipal Entity Name)

Date: _____

Personnel in Hearing Conservation Program				
Hearing protection is required for and has been issued to the following personnel:				
Employee Name	**School and Department**	**Job Description/ Equipment Being Used**	**Type of Hearing Protection Issued**	**Date Issued**

Appendix M: Sample Laboratory Chemical Hygiene Program

AS PER 29CFR1910.1450

This laboratory chemical hygiene plan is intended only to serve as a sample, a means of assisting you in devising your own plan. Use of this sample does not guarantee compliance with all state and federal standards.

Your plan must be tailored to the specific conditions and situations encountered in your laboratory. Such a plan is required by OSHA Standard 29 CFR 1910.1450.

Laboratory Chemical Hygiene Plan

Introduction

The _____ *(Municipal Entity or Department Name)* operates a laboratory to support the testing of water and wastewater. The following plan describes the safety and health considerations established a plan to protect employees from health hazards associated with hazardous chemicals in the laboratory.

A copy of this plan and any questions regarding this plan should be directed to _____ *(Name of responsible person/department)*. The Chemical Hygiene Officer is the person responsible for implementation of this plan is _____ *(Name of responsible person/department)*.

A review and evaluation of this program is conducted on an annual basis and updated as necessary.

Standard Operating Procedures

For laboratory work at _____ *(Municipal Entity or Department)* which involves the use of hazardous chemicals, standard operating procedures (SOP) have been addressed in order to reduce potential safety and/or health hazards caused by such use. These procedures include various engineering control measures such as laboratory fume hoods, maintenance procedures for these engineering controls including testing proper function of such equipment, the use of appropriate Personal Protective Equipment (PPE) and maintenance of such equipment.

The specific procedures implemented by _____ *(Municipal Entity Name or Department)* are as follows:

Note: *These are general procedures of laboratory operation which you likely already have in effect. Insert the specific laboratory procedures here or refer to them and attach as an Appendix.*

- Accident, spills
- Avoidance of routine exposure
- Choice of chemicals
- Eating, drinking, smoking, etc.
- Equipment and glassware
- Exiting
- Horseplay
- Personal housekeeping
- Personal protection

- Planning
- Unattended operations
- Use of hood
- Vigilance
- Waste disposal and storage
- Working alone
- Corrosive agents
- Electrically powered laboratory apparatus
- Fire, explosions
- Low temperature procedures
- Pressurized and vacuum operations
- Compressed gases
- Chemical Storage

Criteria for Use Of Control Measures To Reduce Employee Exposure To Hazardous Chemicals

_____ *(Municipal Entity of Department)* has made an initial determination of employee's potential exposure to any hazardous chemical used in the laboratory which requires monitoring if there is reason to believe exposure levels for substances routinely exceed the Action Level or in the absence of an OSHA Action Level, the Permissible Exposure Limit (PEL) or the ACGIH Threshold limit Value (TLV). If initial monitoring indicates employee exposure over the Action Level, Permissible Exposure Limit or Threshold Limit Value exposure monitoring and cessation of monitoring shall be in accordance with the relevant OSHA Standard.

_____ *(Municipal Entity or Department Name)* notifies employees of exposure monitoring results in writing either individually or by posting results in _____ *(Accessible Location)* within fifteen (15) working days after receipt of monitoring results.

Control Measures

- The following operations shall be performed in **LABORATORY FUME HOODS:**

_____

_____

- The following operations shall be performed in **BIOLOGICAL SAFETY CABINETS:**

_____

_____

- The following operations shall be performed in **GLOVE BOXES**:

_____

_____

- Where the use of respirators is determined to be necessary to maintain exposure below permissible limits, appropriate respiratory protection shall be provided at no cost to employees. Respirators shall be selected and used in accordance with the respiratory protection policy of _____ *(Municipal Entity or Department Name)*. This policy and associated documentation is filed _____ *(Location)* for employee review.

- Appropriate protective apparel compatible with the required degree of protection for substances handled shall be used _____ *(Name of responsible person or department)* will advise employees on use of glove, apron, gown, eye protection, barrier creams, etc.

- Employees will be instructed on the location and use of eye wash stations and safety showers. _____ *(Name of responsible person or department)* is responsible for this instruction.

- Employees will be trained _____ *(Insert how often)* on the use of fire extinguishers and other fire protection systems.

Maintenance Of Fume Hoods And Other Protective Equipment

Fume hoods will be inspected every _____ months by _____ *(Name of responsible person or department)*; adequacy of face velocity will be determined by _____ *(insert method)*; reports of hood inspections are filed _____ *(insert location/department)* for employee review.

Note: *Repeat the above for each additional major category of protective equipment, such as safety cabinets ventilation of storage cabinets, interlocks on high voltage equipment, safety showers, eye wash station etc. including how often they are inspected, by whom, what is measured, and where the inspection records and checklists are filed.*

Employee Information & Training Requirements

_____ *(Municipal Entity of Department*) provides employees with information and training on hazardous chemicals in their work area, at the time of initial assignment, and prior to assignments involving new exposure situations to ensure employees are aware of the hazards of chemicals present in their work area. Initial information and training sessions for new employees are conducted by _____ *(Name of responsible person or department).*

The following information is conveyed to employees:

- The contents of the Occupational Exposure to Hazardous Chemicals in Laboratories Standard 29CFR1910.1450 and its appendices;
- The location and availability of the Chemical Hygiene Plan;
- The signs and symptoms associated with exposures to hazardous chemicals used in the laboratory;
- Information on OSHA permissible exposure limits (PELs) where they exist, and other recommended exposure limits; and
- Location and availability of known reference material on the hazards, safe handling, storage and disposal of hazardous chemicals found in the laboratory including, but not limited to, Material Safety Data Sheets (MSDS) received from chemical suppliers.

In addition to above information, employees are trained on the following:

- Methods & observations which may be used to detect the presence or release of a hazardous chemical in the work area (monitoring methods and devices, visual appearance and/or odor, etc.);
- The physical and health hazards of chemicals in laboratory work areas; and

- The measures to protect employees from these hazards, including:
- Standard operating procedures
- Work practices
- Emergency procedures
- Personal protective equipment
- Details of the chemical hygiene plan

The outline for the training material is located _____
(list where the training materials are located).

Note: *List here if training will be conducted using videotapes, written material, etc. Also, the employer should indicate who is responsible for conducting the training as well as the qualifications of the trainer(s).*

_____ *(Name of responsible person or department)* is responsible for developing the standard operating procedures (SOPs).

_____ *(Name of responsible person or department)* is responsible for the portion of training on standard operating procedures.

Prior Approval For Specific Laboratory Operations

Certain laboratory procedures which present a serious chemical hazard require prior approval by _____ *(Name of responsible person or department*) before work can begin.

For this facility, these procedures include *(List any that may apply; consider the physical as well as health hazards in determination)*:

-
-
-

The chemicals include *(insert a list of the acutely hazardous chemicals, e.g., chlorine gas)*:

-
-
-

Note: *If the laboratory does not utilize these classes of chemicals, then include a sentence which states "Our laboratory does not at this time use any chemicals which are sufficiently hazardous to require prior approval before they are use".*

Additional Protection For Work With Select Carcinogens, Reproductive Toxins, And Chemicals With High Acute Toxicity

In general, our water and wastewater laboratory does not work with carcinogens or reproductive toxins.

When any of these chemicals are used, the following provisions shall be employed where appropriate:

- Establishment of a designated area;
- Use of containment devices such as fume hoods or glove boxes;
- Procedures for safe removal of contaminated waste; and
- Decontamination Procedures.

Appendix A of the standard has detailed programs for working with these chemicals. If you are using them, refer to Appendix A as a guide for your detailed procedures.

Medical Program

_____ *(Municipal Entity Name or Department)* provides all employees who work with hazardous chemicals an opportunity to receive medical attention, including any follow-up examinations which the examining physician determines to be necessary, for the following circumstances:

- Whenever an employee develops signs or symptoms associated with a hazardous chemical to which the employee may have been exposed in the laboratory, the employee is provided an opportunity to receive an appropriate medical examination. The employee shall contact the Chemical Hygiene Officer to initiate the medical program.

- Where exposure monitoring reveals an exposure routinely above the action level, or in the absence of an action level above the Permissible Exposure Limit (PEL), for an OSHA regulated substance for which there are exposure monitoring and medical surveillance requirements. Medical Surveillance shall be established for the affected employee as prescribed by the particular OSHA Standard. (Medical Surveillance & Exposure requirements as per 29CFR1910.1001 through 29CFR1910.1052)

  Currently our laboratory uses:
  _____ *(e.g., chlorine gas)*
  _____ *(e.g., sulfuric acid)*
  _____ *(List other substances covered)*

- Whenever an event takes place in the work area such as a spill, leak, explosion or other occurrence resulting in the likelihood of a hazardous chemical exposure, the effected employee(s) is provided an opportunity for a medical consultation. This consultation is for the purpose of determining the need for a medical examination. An appropriate medical examination is provided as necessary.

All medical examinations and consultations are performed by or under direct supervision of a licensed physician, are provided at no cost to employees without loss of pay and at a reasonable time and place.

Information Provided to Healthcare Professional

_____ (Name of responsible person or department) will provide the physician the following information:

- The identity of hazardous chemical(s) to which the employee may have been exposed to;
- A description of the conditions under which the exposure occurred including quantitative exposure data, if available; and
- A description of the signs and symptoms of exposure the employee is experiencing, if any.

Healthcare Professional's Written Opinion

A written opinion from the examining physician for a medical examination or consultation will include*:*

- Any recommendation for further medical follow-up;
- The results of the medical examination and any associated tests;
- Any medical condition that may be revealed in the course of the examination which may place the employee at increased risk as a result of exposure to a hazardous chemical found in the workplace; and
- A statement that the employee has been informed by the physician of the results of the consultation or medical examination and any medical condition that may require further examination or treatment.

The written opinion shall not include any findings/diagnoses which is not related to an occupational exposure.

Hazard Identification

Labels and Material Safety Data Sheets (MSDS) are provided by the chemical supplier and are maintained by_____ *(Responsible individual) who also* assures labels on incoming containers of hazardous chemicals are not removed or defaced and Material Safety Data Sheets that are received with incoming shipments of hazardous chemicals are maintained and readily accessible to laboratory employees.

For chemical substances developed in the laboratory, the following procedures have been implemented for the following circumstances:

- For known composition for chemical substances produced exclusively for laboratory use which are determined to be hazardous, the appropriate training is provided;
- For unknown composition of chemicals produced as a by-product, the substance is assumed to be hazardous and the appropriate standard procedures are implemented;
- For chemical substances produced for another user outside of the laboratory, _____ *(Municipal Entity Name or Department)* complies with the Hazard Communication Standard 29CFR1910.1200, including the requirements of preparation of Material Safety Data Sheets and labeling.

Emergency Response

There are two additional OSHA standards which interface with the Chemical Hygiene Plan; 1910.38 Employee Emergency Plans and Fire Prevention Plans, and 1910.120(p) and (q) Hazardous Waste Operations and Emergency Response (developed in response to SARA Title III). Align the emergency response procedures with other that exist for the workplace and develop appropriate emergency procedures for your facility.

Recordkeeping

_____ *(Municipal Entity Name or Department)* establishes and maintains for each employee an accurate record of any measurements taken to monitor employee exposure and any medical consultation and examinations including tests or written opinions as required by the Standard. These records are kept, transferred, and made available in accordance with 29CFR1910.20, Access to Employee Exposure and Medical Records.

Appendix N: Sample Lockout and Tagout Program

Purpose

The purpose of these instructions is to ensure that before any employee or subcontractor performs service or maintenance on machinery or equipment, the machinery or equipment will be rendered safe to work on by being locked/tagged out. This includes where the unexpected energizing, startup, or release of any type of energy could occur and cause injury. Examples of equipment and machinery that require lockout/tagout at _____*(Municipal Entity or Department Name)* site include *(Insert site specific examples some examples are included below):*

- Compactors
- Air Compressor
- Fuel Dispensing Pumps
- Rooftop Air handling units
- Tire Changer
- Pressure Washer

General Information

All equipment and machinery is to be locked/tagged out to protect against accidental or inadvertent operation during any servicing or maintenance activity. Anyone operating or attempting to operate any switch, valve, or other energy isolating device that is locked/tagged out will be disciplined.

To initiate a request for equipment service the employee must fill out an Equipment Maintenance/Repair Report and distribute it as follows *(Insert names or responsible position here)* _____.

Lockout/Tagout Procedures

This procedure establishes the minimum requirements for the lockout/tagout of energy isolating devices. Specific procedures for control of hazardous energy sources must be developed for any equipment or machinery before any maintenance or servicing is performed. Equipment is to be evaluated with specific lockout/tagout procedures documented on the lockout/tagout procedure sheets.

Responsibility

Any employee who could be exposed to hazardous energy sources is to be instructed in the safety significance of the lockout/tagout procedure. Employees authorized to perform lockout/tagout receive training commensurate with their responsibilities.

Preventative maintenance is performed on a scheduled basis for the major pieces of equipment. In some cases the Authorized person(s) performing the service and maintenance may be a subcontractor. Additionally, the following job classifications have been authorized to perform lockout/tagout procedures on equipment *(Insert positions below)*:

-
-

Prior to lockout/tagout, the _____ (*Name of responsible individual or position)* will brief all Affected Employees. In the event of a tagout system only, the Authorized individual will also brief all other personnel potentially exposed to the hazard.

Preparation for Lockout/Tagout

- The Authorized Employee reviews the lockout/tagout procedure sheet.
- The employee must locate and identify all isolating devices and be certain which switch(es), valve(s), or other energy isolating devices apply to the equipment to be locked/tagged out. More than one hazardous energy source and/or means of disconnect (electrical, mechanical, pneumatic or other) may be involved.
- If specific procedures have not been developed and documented, they are to be developed and documented before work is begun.
- No work can proceed until the _____ *(Responsible/knowledgeable person)* writes and provides the Authorized person with a specific procedure.

Lockout/Tagout System Procedure

- Notify all Affected Employees that a lockout/tagout system is going to be utilized and the reason for the lockout/tagout. The Authorized Employee must know the type and magnitude of energy that the machinery or equipment utilizes and understand its hazards.
- If the machinery or equipment is operating, shut it down by the normal stopping procedure. This is usually done by depressing the stop button, opening the toggle switch, etc. In addition, ensure that all stored energy is dissipated or properly restrained.

- Operate the switch, valve, or other energy isolating device(s) so that the equipment is isolated from its energy source(s).

Lockout/Tagout Device Application

- Locks/tags are to be affixed to each energy isolating device only by an "Authorized Employee."
- Locks/tags are to be installed by _____ (Responsible individual).
- Locks are to be affixed in a manner that will hold the energy isolating devices in a safe or off position.
- Tags, when used, are to be affixed in a manner that will clearly indicate that the operation or movement of the energy isolating device from the safe or off position is prohibited.
- Tags that cannot be affixed directly to the energy isolating device are to be located as close as safely possible to the device and in a position that will be immediately obvious to anyone attempting to operate the device.
- All potentially hazardous stored or residual energy is to be relieved, disconnected, restrained, or otherwise rendered safe. If there is a possibility of re-accumulation of stored energy to a hazardous level, verification of isolation shall continue until the possibility of accumulation no longer exists.
- After ensuring that no personnel are exposed, operate the push button or other normal operating controls to make certain the equipment will not operate.

*CAUTION: RETURN OPERATING CONTROL(S) TO NEUTRAL **ON** OR **OFF** POSITION AFTER THE TEST*

- The equipment is now locked/tagged out.

Testing or Positioning Of Machines, Equipment or Components

- Clear the machine or equipment of tools and materials.
- Clear employees from the machine or equipment area.
- Remove the lockout/tagout devices.
- Energize and proceed with testing or positioning.
- De-energize all systems and re-apply energy control measures in accordance with the requirements set forth in this instruction.

Restoring Machines or Equipment to Normal Production Operations

- After the servicing and/or maintenance are complete and equipment is ready for normal production operations, check the area around the machine or equipment to ensure that no one is exposed.

- After all tools have been removed from the machine or equipment, guards have been reinstalled, and employees are in the clear, remove all lockout/tagout devices and notify the "Affected" employees of their removal. Operate the energy isolating devices to restore energy to the machine or equipment.

Procedure Involving More Than One Person

In the preceding steps, if more than one individual is required to lockout/tagout equipment, each is to place his/her own assigned lockout/tagout device on the energy isolating device(s). If an energy isolating device cannot accept multiple locks/tags, a multiple lockout/tagout device (hasp) may be used. If lockout is used, a single lock may be used to lockout the machine or equipment with the key being placed in a clock-out box or cabinet that allows the use of multiple locks to secure it. Each employee will then use his/her own assigned lock to secure the box or cabinet. As each person no longer needs to maintain his/her lockout protection, that person will remove his/her lock from the box or cabinet.

Removal Of Lockout/Tagout Devices By Other Than The Authorized Employee

Lockout/Tagout devices are to be removed from each energy, isolating device by the employee who applied it, except:

- Lockout/Tagout devices may be removed by the _____ *(Responsible individual or position)* if the Authorized Employee who applied it is not available, *and:*
  - ✓ It is verified that the Authorized Employee who applied the device is not at the facility.
  - ✓ All reasonable efforts were made to contact the Authorized Employee to inform him/her that his/her lockout/tagout device has been removed.
  - ✓ The Authorized Employee has this knowledge before he/she resumes work at that facility.

Informing Outside Contractors

The _____ *(Responsible individual or position)* will initially inform all outside contractors of the elements of this program and obtain information regarding their lockout/tagout programs.

Anytime a Contractor arrives onsite to perform work the _____ *(Responsible individual or position)* will work directly the Contractor on the specific lockout/tagout procedures. The Contractor will be required to initial the lockout/tagout

procedure sheet as acknowledgement that they have reviewed and understand the procedures.

Shift or Personnel Changes

In the case of shift or personnel changes, a changeover period will be established so that the Authorized Employees may exchange their assigned locks/tags. Authorized Personnel assuming control of lockout of equipment shall be fully briefed in the scope and strategy of the work by those who are being relieved.

Periodic Inspections

Periodically (at least annually) the effectiveness of the entire program will be evaluated by the _____ *(Responsible individual or position)*. Any deviations or inadequacies shall be documented and corrected. The inspection will be documented and records kept by the _____ *(Responsible individual or Department)*.

TRAINING

Training is provided to all Authorized, Affected, and other personnel. In addition, a copy of the standard is located in _____ *(Insert location)*, and is available during the training and at any time during working hours.

The _____ *(Responsible and knowledgeable person)* will conduct training sessions, and prepare a record to verify that the employee training has been accomplished. The _____ *(Responsible and knowledgeable individual)* will conduct retraining whenever there is a change in the job assignments, a change in machines, equipment, or processes that present a new hazard.

Electrical Lockout/Tagout

Electrical work requires that a lock and a tag be used together. However, a tag can be used by itself if the electrical disconnecting source does not have lockout capabilities. Locks can be placed without a tag only under the following conditions:

- Only one circuit or piece of equipment is de-energized.
- The lockout period does not extend beyond the work shift.
- Employees exposed to the hazards associated with re-energizing the circuit or equipment is familiar with this procedure.

Electrical Test Verification of De-Energized Circuits

All high voltage work is performed by _____ *(Insert Contractor or qualified employees name/position)*. The _____ *(Insert Contractor or qualified employees name/position)* is to test equipment, circuit elements and electrical parts of equipment to which employees will be exposed and shall verify that the circuit elements and equipment parts are de-energized. The test is to determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage back-feed, even though specific parts of the circuit have been de-energized and presumed to be safe. If the circuit to be tested is over 600 volts, nominal, the test equipment shall be checked for proper operation immediately before and immediately after this test.

Work On Energized Circuits

Approval must be obtained from the _____ *(Responsible and knowledgeable individual name or position)* prior to any work on energized circuits. _____ *(Responsible and knowledgeable individual name or position)* will verify that by de-energizing circuits, it will create additional or increased hazards or it is not feasible due to equipment design or operational limitations.

Note: *Working on energized parts requires the wearing of appropriate personal protective equipment.* _____ *(Responsible and knowledgeable individual name or position) working in conjunction with the Electrical Contractor will be responsible for specifying the appropriate personnel equipment to be used.*

Accidents Concerning Louckout/Tagout

_____ *(Municipal Entity Name)* will use a team approach for investigating all lockout/tagout accidents and reporting the cause of such accidents to the _____ *(Name of Individual or Department)*. If the accident involved a specific procedure for a piece of equipment, the lockout/tagout specific procedure will be evaluated and modified (if necessary) prior to authorizing work to continue.

Example Lockout/Tagout Procedure Sheet

Equipment: Air Compressor

Location: Garage Storage Loft

Type of Energy Source and Description:

- Electrical
- Pneumatic
- Thermal Authorized Employees:
- Mechanic
- Mechanic Helper

Affected Employees/Department:

- Anyone working in and around the Garage area.

Hazardous Stored Energy Condition to Avoid:

- Live electrical supply.
- Compressed air stored inside the unit and hoses and plumbing systems.
- Hot parts associated with the running of the equipment.

Method of Lockout:

- Turn off electrical system at circuit breaker.
- Release trapped air pressure in lines.
- Wait until equipment has cooled down prior to beginning work.

Verify Lockout by:

- Visually verify that the circuit has been shut off and locked out.
- Open nozzle on associated hoses to verify there is no trapped pressure.

Appendix O: Personal Protective Equipment Hazard Assessment

Company Name:	Location:	Job Task(s):	
HAZARD	**SELECTION OF PPE**	**HAZARD SEVERITY**	**MISHAP PROBABILITY**
EYE/FACE ___ Flying Objects ___ Splash (Metals) ___ Dusts ___ Mists ___ Gas Welding *(Shade 4-8)* ___ Cutting/Torch *(Shade 3-6)* ___ Brazing *(Shade 3-4)* ___ Weld/Electric *(Shade 10-14)* Other: _____	___ Spectacle ___ Spectacle with Side Shield ___ Face Shield ___ Goggles ___ Sealed Goggles ___ Welding Helmet ___ Welding Shield Other: _____	___ CAT I: Catastrophic *Hazard may cause death* ___ CAT II: Critical *May cause severe injury, severe illness or disability* ___CAT III: Marginal *May cause minor injury or minor illness* ___ CAT IV: Negligible *Probably would not cause injury or minor illness*	___ A Likely to occur immediately or within a short period of time ___ B Probably will not occur in time ___ C May occur in time ___ D Unlikely to occur

HAZARD	SELECTION OF PPE	HAZARD SEVERITY	MISHAP PROBABILITY
HEAD ___ Falling Objects ___ Electrical Shock	___ Class A *(<2,000 volts)* ___ Class B *(>2,000 volts)* ___ Class C *(Conductive)*	___ CAT I: Catastrophic ___ CAT II: Critical ___ CAT III: Marginal ___ CAT IV: Negligible	___ A ___ B ___ C ___ D
FOOT ___ Falling Objects ___ Rolling Objects ___ Piercing Sole ___ Electrical Hazard ___ Metatarsal Protection	___ Safety Tip Shoes ___ Safety Shoes with Metatarsal Protection Other:	___ CAT I: Catastrophic ___ CAT II: Critical ___ CAT III: Marginal ___ CAT IV: Negligible	___ A ___ B ___ C ___ D
HAND ___ Chemical Sorption ___ Chemical Burns ___ Abrasions ___ Punctures ___ Thermal Burns ___ Temperature Extremes	___ Leather Gloves ___ Kevlar Gloves ___ Cryogenic Gloves ___ Chemical Gloves Material: _____ Other: _____ *(Cloth gloves are also acceptable)*	___ CAT I: Catastrophic ___ CAT II: Critical ___ CAT III: Marginal ___ CAT IV: Negligible	___ A ___ B ___ C ___ D

Appendix P: Part 801 - Recording and Reporting Public Employees' Occupational Injuries and Illnesses

Part 801

Recording and Reporting Public Employees' Occupational Injuries and Illnesses

(Statutory authority: Labor Law § 27-a)

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801.5	Determination of Work-Relatedness
801.6	Determination of New Cases
801.7	General Recording Criteria
801.8	Recording Criteria for Needlestick and Sharps Injuries
801.9	Recording Criteria for Cases Involving Medical Removal Under PESH Standards
801.10	Recording Criteria for Cases Involving Occupational Hearing Loss
801.11	Recording Criteria for Work-Related Tuberculosis Cases
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801.32	Annual Summary
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801.36 Reserved
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801.39 Reporting Fatalities and Multiple Hospitalization Incidents
801.40 Providing Records to Government Representatives
801.41 Annual DOSH Injury and Illness Survey
801.42 Requests from the Bureau of Labor Statistics for data
801.43 Reserved
801.44 Retention and Updating of Old Forms
801.45 Reserved
801.46 Definitions
801.47 Posters for Public Employees

§801.0 Purpose

This Part implements Labor Law, section 27-a, subdivision 9, which provides for recordkeeping and reporting by public employers as necessary or appropriate for enforcement of Labor Law, section 27-a, for developing information regarding the causes and prevention of occupational injuries and illnesses, and for making public periodic reports of work-related deaths, injuries and illnesses.

§801.1 Reserved

§801.2 Reserved

§801.3 Reserved

§801.4 Recording Criteria

a) Each employer required by this Part to keep records of fatalities, injuries, and illnesses must record each fatality, injury and illness that:

(1) is work-related; and

(2) is a new case; and

(3) meets one or more of the general recording criteria of section 801.7 or the application to specific cases of sections

(4) 801.8 through 801.12.

§801.5 Determination of Work-Relatedness

a) The Employer must consider an injury or illness to be work-related if an event or exposure in the work environment either caused or contributed to the resulting condition or significantly aggravated a pre-existing injury or illness. Work-relatedness is presumed for injuries and illnesses resulting from events or exposures occurring in the work environment, subject to certain restrictions set forth in section 901.5 of SH901 Instructions for Recording and Reporting Public Employees' Occupational Injuries and Illnesses and accompanying Forms SH900, SH90.1 and SH900.2.

§801.6 Determination of New Cases

a) The employer must consider an injury or illness to be a "new case" if:

(1) the employee has not previously experienced a recorded injury or illness of the same type that affects the same part of the body; or

(2) the employee previously experienced a recorded injury or illness of the same type that affected the same part of the body but had recovered completely (all signs and symptoms had disappeared) from the previous injury or illness and an event or exposure in the work environment caused the signs or symptoms to reappear.

§801.7 General Recording Criteria

a) The employer must consider an injury or illness to meet the general recording criteria, and therefore to be recordable, if it results in any of the following: death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, or loss of consciousness. The employer must also consider a case to meet the general recording criteria if it involves a significant injury or illness diagnosed by a physician or other licensed health care professional, even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness.

§801.8 Recording Criteria for Needlesticks and Sharps Injuries

a) The employer must record all work-related needlestick injuries and cuts from sharp objects that are contaminated with another person's blood or other potentially infectious material (as defined by 29 CFR 1910.1030). The employer must enter the case on the SH 900 Log as an injury. To protect the employee's privacy, the employer must treat needlestick injuries and cuts from sharp objects that are contaminated with another person's blood, or other potentially infectious material, as a "Privacy Concern Case" as defined in section 801.29 (b) and (c).

§801.9 Recording Criteria for Cases Involving Medical Removal Under PESH Standards

a) If an employee is medically removed under the medical surveillance requirements of a PESH standard, the employer must record the case on the SH 900 Log.

§801.10 Recording Criteria for Cases Involving Occupational Hearing Loss

a) If an employee's hearing test (audiogram) reveals that the employee has experienced a work related Standard Threshold Shift (STS), as defined in the instructions, and the employee's total hearing level is 25 decibels (dB) or more above the audiometric zero (averaged at 2000, 3000, and 4000 Hz) in the same ear(s) as the STS, the employer must record the case on the SH 900 Log.

§801.11 Recording Criteria for Work-Related Tuberculosis Cases

a) If any of the employer's employees has been occupationally exposed to anyone with a known case of active tuberculosis (TB), and that employee subsequently develops a tuberculosis infection, as evidenced by a positive skin test or diagnosis by a physician or other licensed health care professional, the employer must record the case on the SH 900 Log by checking the "respiratory condition" column.

§801.12

Historical Note

Sec. Repealed, filed Dec. 24, 2003, eff. Jan. 14, 2004.

§801.13 – §801.28 Reserved

§801.29 Forms

a) The employer must use SH 900, SH 900.1, and SH 900.2 forms, or equivalent forms, and associated instructions, for recordable injuries and illnesses. The SH 900 form is called the Log of Work-Related Injuries and Illnesses, the SH 900.1 is the Annual Summary of Work-Related Injuries and Illnesses, and the SH 900.2 form is called the Injury and Illness Incident Report.

b) If the case is to be considered a "privacy concern case," the employer may not enter the employee's name on the SH 900 Log. Instead, the employer must enter "privacy case" in the space normally used for the employee's name. This will protect the privacy of the injured or ill employee when another employee, a former employee, or an authorized employee representative is provided access to the SH 900 Log under section 801.35. The employer must keep a separate, confidential list (the Privacy Case List) of the case numbers and employee

names for the employer's privacy concern cases so the employer can update the cases and provide the information to the government if asked to do so.

c) The employer must consider the following injuries or illnesses to be privacy concern cases:

(1) an injury or illness to an intimate body part or the reproductive system;

(2) an injury or illness resulting from a sexual assault;

(3) mental illnesses;

(4) HIV infection, hepatitis, or tuberculosis;

(5) needlestick injuries and cuts from sharp objects that are contaminated with another person's blood or other potentially infectious material (see 801.7 for definitions); and

(6) other illnesses, if the employee independently and voluntarily requests that his or her name not be entered on the log. Effective January 1, 2004, musculoskeletal disorders (MSDs) are not considered privacy concern cases.

This is a complete list of all injuries and illnesses considered privacy concern cases. No other types of injuries or illnesses may be classified as privacy concern cases.

§801.30 Multiple Establishments

a) The employer must keep a separate SH 900 Log for each establishment that is expected to be in operation for one year or longer.

§801.31 Covered Employees

a) The employer must record on the SH 900 Log the recordable injuries and illnesses of all employees on the employer's payroll, whether they are labor, executive, hourly, salary, part-time, seasonal, or other workers. The employer also must record the recordable injuries and illnesses that occur to employees who are not on the employer's payroll if the employer supervises these employees on a day-to-day basis.

§801.32 Annual Summary

a) At the end of each calendar year, the employer must:

(1) review the SH 900 Log to verify that the entries are complete and accurate,

and correct any deficiencies identified;

(2) create an annual summary of injuries and illnesses recorded on the SH 900 Log;

(3) certify the summary; and

(4) post the annual summary, for the previous calendar year, from February 1 through April 30 each year.

§801.33 Retention and Updating

a) The employer must save the SH 900 Log, the privacy case list (if one exists), the annual summary, and the SH 900.2 Incident Report forms for five (5) years following the end of the calendar year that these records cover.

§801.34 Reserved

§801.35 Employee Involvement

a) The employer's employees and their representatives must be involved in the recordkeeping system in the following ways:

(1) the employer must inform each employee of how he or she is to report an injury or illness to the employer;

(2) the employer must provide limited access to its injury and illness records for its employees and their representatives by:

- When an employee, former employee, personal representative, or authorized employee representative asks for copies of the employer's current or stored SH 900 Log(s) for an establishment the employee or former employee has worked in, the employer must give the requester a copy of the relevant SH 900 Log(s) by the end of the next business day.
- The employer must leave the names on the SH 900 Log. However, to protect the privacy of injured and ill employees, the employer may not record the employee's name on the SH 900 Log for certain "privacy concern cases," as specified in 801.29 (b) and 801.29 (c).
- When an employee, former employee, or personal representative asks for a copy of the SH 900.2 Incident Report describing an injury or illness to that employee or former employee, the employer must give the requester a copy of the SH 900.2 Incident Report containing that information by the end of the next business day.

- When an authorized employee representative asks for copies of the SH 900.2 Incident Reports for an establishment where the agent represents employees under a collective bargaining agreement, the employer must give copies of those forms to the authorized employee representative within 7 calendar days. The employer is only required to give the authorized employee representative information from the SH 900.2 Incident Report section titled "Information about the case." The employer must remove all other information from the copy of the SH 900.2 Incident Report or the equivalent substitute form that the employer gives to the authorized employee representative.
- The employer may not charge for these copies the first time they are provided. However, if one of the designated persons asks for additional copies, the employer may assess a reasonable charge for retrieving and copying the records.

§801.36 Reserved

§801.37 Reserved

§801.38 Reserved

§801.39 Reporting Fatalities and Multiple Hospitalization Incidents to PESH.

a) Within eight (8) hours after the death of any employee in the work environment, regardless of the cause, or the in-patient hospitalization of two (2) or more employees as a result of a work-related incident, the employer must orally report the fatality/multiple hospitalization by telephone or in person to the nearest office of the New York State Department of Labor, Division of Safety and Health (DOSH).

§801.40 Providing Records to Government Representatives

a) When an authorized government representative asks for the records the employer keeps under Part 801, the employer must provide copies of the records within four (4) business hours, regardless of where the records are maintained. The government representative authorized to receive the records is a representative of the Commissioner of Labor of the State of New York, conducting an inspection or investigation under State Labor Law.

§801.41 Annual DOSH Injury and Illness Survey

a) If the employer receives the DOSH annual survey form, the employer must fill it out and send it to DOSH or the DOSH designee, as stated on the survey form. The employer must report the following information for the year described on the form:

(1) the number of workers employed;

(2) the number of hours worked by employees;

(3) the requested information from the records that the employer keeps under Part 801.

§801.42 Requests from the Bureau of Labor Statistics for Data

a) If the employer receives a Survey of Occupational Injuries and Illnesses Form from the Bureau of Labor Statistics (BLS), or a BLS designee, the employer must promptly complete the form and return it following the instructions contained on the survey form.

§801.43 Reserved

§801.44 Retention and Updating of Old Forms

a) The employer must save his or her copies of the SH 900 and, to the extent used as an illness and injury report, C2, forms for five years following the year to which they relate and continue to provide access to the data as required in the Part. The employer is not required to update old DOSH 900 and C2 forms.

§801.45 Reserved

§801.46 Definitions

As used in this Part:

901 Establishment

An establishment is a single physical location where services, operations or other activities are performed. For activities where employees do not work at a single physical location, such as construction; transportation; electric, and sanitary services; and similar operations, the establishment is represented by main or branch offices, terminals, stations, etc. that either supervise such activities or are the base from which personnel carry out these activities. An establishment may include more than one physical location provided:

901.1 the employer operates the locations as a single operation under common management;

901.2 the locations are all located in close proximity to each other;

901.3 the employer keeps one set of records for the locations, such as records on the number of employees, their wages and salaries, sales or receipts, and other kinds of business information. For example, one establishment might include the main plant, a warehouse a few blocks away, and an administrative services building across the street.

902 Injury or Illness

An injury or illness is an abnormal condition or disorder. Injuries include cases such as, but not limited to, a cut, fracture, sprain, or amputation. Illnesses include both acute and chronic illnesses, such as, but not limited to, a skin disease, respiratory disorder, or poisoning. (Note: Injuries and illnesses are recordable only if they are new, work-related cases that meet one or more of the section 801.4- 801.12 recording criteria.)

903 Physician or Other Licensed Health Care Professional

A physician or other licensed health care professional is an individual who meets the definition for such a professional under the New York State Education Law.

904 Work Environment

The work environment is an establishment or other locations where one or more employees are working or are present as a condition of their employment. The work environment includes not only physical locations, but also the equipment or materials used by the employee during the course of his or her work.

905 Employer

Any State, any political subdivision of the State, a public authority or any other governmental agency or instrumentality thereof is an employer within the meaning of this Part.

906 Public Employee

Any employee of the State, any political subdivision of the State, a public authority or any other governmental agency or instrumentality is a public employee within the meaning of this Part.

§801.47 Posters for Public Employees

a) Each employer shall post and keep posted in each establishment a poster providing information relating to the job safety and health protection afforded to public employees by the provisions of Labor Law, section 27-a. These posters may be obtained from the New York State Department of Labor, Division of Safety and Health. A poster for each establishment shall be posted in a conspicuous place or places where notices to employees of that establishment are customarily posted, and the employer shall take steps to insure that the posters are not altered, defaced, or covered by other material.

Appendix Q: SH 901 – Instructions for Recording and Reporting Public Employees' Occupational Injuries and Illnesses

(as referenced by 12NYCRR Part 801)

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901.7	General Recording Criteria
901.8	Recording Criteria for Needlestick and Sharps Injuries
901.9	Recording Criteria for Cases Involving Medical Removal Under PESH Standards
901.10	Recording Criteria for Cases Involving Occupational Hearing Loss
901.11	Recording Criteria for Work-Related Tuberculosis Cases
901.12	Recording Criteria for Cases Involving Work-Related Musculoskeletal Disorders
901.13 - 901.28	Reserved
901.29	Forms
901.30	Multiple Establishments
901.31	Covered Employees
901.32	Annual Summary

901.33 Retention and Updating

901.34 Reserved

901.35 Employee Involvement

901.36 Reserved

901.37 Reserved

901.38 Reserved

901.39 Reporting Fatalities and Multiple Hospitalization Incidents

901.40 Providing Records to Government Representatives

901.41 Reserved

901.42 Requests from the Bureau of Labor Statistics for Data

901.43 Summary and Posting of Year 2000 Data

901.44 Retention and Updating of Old Forms

901.45 Reserved

901.46 Definitions

901.47 Posters for Public Employees

§901.0 Purpose

The purpose of these instructions is to provide clarification and interpretation of the basic requirements set forth in 12NYCRR part 801 titled Recording and Reporting Public Employees' Occupational Injuries and Illnesses.

Note: *Recording or reporting a work-related injury, illness, or fatality does not mean that the employer or employee was at fault, that a PESH rule has been violated, or that the employee is eligible for workers' compensation or other benefits.*

§901.1 Reserved

§901.2 Reserved

§901.3 Reserved

§901.4 Recording Criteria

a) Injuries and illnesses are recordable, if:

(1) an employee experiences an injury or illness; and

(2) the injury or illness is work related; and

(3) the injury or illness is a new case; and

(4) the injury or illness meets the general recording criteria or the application to specific cases.

§901.5 Determination of Work-Relatedness

a) Injuries or illnesses occurring in the work environment that fall under one of the following exemptions is not work related and the employer is not required to record, if:

(1) at the time of the injury or illness, the employee was present in the work environment as a member of the general public rather than as an employee;

(2) the injury or illness involves signs or symptoms that surface at work but result solely from a non-work-related event or exposure that occurs outside the work

environment;

(3) the injury or illness results solely from voluntary participation in a wellness program or in a medical, fitness, or recreational activity such as blood donation, physical examination, flu shot, exercise class, racquetball, or baseball;

(4) the injury or illness is solely the result of an employee eating, drinking, or preparing food or drink for personal consumption (whether bought on the employer's premises or brought in). For example, if the employee is injured by choking on a sandwich while in the employer's establishment, the case would not be considered work-related;

Note: *If the employee is made ill by ingesting food contaminated by workplace contaminants (such as lead), or gets food poisoning from food supplied by the employer, the case would be considered work-related;*

(5) the injury or illness is solely the result of an employee doing personal tasks (unrelated to their employment) at the establishment outside of the employee's assigned working hours;

(6) the injury or illness is solely the result of personal grooming, self-medication for a non-work-related condition, or is intentionally self- inflicted;

(7) the injury or illness is caused by a motor vehicle accident and occurs on a company parking lot or company access road while the employee is commuting to or from work;

(8) the illness is the common cold or flu (Note: contagious diseases such as tuberculosis, brucellosis, hepatitis A, or plague are considered work- related if the employee is infected at work);

(9) the illness is a mental illness. Mental illness will not be considered work-related unless the employee voluntarily provides the employer with an opinion from a physician or other licensed health care professional with appropriate training and experience (psychiatrist, psychologist, psychiatric nurse practitioner, etc.) stating that the employee has a mental illness that is work-related.

b) A preexisting injury or illness has been significantly aggravated, for purposes of DOSH injury and illness recordkeeping, when an event or exposure in the work environment results in any of the following:

(1) death, provided that the preexisting injury or illness would likely not have resulted in death but for the occupational event or exposure;

(2) loss of consciousness, provided that the preexisting injury or illness would likely not have resulted in loss of consciousness but for the occupational event or exposure;

(3) one or more days away from work, or days of restricted work, or days of job transfer that otherwise would not have occurred but for the occupational event or exposure;

(4) medical treatment in a case where no medical treatment was needed for the injury or illness before the workplace event or exposure, or a change in medical treatment was necessitated by the workplace event or exposure.

c) An injury or illness is a preexisting condition if it resulted solely from a non- work-related event or exposure that occurred outside the work environment.

d) Injuries and illnesses that occur while an employee is on travel status are work-related if, at the time of the injury or illness, the employee was engaged in work activities "in the interest of the employer." Examples of such activities include travel to and from customer contacts, conducting job tasks, and entertaining or being entertained to transact, discuss, or promote business (work-related entertainment includes only entertainment activities being engaged in at the direction of the employer). Injuries or illnesses that occur when the employee is on travel status do not have to be recorded if they meet one of the exceptions:

(1) when a traveling employee checks into a hotel, motel, or other temporary residence, he or she establishes a "home away from home." The employer must evaluate the employee's activities after he or she checks into the hotel, motel, or other temporary residence for their work-relatedness in the same manner as the employer evaluate the activities of a non-traveling employee. When the employee checks into the temporary residence, he or she is considered to have left the work environment. When the employee begins work each day, he or she re-enters the work environment. If the employee has established a "home away from home" and is reporting to a fixed worksite each day, the employer also do not consider injuries or illnesses work-related if they occur while the employee is commuting between the temporary residence and the job location;

(2) injuries or illnesses are not considered work-related if they occur while the employee is on a personal detour from a reasonably direct route of travel (e.g., has taken a side trip for personal reasons).

e) Injuries and illnesses that occur while an employee is working at home, including work in a home office, will be considered work-related if the injury or illness occurs while the employee is performing work for pay or compensation in the

home, and the injury or illness is directly related to the performance of work rather than to the general home environment or setting.

§901.6 Determination of New Cases

a) For occupational illnesses where the signs or symptoms may recur or continue in the absence of an exposure in the workplace, the case must only be recorded once. Examples may include occupational cancer, asbestosis, byssinosis and silicosis.

b) Employees who experience the signs or symptoms of an injury or illness as a result of an event or exposure in the workplace, such as an episode of occupational asthma, must treat the recurrence or exposure as a new case.

c) In the determination of whether a case is a new case or a recurrence of an old case, the employer is not required to seek the advice of a physician or other licensed health care professional. However, if the employer does seek such advice, the employer must follow the physician or other licensed health care professional's recommendation about whether the case is a new case or a recurrence. If the employer receives recommendations from two or more physicians or other licensed health care professionals, the employer must make a decision as to which recommendation is the most authoritative (best documented, best reasoned, or most authoritative), and record or not record the case based upon that recommendation.

§901.7 General Recording Criteria

a) The employer must record an injury or illness that results in death by entering a check mark on the SH 900 Log in the space for cases resulting in death. The employer must also report any work-related fatality to the Commissioner within eight (8) hours, as required by section 801.39.

b) When an injury or illness involves one or more days away from work, the employer must record the injury or illness on the SH 900 Log with a check mark in the space for cases involving days away and an entry of the number of calendar days away from work in the number of days column. If the employee is out for an extended period of time, the employer must enter an estimate of the days that the employee will be away, and update the day count when the actual number of days is known. The following criteria shall be used in recording lost time injuries and illnesses:

(1) the employer shall begin counting days away on the day after the injury occurred or the illness began;

(2) when a physician or other licensed health care professional recommends that the worker stay at home but the employee comes to work anyway, the employer must record these injuries and illnesses on the SH 900 Log using the check box for cases with days away from work and enter the number of calendar days away recommended by the physician or other licensed health care professional. If a physician or other licensed health care professional recommends days away, the employer should encourage the employee to follow that recommendation. However, the days away must be recorded whether the injured or ill employee follows the physician or licensed health care professional's recommendation or not. If the employer receives recommendations from two or more physicians or other licensed health care professionals, the employer may make a decision as to which recommendation is the most authoritative, and record the case based upon that recommendation;

(3) when a physician or other licensed health care professional recommends that the worker to return to work but the employee stays at home anyway, the employer must end the count of days away from work on the date the physician or other licensed health care professional recommends that the employee return to work;

(4) the employer must count the number of calendar days the employee was unable to work as a result of the injury or illness, regardless of whether or not the employee was scheduled to work on those day(s). Weekend days, holidays, vacation days or other days off are included in the total number of days recorded if the employee would not have been able to work on those days because of a work-related injury or illness;

(5) the employer shall record a case in which a worker is injured or becomes ill on a Friday and reports to work on a Monday, and was not scheduled to work on the weekend only if the employer receives information from a physician or other licensed health care professional indicating that the employee should not have worked, or should have performed only restricted work, during the weekend. If so, the employer must record the injury or illness as a case with days away from work or restricted work, and enter the day counts, as appropriate;

(6) the employer shall record a case in which a worker is injured or becomes ill on the day before scheduled time off such as a holiday, a planned vacation, or a temporary plant closing only if the employer receives information from a physician or other licensed health care professional indicating that the employee should not have worked, or should have performed only restricted work, during the scheduled time off. If so, the employer must record the injury or illness as a case with days away from work or restricted work, and enter

the day counts, as appropriate;

(7) the employer may "cap" the total days away at 180 calendar days. The employer is not required to keep track of the number of calendar days away from work if the injury or illness resulted in more than 180 calendar days away from work and/or days of job transfer or restriction. In such a case, entering 180 in the total days away column will be considered adequate;

(8) if the employee leaves the employer's employ for some reason unrelated to the injury or illness, such as retirement, a closing, or to take another job, the employer may stop counting days away from work or days of restriction/job transfer. If the employee leaves the employer's employ because of the injury or illness, the employer must estimate the total number of days away or days of restriction/job transfer and enter the day count on the SH 900 Log;

(9) the employer shall enter the number of calendar days away for the injury or illness on the SH 900 Log for the year in which the injury or illness occurred. If the employee is still away from work because of the injury or illness when the employer prepares the annual summary, the employer must estimate the total number of calendar days the employer expects the employee to be away from work, use this number to calculate the total for the annual summary, and then update the initial log entry later when the day count is known or reaches the 180-day cap.

c) When an injury or illness involves restricted work or job transfer but does not involve death or days away from work, the employer must record the injury or illness on the SH 900 Log by placing a check mark in the space for job transfer or restriction and an entry of the number of restricted or transferred days in the restricted workdays column. Restricted work occurs when, as the result of a work-related injury or illness:

(1) the employer keep the employee from performing one or more of the routine functions of his or her job, or from working the full workday that he or she would otherwise have been scheduled to work;

(2) a physician or other licensed health care professional recommends that the employee not perform one or more of the routine functions of his or her job, or not work the full workday that he or she would otherwise have been scheduled to work.

d) For recordkeeping purposes, an employee's routine functions are those work activities the employee regularly performs at least once per week.

e) The employer does not have to record restricted work or job transfers if the employer, or the physician or other licensed health care professional, imposes

the restriction or transfer only for the day on which the injury occurred or the illness began.

f) A recommended work restriction is recordable only if it affects one or more of the employee's routine job functions. To determine whether this is the case, the employer must evaluate the restriction in light of the routine functions of the injured or ill employee's job. If the restriction from the employer or the physician or other licensed health care professional keeps the employee from performing one or more of his or her routine job functions, or from working the full workday the injured or ill employee would otherwise have worked, the employee's work has been restricted and the employer must record the case.

g) A partial day of work is recorded as a day of job transfer or restriction for recordkeeping purposes, except for the day on which the injury occurred or the illness began.

h) If the employer is not clear about the physician or other licensed health care professional's recommendation, the employer may ask that person whether the employee can do all of his or her routine job functions and work all of his or her normally assigned work shift. If the answer to both of these questions is "Yes," then the case does not involve a work restriction and does not have to be recorded as such. If the answer to one or both of these questions is "No," the case involves restricted work and must be recorded as a restricted work case. If the employer is unable to obtain this additional information from the physician or other licensed health care professional who recommended the restriction, the employer must record the injury or illness as a case involving restricted work.

i) The employer must record the injury or illness on the SH 900 Log as a restricted work case if a physician or other licensed health care professional recommends a job restriction, even if the employee voluntarily performs all his or her routine job functions anyway. The employer should ensure that the employee complies with that restriction. If the employer receives recommendations from two or more physicians or other licensed health care professionals, the employer may make a decision as to which recommendation is the most authoritative, and record the case based upon that recommendation.

j) If the employer assigns an injured or ill employee to a job other than his or her regular job for part of the day, the case involves transfer to another job. Note: This does not include the day on which the injury or illness occurred.

k) Both job transfer and restricted work cases are recorded in the same box on the SH 900 Log. For example, if the employer assigns, or a physician or other licensed health care professional recommends that the employer assign, an injured or ill worker to his or her routine job duties for part of the day and to

another job for the rest of the day, the injury or illness involves a job transfer. The employer must record an injury or illness that involves a job transfer by placing a check in the box for job transfer.

l) The employer must count days of job transfer or restriction in the same way the employer counts days away from work, using 901.7(b)(2) to (7), above. The only difference is that, if the employer permanently assigns the injured or ill employee to a job that has been modified or permanently changed in a manner that eliminates the routine functions the employee was restricted from performing, the employer may stop the day count when the modification or change is made permanent. The employer must count at least one day of restricted work or job transfer for such cases.

m) If a work-related injury or illness results in medical treatment beyond first aid, the employer must record it on the SH 900 Log. If the injury or illness did not involve death, one or more days away from work, one or more days of restricted work, or one or more days of job transfer, the employer enter a check mark in the box for cases where the employee received medical treatment but remained at work and was not transferred or restricted according to the following:

(1) medical treatment means the management and care of a patient to combat disease or disorder. For the purposes of Part 801, medical treatment does not include:

- visits to a physician or other licensed health care professional solely for observation or counseling;
- the conduct of diagnostic procedures, such as x-rays and blood tests, including the administration of prescription medications used solely for diagnostic purposes (e.g., eye drops to dilate pupils); or
- "First aid" as defined in 901.7(m)(2) below.

(2) for the purposes of Part 801, first aid includes and is limited to the following;

- using a nonprescription medication at nonprescription strength (for medications available in both prescription and non-prescription form, a recommendation by a physician or other licensed health care professional to use a non-prescription medication at prescription strength is considered medical treatment for recordkeeping purposes);
- administering tetanus immunizations (other immunizations, such as Hepatitis B vaccine or rabies vaccine, are considered medical treatment);

- cleaning, flushing or soaking wounds on the surface of the skin;
- using wound coverings such as bandages, Band-Aids™, gauze pads, etc.; or using butterfly bandages or Steri-Strips™ (other wound closing devices such as sutures, staples, etc. are considered medical treatment);
- using hot or cold therapy;
- using any non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc. (devices with rigid stays or other systems designed to immobilize parts of the body are considered medical treatment for recordkeeping purposes);
- using temporary immobilization devices while transporting an accident victim (e.g., splints, slings, neck collars, back boards, etc.);
- drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister;
- using eye patches;
- removing foreign bodies from the eye using only irrigation or a cotton swab;
- removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs or other simple means;
- using finger guards;
- using massages (physical therapy or chiropractic treatment are considered medical treatment for recordkeeping purposes);
- Drinking fluids for relief of heat stress.

(1) PESH considers the treatments listed in 901.7(m)(2) of these instructions to be first aid regardless of the professional status of the person providing the treatment. Even when these treatments are provided by a physician or other licensed health care professional, they are considered first aid for the purposes of 12NYCRR Part 801. Similarly, PESH considers treatment beyond first aid to be medical treatment even when it is provided by someone other than a physician or other licensed health care professional.

(2) if a physician or other licensed health care professional recommends medical treatment, the employer should encourage the injured or ill employee to follow

that recommendation. However, the employer must record the case even if the injured or ill employee does not follow the physician or other licensed health care professional's recommendation.

n) The employer must record a work-related injury or illness if the worker becomes unconscious, regardless of the length of time the employee remains unconscious.

o) A significant diagnosed injury or illness is recordable under the general criteria even if it does not result in death, days away from work, restricted work or job transfer, medical treatment beyond first aid, or loss of consciousness. Work-related cases involving cancer, chronic irreversible disease, a fractured or cracked bone, or a punctured eardrum must always be recorded under the general criteria at the time of diagnosis by a physician or other licensed health care professional.

§901.8 Recording Criteria for Needlesticks and Sharps Injuries

a) "Other potentially infectious materials" is defined in the PESH Bloodborne Pathogens standard (29 CFR 1910.1030(b)). These materials include:

(1) Human bodily fluids, tissues and organs; and

(2) Other materials infected with the HIV or hepatitis B (HBV) virus such as laboratory cultures or tissues from experimental animals.

b) To protect the employee's privacy, the employer may not enter the employee's name on the SH 900 Log (see the requirements for privacy cases in instructions 901.29(e) through 901.29(g).

c) The employer needs to record cuts, lacerations, punctures, and scratches only if they are work-related and involve contamination with another person's blood or other potentially infectious material. If the cut, laceration, or scratch involves a clean object, or a contaminant other than blood or other potentially infectious material, the employer needs to record the case only if it meets one or more of the recording criteria in 901.7 of the instructions.

d) The employer must update the classification of any case with an injury to an employee that is later diagnosed with an infectious bloodborne disease on the SH 900 Log if the case results in death, days away from work, restricted work, or job transfer. The employer must also update the description to identify the infectious disease and change the classification of the case from an injury to an illness.

e) If an employees is splashed or exposed to blood or other potentially infectious material without being cut or scratched, the employer must record such an incident on the SH 900 Log as an illness if:

(1) it results in the diagnosis of a bloodborne illness, such as HIV, hepatitis B, or hepatitis C;

(2) it meets one or more of the recording criteria in section 801.7.

§901.9 Recording Criteria for Cases Involving Medical Removal under PESH Standards

a) The employer must enter each medical removal case on the SH 900 Log as either a case involving days away from work or a case involving restricted work activity, depending on how the employer decides to comply with the medical removal requirement. If the medical removal is the result of a chemical exposure, the employer must enter the case on the SH 900 Log by checking the "poisoning" column.

b) If a case involves voluntary medical removal before the medical removal levels required by PESH standards (29 CFR 1910, 1915, 1917, 1918, 1926, or 1928), the employer does not need to record the case on the SH 900 Log.

§901.10 Recording Criteria for Cases Involving Occupational Hearing Loss

a) A Standard Threshold Shift, or STS, is defined in the occupational noise exposure standard at 29 CFR 1910.95(c)(10)(i) as a change in hearing threshold, relative to the baseline audiogram for that employee, of an average of 10 decibels (dB) or more at 2000, 3000, and 4000 hertz (Hz) in one or both ears.

b) If the employee has never previously experienced a recordable hearing loss, the employer must compare the employee's current audiogram with that employee's baseline audiogram. If the employee has previously experienced a recordable hearing loss, the employer must compare the employee's current audiogram with the employee's revised baseline audiogram (the audiogram reflecting the employee's previous recordable hearing loss case).

c) Audiometric test results reflect the employee’s overall hearing ability in comparison to audiometric zero. Therefore, using the employee’s current audiogram, the employer must use the average hearing level at 2000, 3000, and 4000 Hz to determine whether or not the employee’s total hearing level is 25 dB or more.

d) When the employer is determining whether an STS has occurred, the employer may age adjust the employee's current audiogram results by using Tables F-1 or F-2, as appropriate, in Appendix F of 29 CFR 1910.95. The employer may not use an age adjustment when determining whether the employee's total hearing level is 25 dB or more above audiometric zero.

e) If the employer retests the employee's hearing within 30 days of the first test, and the retest does not confirm the recordable STS, the employer is not required to record the hearing loss case on the SH 900 Log. If the retest confirms the recordable STS, the employer must record the hearing loss illness within seven (7) calendar days of the retest. If subsequent audiometric testing performed under the testing requirements of the 29 CFR 1910.95 noise standard indicates that an STS is not persistent, the employer may erase or line-out the recorded entry.

f) The employer must use the rules in § 801.5 and instructions in SH 901.5 to determine if the hearing loss is work related. If an event or exposure in the work environment either caused or contributed to the hearing loss, or significantly aggravated a pre-existing hearing loss, the employer must consider the case to be work related.

g) If a physician or other licensed health care professional determines that the hearing loss is not work-related or has not been significantly aggravated by occupational noise exposure, the employer is not required to consider the case work-related or to record the case on the SH 900 Log.

h) When the employer enters a recordable hearing loss on the SH 900 log, after January 1, 2004, the employer must check the column for hearing loss.

§901.11 Recording Criteria for Work-Related Tuberculosis Cases

a) A positive TB skin test result obtained at a pre-employment physical does not have to be recorded because the employee was not occupationally exposed to a known case of active tuberculosis in the employer's workplace.

b) The employer may line-out or erase a recorded TB case if:

(1) the worker is living in a household with a person who has been diagnosed with active TB; or

(2) the Public Health Department has identified the worker as a contact of an individual with a case of active TB unrelated to the workplace; or

(3) a medical investigation shows that the employee's infection was caused by exposure to TB away from work, or proves that the case was not related to the workplace TB exposure.

§901.12 Recording Criteria for Cases Involving Work-Related Musculoskeletal Disorders

a) Musculoskeletal disorders (MSDs) are disorders of the muscles, nerves, tendons, ligaments, joints, cartilage and spinal discs. MSDs do not include disorders caused by slips, trips, falls, motor vehicle accidents, or other similar accidents. Examples of MSDs include: Carpal tunnel syndrome, Rotator cuff syndrome, De Quervain's disease, Trigger finger, Tarsal tunnel syndrome, Sciatica, Epicondylitis, Tendinitis, Raynaud's phenomenon, Carpet layers knee, Herniated spinal disc, and Low back pain.

b) There are no special criteria for determining which musculoskeletal disorders to record. An MSD case is recorded using the same process the employer would use for any other injury or illness. If a musculoskeletal disorder is work-related, and is a new case, and meets one or more of the general recording criteria, the employer must record the musculoskeletal disorder. The following table will guide the employer to the appropriate section of the rule for guidance on recording MSD cases.

(1) Determining if the MSD is work-related. See § 801.5 and instruction 901.5.

(2) Determining if the MSD is a new case. See § 801.6 and instruction 901.6.

(3) Determining if the MSD meets one or more of the general recording criteria:

- Days away from work, see § 801.7 and instruction 901.7(b).
- Restricted work or transfer to another job, or see § 801.7 and instruction 901.7(c).
- Medical treatment beyond first aid. See § 801.7 and instruction 901.7(m).

c) The symptoms of an MSD are treated the same as symptoms for any other injury or illness. If an employee has pain, tingling, burning, numbness or any other subjective symptom of an MSD, and the symptoms are work-related, and the case is a new case that meets the recording criteria, the employer must record the case on the SH 900 Log as a musculoskeletal disorder.

Note to Instruction 901.12: *This section is effective January 1, 2004. From January 1, 2003 until December 31, 2003, the employer is required to record work-related injuries and illnesses involving muscles, nerves, tendons, ligaments, joints, cartilage and spinal discs in accordance with the requirements applicable to any injury or illness under § 801.5, § 801.6, § 801.7, and § 801.29. For entry (M) on the SH 900 Log, the employer must check either the entry for "injury" or "all other illnesses."*

§901.13 – 901.28 Reserved

§901.29 Forms

a) The employer must enter information about the employer's business at the top of the SH 900 Log, enter a one or two line description for each recordable injury or illness, and summarize this information on the SH 900.1 at the end of the year.

b) The employer must complete an SH 900.2 Incident Report form, or an equivalent form, for each recordable injury or illness entered on the SH 900 Log.

c) The employer must enter each recordable injury or illness on the SH 900 Log and SH 900.2 Incident Report within seven (7) calendar days of receiving information that a recordable injury or illness has occurred.

d) An equivalent form is one that has the same information, is as readable and understandable, and is completed using the same instructions as the DOSH form it replaces. If the employer's computer can produce equivalent forms when they are needed, as described under sections 801.35 and 801.40, the employer may keep the employer's records using the computer system.

e) If an ill employee designates or requests that someone designate on the SH 900.2 that he or she independently and voluntarily requests that his or her name not be entered on the log in case of illness, then the case must be considered a privacy concern case. If it is to be considered a "privacy concern case," the employer may not enter the employee's name on the SH 900 Log. Instead, the employer must enter "privacy case" in the space normally used for the employee's name. This will protect the privacy of the injured or ill employee when another employee, a former employee, or an authorized employee representative is provided access to the SH 900 Log under section 801.35. The employer must keep a separate, confidential list of the case numbers and employee names for the employer's privacy concern cases so the employer can update the cases and provide the information to the government if asked to do so.

f) The employer must consider the following injuries or illnesses to be privacy

concern cases:

(1) an injury or illness to an intimate body part or the reproductive system;

(2) an injury or illness resulting from a sexual assault;

(3) mental illnesses;

(4) HIV infection, hepatitis, or tuberculosis;

(5) needlestick injuries and cuts from sharp objects that are contaminated with another person's blood or other potentially infectious material (see 801.7 for definitions); and

(6) other illnesses, if the employee independently and voluntarily requests that his or her name not be entered on the log. Effective January 1, 2004, Musculoskeletal disorders (MSDs) are not considered privacy concern cases. This is a complete list of all injuries and illnesses considered privacy concern cases. No other types of injuries or illnesses may be classified as privacy concern cases.

g) If the employer has a reasonable basis to believe that information describing the privacy concern case may be personally identifiable even though the employee's name has been omitted, the employer may use discretion in describing the injury or illness on both the SH 900 and SH 900.2 forms. The employer must enter enough information to identify the cause of the incident and the general severity of the injury or illness, but the employer does not need to include details of an intimate or private nature. For example, a sexual assault case could be described as "injury from assault," or an injury to a reproductive organ could be described as "lower abdominal injury."

h) If the employer decides to voluntarily disclose the Forms to persons other than government representatives, employees, former employees or authorized representatives (as required by sections 801.35 and 801.40), the employer must remove or hide the employees' names and other personally identifying information, except for the following cases. The employer may disclose the Forms with personally identifying information only:

(1) to an auditor or consultant hired by the employer to evaluate the safety and health program;

(2) to the extent necessary for processing a claim for workers' compensation or other insurance benefits;

(3) to a public health authority or law enforcement agency for uses and

disclosures for which consent, an authorization, or opportunity to agree or object is not required under Department of Health and Human Services Standards for Privacy of Individually Identifiable Health Information, 45 CFR164.512.

§901.30 Multiple Establishments

a) The employer does not have to keep a separate SH 900 Log for each establishment that will exist for less than a year. The employer may keep one SH 900 Log that covers all of the employer's short-term establishments. The employer may also include the short-term establishments' recordable injuries and illnesses on a SH 900 Log that covers short-term establishments for individual divisions or geographic regions.

b) The employer may keep the records for an establishment at its headquarters or other central location if the employer can:

(1) transmit information about the injuries and illnesses from the establishment to the central location within seven (7) calendar days of receiving information that a recordable injury or illness has occurred; and

(2) produce and send the records from the central location to the establishment within the time frames required by sections 801.35 and

(3) 801.40 when the employer is required to provide records to a government representative, employees, former employees or employee representatives.

c) The employer must link each of the employer's employees with one of the employer's establishments, for recordkeeping purposes. The employer must record the injury and illness on the SH 900 Log of the injured or ill employee's establishment, or on a SH 900 Log that covers that employee's short-term establishment.

d) If the injury or illness occurs at one of the employer's establishments, the employer must record the injury or illness on the SH 900 Log of the establishment at which the injury or illness occurred. If the employee is injured or becomes ill and is not at one of the employer's establishments, the employer must record the case on the SH 900 Log at the establishment at which the employee normally works.

§901.31 Covered Employees

a) An injury or illness occurring to employees from a temporary help service, employee leasing service, or personnel supply service, must be recorded by the employer who supervises these employees on a day-to-day basis.

b) If a contractor's employee is under the day-to-day supervision of the contractor, the contractor is responsible for recording the injury or illness. If the employer supervises the contractor employee's work on a day-to-day basis, the employer must record the injury or illness.

c) The employer and the temporary help service, employee leasing service, personnel supply service, or contractor should coordinate efforts to make sure that each injury and illness is recorded only once: either on the employer's SH 900 Log (if the employer provides day-to-day supervision) or on the temporary help service, employee leasing service, personnel supply service, or contractor's SH 900 Log (if that company provides day-to-day supervision).

§901.32 Annual Summary

a) The employer must:

(1) total the columns on the SH 900 Log (if the employer had no recordable cases, enter zeros for each column total);

(2) enter the calendar year covered, the employer's name, establishment name, establishment address, annual average number of employees covered by the SH 900 Log, and the total hours worked by all employees covered by the SH 900 Log;

(3) if the employer is using an equivalent form other than the SH 900.1 summary form, as permitted under 801.29, the summary the employer uses must also include the employee access and employer penalty statements found on the SH 900.1 Summary form.

b) An officer of the employer or the highest ranking official working at the establishment or place of maintenance of the records must certify that he or she has examined the SH 900 Log and that he or she reasonably believes, based on his or her knowledge of the process by which the information was recorded, that the annual summary is correct and complete.

c) The employer must post a copy of the annual summary in each establishment in a conspicuous place or places where notices to employees are customarily

posted. The employer must ensure that the posted annual summary is not altered, defaced or covered by other material.

d) The employer must post the summary no later than February 1 of the year following the year covered by the records and keep the posting in place until April 30.

§901.33 Retention and Updating

a) During the storage period, the employer must update its stored SH 900 Logs to include newly discovered recordable injuries or illnesses and to show any changes that have occurred in the classification of previously recorded injuries and illnesses. If the description or outcome of a case changes, the employer must remove or line out the original entry and enter the new information.

b) The employer is not required to update the SH 900.2 Incident Reports, but may do so if desired.

c) The employer is not required to update the annual summary, but may do so if desired.

§901.34 Reserved

§901.35 Employee Involvement

a) The employer must set up a way for employees to report work-related injuries and illnesses promptly and the employer must tell each employee how to report work- related injuries and illnesses to the employer.

b) The employer's employees, former employees, their personal representatives, and their authorized employee representatives have the right to access the DOSH injury and illness records, with some limitations, as discussed below.

(1) An authorized employee representative is an authorized collective bargaining agent of employees.

(2) A personal representative is:

- any person that the employee or former employee designates as such, in writing;

- the legal representative of a deceased or legally incapacitated employee or former employee.

(3) When an employee, former employee, personal representative, or authorized employee representative asks for copies of the employer's current or stored SH 900 Log(s) for an establishment the employee or former employee has worked in, the employer must give the requester a copy of the relevant SH 900 Log(s) by the end of the next business day.

(4) The employer must leave the names on the SH 900 Log. However, to protect the privacy of injured and ill employees, the employer may not record the employee's name on the SH 900 Log for certain "privacy concern cases," as specified in instructions 901.29(e) through 901.29(g).

(5) When an employee, former employee, or personal representative asks for a copy of the SH 900.2 Incident Report describing an injury or illness to that employee or former employee, the employer must give the requester a copy of the SH 900.2 Incident Report containing that information by the end of the next business day.

(6) When an authorized employee representative asks for a copy of the SH 900.2 Incident Reports for an establishment where the agent represents employees under a collective bargaining agreement, the employer must give copies of those forms to the authorized employee representative within 7 calendar days. The employer is only required to give the authorized employee representative information from the SH 900.2 Incident Report section titled "Tell us about the case." The employer must remove all other information from the copy of the SH 900.2 Incident Report or the equivalent substitute form that the employer gives to the authorized employee representative.

(7) The employer may not charge for these copies the first time they are provided. However, if one of the designated persons asks for additional copies, the employer may assess a reasonable charge for retrieving and copying the records.

§901.36 Reserved

§901.37 Reserved

§901.38 Reserved

§901.39 Reporting Fatalities and Multiple Hospitalization Incidents to PESH

a) If the local office is closed the employer must leave a message on the answering service of that office with the information required in (b) below and the time and date of the call.

b) The employer must give DOSH the following information for each fatality or multiple hospitalization incident:

(1) the establishment name;

(2) the location of the incident;

(3) the time of the incident;

(4) the number of fatalities or hospitalized employees;

(5) the names of any injured employees;

(6) the employer's contact person and his or her phone number;

(7) a brief description of the incident.

c) If the employer does not learn of a reportable accident at the time it occurs (for example, an employment accident involving workers traveling on work time) and the accident would otherwise be reportable under 12NYCRR Part 801.39, the employer shall report to the nearest DOSH office within eight hours of learning of such accident.

d) Whether or not an accident is immediately reportable, if a worker dies of the effects of an employment accident within six months of that accident, the employer shall report to the DOSH office within eight hours after learning of such death.

e) If a fatality or serious incident occurs in a place of employment covered by the Public Employee Safety and Health Act, the employer shall take appropriate measures to prevent the destruction or alteration of any evidence that would assist in investigating the fatality or serious accident.

§901.40 Providing Records to Government Representatives

No instructions

§901.41 Annual DOSH Injury and Illness Survey

(a) The employer must send the survey reports to DOSH, or the DOSH designee, by mail or other means described in the survey form, within 30 calendar days, or by the date stated in the survey form, whichever is later.

§901.42 Requests from the Bureau of Labor Statistics for Data

No instructions

§901.43 Summary and Posting of the 2001 Data

No instructions

§901.44 Retention and Updating of Old Forms

No instructions

§901.45 Reserved

§901.46 Definitions

No instructions

§901.47 Posters for Public Employees

No instructions

Sample Summary of Work-Related Injuries and Illnesses Form SH-900.1

STATE OF NEW YORK
DEPARTMENT OF LABOR

Divison of Safety and Health
Public Employee Safety and Health
State Office Campus
Building 12, Room 158
Albany, NY 12240

SUMMARY OF WORK-RELATED INJURIES AND ILLNESSES FORM SH-900.1

Calendar Year _____

All establishments covered by PART 801 **must** complete this summary annually, even if no occupational injuries or illnesses occurred during the year.

Employees, former employees, and their representatives have the right to review this form. They also have limited access to the Log (SH 900) or its equivalent. See 801.35 and instructions for further details on access provisions for these forms.

1. ESTABLISHMENT INFORMATION	2. EMPLOYMENT INFORMATION
ESTABLISHMENT NAME	If you don't have accurate figures, see the instructions on the back of this sheet.
STREET ADDRESS	AVERAGE NUMBER OF EMPLOYEES _____
CITY, STATE, ZIP CODE	
INDUSTRY DESCRIPTION (e.g.,village fire department)	TOTAL HOURS WORKED BY ALL EMPLOYEES LAST YEAR _____
NORTH AMERICAN INDUSTRIAL CLASSIFICATION SYSTEM (NAICS). _____ _____ _____ _____ _____ _____	

Enter the column totals from the Log of Occupational Injuries and Illnesses (SH 900) for each category (column labels under each line correspond to the columns on the Log). If a category has no cases, enter "0."

3. NUMBER OF CASES	4. NUMBER OF DAYS	5. INJURIES AND ILLNESS TYPES
DEATHS _____ (Col. G)	AWAY FROM WORK _____ (Col. K)	INJURIES _____ (Col.1)
DAYS AWAY FROM WORK _____ (Col. H)	JOB TRANSFER OR RESTRICTION _____ (Col. L)	SKIN DISORDERS _____ (Col. 2)
JOB TRANSFER OR RESTRICTION _____ (Col. I)		RESPIRATORY CONDITIONS _____ (Col. 3)
OTHER RECORD-ABLE CASES _____ (Col. J.)		POISONINGS _____ (Col. 4)
		HEARING LOSS _____ (Col. 5)
		ALL OTHER ILLNESSES _____ (Col. 6)

6. CERTIFICATION

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

SIGNATURE _____ TITLE _____

PRINT NAME _____ DATE _____

SH-900.1 (10-05)

CALCULATING EMPLOYMENT INFORMATION (Section 2)

If accurate figures regarding the average number of employees and the total hours worked by your employees are not available, please use the steps below to estimate these numbers.

Average Number of Employees

1. Add the total number of employees paid in all pay periods for the year. Include all full-time, part-time, temporary, seasonal, salaried, and hourly employees. _____ (a)

2. Count the number of pay periods for the year, including pay periods with no employees. _____ (b)

3. Divide the number of employees by the number of pay periods. _____ (a) / _____ (b) _____ (c)

4. Round the answer to the next whole number. Enter this number in the line for "Annual average number of employees" in Item 2 on the front. _____ (d)

Total Hours Worked By All Employees

1. Enter the number of full-time employees in your establishment for the year. _____ (e)

2. Enter the number of work hours for a full-time employee in a year. _____ (f)

3. Multiply (e) by (f) to find the number of full-time hours worked. **X** _____ (g)

4. Add number of overtime hours and number of hours worked by other employees (part-time, temporary, seasonal). **+** _____ (h)

5. Round the answer to the next highest whole number. Enter this number in the lines for "Total Hours Worked by All Employees Last Year" in Item 2 on the front. _____ (i)

Sample Log of Work-Related Injuries and Illnesses Form SH-900

New York State
Department of Labor
Log of Work Related Injuries and Illnesses Form
SH-900

Political Subdivision (Employer)_____
Establishment Name_____
Street Address_____
City_____ State_____ Zip Code_____

Calendar Year 20____

Page____of____

1. This form is required by the Commissioner of Labor's Rules and Regulations Part 801 (12 NYCRR Part 801) and must be kept in the establishment for five years. Failure to maintain this form can result in the issuance of a Notice of Violation and Order to Comply.
2. You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injures and illnesses that meet any of the specific recording criteria found in 12 NYCRR 801.7 - 801.12 and instructions.
3. Use more than one line for a single case if necessary.
4. This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes. Refer to the instructions (SH-901) for types of illness and injuries defined as privacy concern cases.

A.Case No.	B. Employee Name	C. Job Title	D. Date of Injury or Onset of Illness (Mo./day)	E. Where the Event Occurred (e.g., Loading dock, north end)	F. Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g., Second degree burns on right forearm from acetylene torch)	Using these categores, check ONLY the most serious result for each case.				Enter No. of Days Injured or Ill Worker Was:		M. Check the Injury Column or Check One Type of Illness					
								Remained at Work									
						G. Death	H. Days Away From Work	I. Job Transfer or Restriction	J. Other Recordable Cases	K. Away from Work	L. On Job Transfer or restriction	1. Injury	2. Skin Disorder	3. Respiratory Condition	4. Poisoning	5. Hearing Loss	6. All Other Illnesses
					TOTALS												

Additional forms and information: If you require additional forms or information concerning the completion of this form, contact: Department of Labor, Division of Research and Statistics, 75 Varick St., 7th Floor, New York, NY 10013. Telephone (212) 775-3344.

SH 900 (1-08)

Appendix R: Sample Hazard Report Form

DATE: _____ **TIME:** _____

EMPLOYEE NAME: _____

DEPARTMENT: _____

SCHOOL BUILDING LOCATION: _____

DEPARTMENT HEAD: _____

DESCRIPTION OF HAZARD: _____

_____

_____

_____

LOCATION: _____

DATE/TIME OBSERVED: _____

IMMEDIATE ACTION TAKEN: _____

_____

_____

_____

_____

OFFICE USE ONLY
FOLLOW UP: _____

_____

By: _____ **Date/Time:** _____

Appendix S: Sample Respiratory Protection Program

AS PER 29CFR1910.134 RESPIRATORY PROTECTION STANDARD

The sample respiratory protection program is intended to serve as an example written respiratory protection program which is required by the Respiratory Protection Standard. A central component of the requirements of the standard is the development of a written program.

The intent of this sample program is to provide municipal employers with a format for developing a written respiratory protection program. Each municipality will need to adjust or adapt the sample program for their specific use.

The information contained in this publication is not considered a substitute for the OSHA Act or any provisions of the OSHA and NYPESH standards. It provides general guidance on a particular standard-related topic but should not be considered a definitive interpretation for compliance with OSHA requirements. The reader should consult the OSHA standards in its entirety for specific compliance requirements.

Purpose

The purpose of this respirator program is to establish standard operating procedures to provide the protection to employees from respiratory hazards through proper selection and use of respirators. This program applies to all employees who are required to wear respirators during normal operations, non-routine tasks, or emergency operations such as a spill of a hazardous substance.

Responsibilities

Program Administrator Duties

_____ *(Municipal Entity Name)* has designated _____ *(Name of Responsible Individual)* as the program administrator to oversee the respiratory protection program. Duties of the program administrator include:

- Identifying work areas, processes or tasks that require workers to wear respirators, and evaluating hazards.
- Selection of respiratory protection options.
- Monitoring respirator use to ensure that respirators are used in accordance with their certifications.
- Arranging for and/or conducting training.
- Ensuring proper storage and maintenance of respiratory protection equipment.
- Conducting or arranging for fit testing.
- Administering the medical surveillance program.
- Maintaining records required by the program.
- Evaluating the program.
- Updating written program as needed.

Supervisors Duties

Supervisors are responsible for ensuring that the respiratory protection program is implemented in their particular departments. In addition to being knowledgeable about the program requirements for their own protection, supervisors must also ensure that the program is understood and followed by the employees under their charge. Duties of the supervisor include:

- Ensuring that employees under their supervision (including new hires) have received appropriate training, fit testing, and medical evaluation.
- Ensuring the availability of appropriate respirators and accessories.

- Being aware of tasks requiring the use of respiratory protection.
- Enforcing the proper use of respiratory protection when necessary.
- Ensuring that respirators are properly cleaned, maintained, and stored according to the respiratory protection plan.
- Ensuring that respirators fit well.
- Continually monitoring work areas and operations to identify respiratory hazards.
- Coordinating with the program administrator on how to address respiratory hazards or other concerns regarding the program.

Employees Duties

Each employee has the responsibility to wear his or her respirator when and where required and in the manner in which they were trained. Employees must also:

- Care for and maintain their respirators as instructed and store them in a clean sanitary location.
- Inform their supervisor if the respirator no longer fits well, and request a new one that fits properly.
- Inform their Supervisor or the Program administrator of any respiratory hazards that they feel may not be adequately addressed in the workplace and of any other concerns that they have regarding the program.

Program Elements

Respirator Selection

Respirators are selected on the basis of the hazards to which the employees are exposed and in accordance with OSHA and NYPESH requirements. Only NIOSH certified respirators will be selected and used.

The Program Administrator will conduct a hazard evaluation for each operation process, or work area where airborne contaminants may be present in routine operations or during an emergency. The hazard evaluation will include:

- Identification of the hazardous substances used in the workplace, department, work site or work process;
- Review of work processes to determine where potential exposures to these hazardous substances may occur; and
- Exposure monitoring to quantify potential hazardous exposures.

The results of the hazard evaluation are located _____ *(Insert location/department)* for employee review.

The program administrator will revise and update the hazard assessment as needed (i.e., any time work process changes which may potentially affect exposure).

General Requirements

- The employer selects and provides an appropriate respirator based on the respiratory hazard(s) to which the worker is exposed and workplace and user factors that affect respirator performance and reliability.
- The employer selects a NIOSH-certified respirator. The respirator is to be used in compliance with the conditions of its certification.
- The employer identifies and evaluates the respiratory hazard(s) in the workplace; this evaluation includes a reasonable estimate of employee exposures to respiratory hazard(s) and an identification of the contaminant's chemical state and physical form. Where the employer cannot identify or reasonably estimate the employee exposure, the employer shall consider the atmosphere to be immediately dangerous to life and health (IDLH).
- The employer selects respirators from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.

Respirators for Immediately Dangerous to Life and Health (IDLH) Atmospheres

- The employer provides the following respirators for employee use in IDLH atmospheres:
- A full facepiece pressure demand SCBA certified by NIOSH for a minimum service life of thirty minutes, or
- A combination full facepiece pressure demand supplied-air respirator (SAR) with auxiliary self-contained air supply.
- Respirators provided only for escape from IDLH atmospheres shall be NIOSH-certified for escape from the atmosphere in which they will be used.
- All oxygen-deficient atmospheres shall be considered IDLH. Exception: If the employer demonstrates that, under all foreseeable conditions, the oxygen concentration can be maintained within the ranges specified in Table II of 29 CFR 1910.134(d), i.e., for the altitudes set out in the table], then any atmosphere- supplying respirator may be used.

Respirators for Atmospheres That Are Not IDLH

The employer provides a respirator that is adequate to protect the health of the employee and ensure compliance with all other OSHA statutory and regulatory requirements, under routine and reasonably foreseeable emergency situations.

NIOSH Certification

All respirators must be certified by the National Institute for Occupational Safety and Health (NIOSH) and shall be used in accordance with the terms of that certification. Also, all filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval label. The label must not be removed or defaced while it is in use.

Voluntary Respirator Usage

_____*(Municipal Entity Name)* will provide respirators to employees for voluntary usage for the following work processes (*Insert tasks below that involve work where employees may want to use respirators for comfort. This is typically limited to dust masks)*:

- _____
- _____
- _____

The Program Administrator will provide all employees who voluntarily choose to wear either of the above respirators with a copy of Appendix D of the standard. (Appendix D details the requirements for voluntary use of respirators by employees.) Employees choosing to wear a half facepiece air purifying respirators (APR) must comply with the procedures for medical evaluation, respirator use, and cleaning, maintenance and storage.

The Program Administrator will authorize voluntary use of respiratory protective equipment as requested by all other workers on a case-by-case basis, depending on specific workplace conditions and the results of the medical evaluations.

Respirator Filter & Canister Replacement/Change Schedule

An important part of the Respiratory Protection Program includes identifying the useful life of canisters and filters used on air purifying respirators. Each filter and canister shall be equipped with an end-of-service-life indicator (ESLI) certified by NIOSH for the contaminant.

If there is no ESLI appropriate for conditions, change schedule for canisters and cartridges that is based on objective information or data that will ensure that canisters and cartridges are changed before the end of their service life.

Cartridges/Filters shall be changed based on the most limiting factor below:

- Prior to expiration date
- Manufacturer's recommendations for use and environment
- After each use
- When requested by employee
- When restriction to air flow has occurred as evidenced by increased effort by user to breathe normally

Employees who are required to wear respirators must be medically evaluated before being permitted to wear a respirator on the job. Employees are not permitted to wear respirators until a physician has determined that they are medically able to do so.

A licensed health care professional at _____ *(Insert Name of healthcare provider)* will provide the medical evaluation to employees. Medical evaluation procedures are as follows:

- The medical evaluation will be conducted using medical questionnaire provided in Appendix C of 29 CFR 1910.134 Respiratory Protection Standard.
- _____ *(Name of responsible person or department)* will provide a copy of this questionnaire to all employees requiring medical evaluation.
- To the extent feasible, the company will assist employees who are unable to read the questionnaire. When this is not possible the employee will be sent directly to the health care professional for assistance and medical evaluation.
- All affected employees will be given a copy of the medical questionnaire to fill out, along with a stamped and addressed envelope for mailing the questionnaire to the health care professional. Employees will be permitted to fill out the questionnaire on company time.
- Follow up medical exams will be provided to employees as required by the OSHA standard, and/or as deemed necessary by the health care professional.
- All employees will be allowed the opportunity to speak with the health care professional about their medical evaluation if they so request.
- The program administrator will provide the health care professional with a copy of this program and a copy of OSHA's respiratory protection standard. For each employee requiring evaluation, the health care professional will be provided with information regarding the employee's work area or job title, proposed respirator type and weight, length of time required to wear the respirator, expected physical work load (light, moderate, or heavy), potential temperature and humidity extremes, and any additional protective clothing required.

- After an employee has received clearance to wear a respirator, additional medical evaluations will be provided under any of the following circumstances:
  - ✓ The employee reports signs and/or symptoms related to their ability to use a respirator, such as shortness of breath, dizziness, chest pains, or wheezing;
  - ✓ The health care professional or supervisor informs the Program Administrator that the employees needs to be reevaluated;
  - ✓ Information from this program, including observations made during fit testing and program evaluation, indicates a need for reevaluation; and
  - ✓ A change occurs in workplace conditions that may result in an increased physiological burden on the employee.

Note: *All examinations and questionnaires are to remain confidential between the employee and the physician.*

Fit Testing Procedures

_____ *(Name of responsible person or department)* will ensure that fit-test will be administered using an OSHA-accepted qualitative fit test (QLFT) or quantitative fit test (QNFT) protocol. The OSHA-accepted QLFT and QNFT protocols are contained in Appendix A of the Respiratory Standard (1910.134).

_____ *(Municipal Entity Name)* requires employees to be fit tested at the following times and with the same make, model, style, and size of respirator that they will be using.

- Before being allowed to wear any respirator with a tight-fitting facepiece and at least annually thereafter;
- Whenever a different respirator facepiece (size, style, model, or make) is used;
- Whenever a visual observation of changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight; and
- Upon employee notification that the fit of the respirator is unacceptable.

The _____ *(Insert name of responsible department)* has established a record of the fit tests administered to employees including:

- The name or identification of the employee tested;
- Type of fit test performed;
- Specific make, model, style, and size of respirator tested;
- Date of test; and
- The pass/fail results.

Use Of Respirators

General Use Procedures

- Employees will use their respirators under conditions specified by this program, and in accordance with the training they receive on the use of each particular model. In addition, the respirator shall not be used in a manner for which it is not certified by NIOSH or its manufacturer.
- All employees are to conduct user seal checks each time that they wear their respirator. Employees are to use either the positive or negative pressure check (depending on which test works best for them) specified in Appendix B-1 of the Respiratory Protection Standard.
- All employees are permitted to leave the work area to maintain their respirator for the following reasons: to clean their respirator if the respirator is impeding their ability to work, change filters or cartridges, replace parts, or to inspect respirator if it stops functioning as intended. Employees are to notify their supervisor before leaving the area.
- Employees are not permitted to wear tight fitting respirators if they have any condition, such as facial hair, facial scars, or missing dentures that prevents them from achieving a good seal. Employees are not permitted to wear headphones, jewelry, or other articles that may interfere with the facepiece to face seal.

Emergency Procedures

The following work areas, tasks and job sites have been identified as having foreseeable emergencies *(Insert any areas that apply)*:

- _____
- _____
- _____

Emergency escape respirators are located: _____ *(Insert Location)*.

Immediately Dangerous to Life or Health (IDLH) Procedures

The Program Administrator has identified the following area(s) as presenting the potential for IDLH conditions *(Insert any areas that apply)*:

- _____
- _____
- _____

Respirator Malfunction

For any malfunction of a respirator (e.g., such a breakthrough, facepiece leakage, or improperly working valve), the respirator wearer should inform his or her supervisor that the respirator no longer functions as intended, and go to a safe area to maintain the respirator. The supervisor must ensure that the employee receives the needed parts to repair the respirator, or is provided with a new respirator.

Maintenance and Care Procedures

In order to ensure continuing protection from the respirators being used, it is necessary to establish and implement proper maintenance and care procedures and schedules. The respirators may not deliver the assumed protection unless they are kept in good working order.

Cleaning & Disinfecting

_____*(Municipal Entity Name)* provides each respirator user with a respirator that is clean, sanitary, and in good working order. Respirators are cleaned and disinfected _____ *(Indicate Frequency, e.g., Daily, Weekly, etc.)* or as often as necessary to be maintained in a sanitary condition. Respirators are cleaned and disinfected using the procedures specified in Appendix B of the standard or manufacturer's recommendations.

Respirators are cleaned and disinfected:

- As often as necessary when issued for the exclusive use of one employee;
- Before being worn by different individuals;
- After each use for emergency use respirators; and
- After each use for respirators used for fit testing and training.

Storage

Storage of respirators must be done properly to ensure that the equipment is protected and not subject to environmental conditions that may cause deterioration. Respirators are stored to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, and damaging chemicals. They are packed and stored in _____ *(Indicate methods used for storage and location)*, in accordance with any applicable manufacturer's instructions.

Emergency respirators are stored:

- To be accessible to the work area;
- In compartments marked as such; and
- In accordance with manufacturer's recommendations.

Respirator Inspection

All respirators will be inspected after each use and at least monthly. Should any defects be noted, the respirators will be taken to the program administrator or supervisor. Damaged respirators will be either repaired or replaced.

Respirators are inspected as follows:

- All respirators used in routine situations are to be inspected before each use and during cleaning;
- All respirators maintained for use in emergency situations are to be inspected at least monthly and in accordance with manufacturer's recommendations, and are checked for proper function before and after each use; and
- Emergency escape-only respirators are inspected before being carried into the workplace for use.

Respirator inspections include the following:

- A check of respirator function, tightness of connections, and the condition of the various parts including, but not limited to, the facepiece, head straps, valves, connecting tube, and cartridges, canisters or filters; and
- Check of elastomeric parts for pliability and signs of deterioration**.**

The following checklist will be used when inspecting respirators:

- Facepiece:
  - ✓ Cracks, tears, or holes
  - ✓ Facemask distortion
  - ✓ Cracked or loose lenses/face shield
- Headstraps:
  - ✓ Breaks or tears
  - ✓ Broken buckles
- Valves:
  - ✓ Residue or dirt
  - ✓ Cracks or tears in valve material

- Filters/Cartridges:
  - ✓ Approval designation
  - ✓ Gaskets
  - ✓ Cracks or dents in housing
  - ✓ Proper cartridge for hazard
- Air Supply Systems:
  - ✓ Breathing air quality/grade
  - ✓ Condition of supply hoses
  - ✓ Hose connections
  - ✓ Settings on regulators and valves

Training

_____ *(Name of responsible person or department)* will be responsible to provide training to respirator users and their supervisors on the contents of the Respiratory Protection Program and their responsibilities under it, and on the OSHA Respiratory Protection Standard. Employees will be trained prior to using a respirator in the workplace. Supervisors will also be trained prior to using a respirator in the workplace or prior to supervision of employees that must wear respirators.

The training will cover the following topics:

- The _____ *(Municipal Entity or Department)* Respiratory Protection Program
- The OSHA Respiratory Protection Standard
- Respiratory hazards encountered and their health effects
- Proper selection and use of respirators
- Limitations of respirators
- Respirator donning and user seal (fit) checks
- Fit testing
- Emergency use procedures
- Maintenance and storage
- Medical signs and symptoms limiting the effective use of respirators

Employees will be retrained annually or as needed (e.g., if they need to use a different respirator). Employees must demonstrate their understanding of the topics covered in the training utilizing a hands-on exercise and a written test. Respirator training will be documented by the Program Administrator and the documentation will include the type, model, and size of respirator for which each employee has been trained and fit tested.

Program Evaluation

The program administrator will conduct periodic evaluations of the workplace to ensure that the provisions of this program are being implemented. The evaluation will include regular consultations with employees who use respirators and their supervisors, site inspections, air monitoring and review of records.

Identified problems will be noted and addressed by the Program Administrator. These findings will be reported to management, and the report will list plans to correct deficiencies in the respirator program and target dates for the implementations of those corrections.

Documentation and Recordkeeping

A written copy of this program and the OSHA standard is kept in the Program Administrator's office and is available to all employees who wish to review it.

Also maintained in the Program Administrator's office are copies of training and fit test records. These records will be updated as new employees are trained, as existing employees receive refresher training, and as new fit tests are conducted.

The Program Administrator will also maintain copies of the medical records for all employees covered under the respirator program. The completed medical questionnaire and the physician's documented findings are confidential and will remain at _____ *(Location, e.g., clinic)*. The municipality will only retain the physician's written recommendation regarding each employee's ability to wear a respirator.

Sample Required Respirator Use Log

_____

(Municipal Entity Name)

Voluntary And Required Respirator Use	
RESPIRATOR	**DEPARTMENT/PROCESS**
Example: *Filtering facepiece (dust mask)*	*Voluntary use when mowing*
Example: *Half-facepiece APR or PAPR with P100 filter*	*Voluntary use for maintenance workers when cleaning spray booth walls or changing spray booth filter*

Sample Hazard Assessment

_____

(Municipality Entity Name)

HAZARD ASSESSMENT

Date: _____

Department	Contaminants	Exposure Level (8 hrs TWA)	PEL/TLV	Controls
Example: *Mowing Park Areas*	*General dust, soil*	*2.5 - 7.0 mg/m^3*	*15 mg/m^3* *(Total Particulate)* *(TLV = 10mg/m^3)*	*Direct mower chute downwind when possible.* *Select mower cutting route mower to allow dust to drift out of area before mowing thru the airborne dust cloud.* *Avoid cutting on dry windy days.*

Appendix T: Sun Safety

Sun Safety

Sunlight contains ultraviolet (UV) radiation, which causes premature aging of the skin, wrinkles, cataracts, and skin cancer. The amount of damage from UV exposure depends on the strength of the light, the length of exposure and whether the skin is protected. *There are no safe UV rays or safe suntans.*

Skin Cancer

Sun exposure at any age can cause skin cancer. Be especially careful in the sun if you burn easily, spend a lot of time outdoors, or have any of the following physical features:

- Numerous, irregular or large moles
- Freckles
- Fair skin
- Blond, red or light brown hair

Self-Examination

It's important to examine your body monthly because skin cancers detected early can almost always be cured. The most important warning sign is a spot on the skin that is changing in size, shape or color during a period of 1 month to 1 or 2 years.

Skin cancers often take the following forms:

- Pale, wax-like, pearly nodules
- Red, scaly, sharply outlined patches
- Sores that don't heal
- Small, mole-like growths—melanoma, the most serious type of skin cancer If you find such unusual skin changes, see a health care professional immediately.

Appendix U: Tire Changing – Single and Multi-Piece Rim Wheels

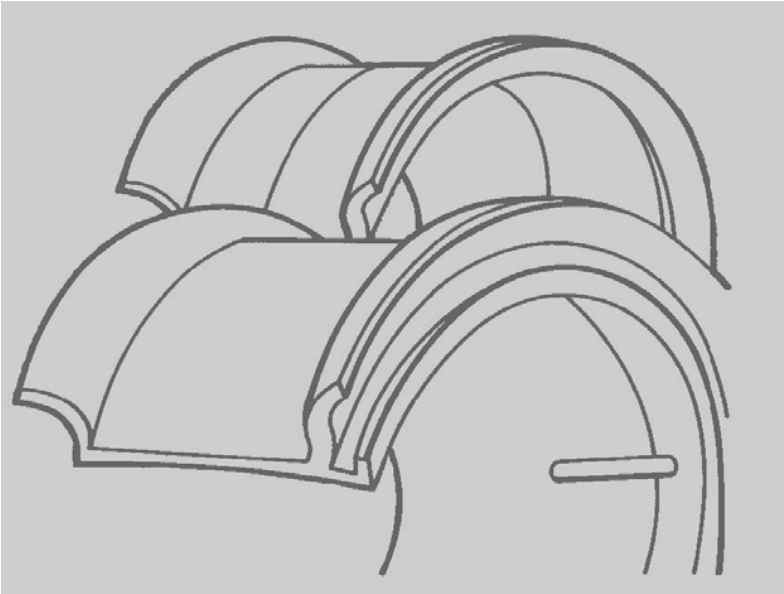
Consult the equipment manufacturer's instructions and follow all safety guidelines before changing tires and working on single and multi-piece rim wheels.

The information below is from OSHA and provides a generic, non-exhaustive overview. This publication does not itself alter or determine compliance responsibilities, which are set forth in OSHA standards themselves, and the *Occupational Safety and Health Act*.

Moreover, because interpretations and enforcement policy may change over time, for additional guidance on OSHA compliance requirements, the reader should consult current administrative interpretations and decisions by the Occupational Safety and Health Review Commission and the courts.

What Are Rim Wheels and Tires?

A rim wheel is the component assembly of wheel (either multi-piece or single-piece), tire and tube, plus other components. A single-piece wheel is the component of the assembly used to hold the tire, form part of the air chamber (with tubeless tires), and provide the means of attachment of the assembly to the vehicle axle. A multi-piece wheel is a vehicle wheel consisting of two or more parts, one of which is a side or locking ring that holds the tire and other components on the rim wheel by interlocking the components when the tire is inflated.



Why Are Safety Standards Needed for Servicing Single-Piece and Multi-Piece Rim Wheels?

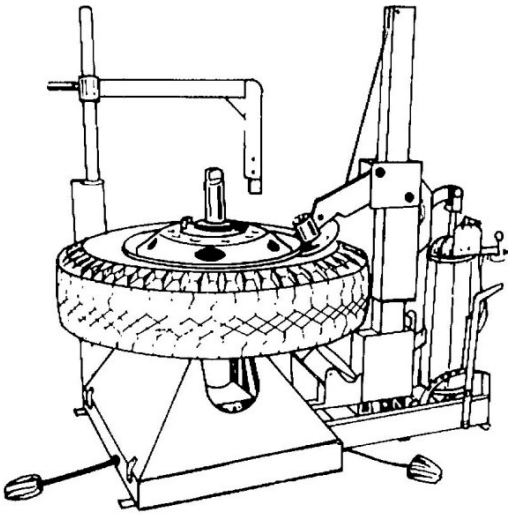
Approximately 322,000 employees in more than 100,000 workplaces service large vehicle tires that are mounted on either multi-piece or single-piece wheels. In 1984, OSHA amended the safety standard for servicing multi-piece rim wheels (*29 Code of Federal Regulations 1910.177*) to include requirements for the safe servicing of single-piece rim wheels used on large trucks, trailers, buses, and off-road machines. OSHA's standard does not apply to the servicing of rim wheels utilizing automobile tires or to trucks designated “LT” (light trucks).

The amended safety standard for servicing single-piece and multi-piece rim wheels has four major requirements: (1) training for all tire servicing employees; (2) the use of industry-accepted procedures that minimize the potential for employee injury; (3) the use of proper equipment such as clip-on chucks, restraining devices or barriers to retain the wheel components in the event of an incident during the inflation of tires; and (4) the use of compatible components.

There has been a more than 70-percent reduction in multi-piece rim wheel servicing injuries since the original standard was issued in 1980 -- based on a review of the record of multi-piece rim wheel accidents investigated by OSHA. Similar results have been experienced with the regulation of single-piece rim wheel servicing where workers also face a significant risk of serious injury or death.

What Are The Hazards of Working With These Large Vehicle Tires?

The principal difference between accidents involving single-piece rim wheels and those involving multi-piece rim wheels is the effect of the sudden release of the pressurized air contained in a single-piece rim wheel. Single-piece rim wheel accidents occur when the pressurized air contained in the tire is suddenly released, either by the bead breaking or by the bead slipping over the rim flange. The principal hazards involve pressurized air which, once released, can either hurl an employee across the shop if the employee is in close proximity to the rim wheel and within the trajectory, or can propel the rim wheel across the workplace and into a worker. The trajectory of the air or rim wheel is any potential path or route (basically along the axis of the rim wheel) that a rim wheel component may travel during an explosive separation, or the area into which the air blast from a single-piece rim wheel may be released. In a multi-piece rim wheel accident, the wheel components separate and are released from the rim wheel with violent force. The severity of the hazard is related not only to the air pressure but also to the air volume.



What Are Safe Operating Procedures for Single-Piece Rim Wheels?

Employees must be instructed in and must use the following steps for safe operating procedures with single-piece wheels:

- The tire must be completely deflated by removing the valve core before demounting.
- Mounting and demounting of the tire must be performed only from the narrow ledge side of the wheel. Care must be taken to avoid damaging the tire beads, and the tire must be mounted only on a compatible wheel of mating bead diameter and width.
- A noninflammable rubber lubricant must be applied to bead and wheel mating surfaces before assembling the rim wheel, unless the tire or wheel manufacturer recommends against the use of any rubber lubricant.
- If a tire changing machine is used, the tire may be inflated only to the minimum pressure necessary to force the tire bead onto the rim ledge and create an airtight seal before removal from the tire changing machine.
- If a bead expander is used, it must be removed before the valve core is installed and as soon as the rim wheel becomes airtight (when the tire bead slips onto the bead seat).
- The tire may be inflated only when contained within a restraining device, positioned behind a barrier, or bolted on the vehicle with the lug nuts fully tightened.
- The tire must not be inflated when any flat, solid surface is in the trajectory and within 1 foot (30.48 centimeters) of the sidewall.
- The tire must not be inflated to more than the inflation pressure stamped in the sidewall unless a higher pressure is recommended by the manufacturer.
- Employees must stay out of the trajectory when the tire is being inflated.
- Heat must not be applied to a single-piece wheel.
- Cracked, broken, bent, or otherwise damaged wheels must not be reworked, welded, brazed or otherwise heated.

What Are Safe Operating Procedures for Multi-Piece Rim Wheels?

Employers must instruct employees to use the following steps for safe operating procedures:

- The tire must be completely deflated by removing the valve core before a rim wheel is removed from the axle –
  - ✓ When the tire has been driven underinflated at 80 percent or less of its recommended pressure; or
  - ✓ When there is obvious or suspected damage to the tire or wheel components.
- The tire must be completely deflated by removing the valve core before demounting.
- A rubber lubricant must be applied to the bead and rim mating surfaces when assembling the wheel and inflating the tire unless the tire or wheel manufacturer recommends against its use.
- If a tire on a vehicle is underinflated but has more than 80 percent of the recommended pressure, the tire may be inflated while the rim wheel is on the vehicle, provided remote control inflation equipment is used, and no employee remains in the trajectory during inflation.
- The tire shall be inflated outside a restraining device only to a pressure sufficient to force the tire bead onto the rim ledge and create an airtight seal with the tire and bead.
- Whenever a rim wheel is in a restraining device, the employee must not rest or lean any part of his/her body, or equipment, on or against the restraining device.
- After tire inflation, the tire and wheel must be inspected while still within the restraining device to make sure that they are properly seated and locked. If further adjustment is necessary, the tire must be deflated by removing the valve core before the adjustment is made.
- An attempt must not be made to correct the seating of side and lock rings by hammering, striking, or forcing the components while the tire is pressurized.
- Cracked, broken, bent or otherwise damaged wheel components must not be reworked, welded, brazed, or otherwise heated. Heat must not be applied to a multi-piece wheel.
- Whenever multi-piece rim wheels are being handled, employees must stay out of the trajectory unless the employer can show that performance of the servicing makes the employee's presence in the trajectory necessary.

The employer must furnish a restraining device for inflating a tire on a multi-piece wheel, or must provide a restraining device or barrier for inflating a tire on a single-piece wheel unless the single-piece rim wheel is bolted onto a vehicle during inflation. In all cases the employee must stay out of the trajectory.

What Servicing Equipment Must Be Supplied?

The restraining device can be a cage, rack, or an assemblage of bars and other parts that will constrain all rim wheel components during an explosive separation of the multi-piece wheel or during the sudden release of the contained air of a single-piece rim wheel.

A barrier can be a fence, wall, or other structure or object placed between a single-piece rim wheel and an employee during tire inflation to contain the rim wheel components in the event of the sudden release of contained air. Each barrier or restraining device must be able to withstand the maximum force of an explosive rim wheel separation or release of the pressurized air occurring at 150 percent of the maximum tire specification pressure for the rim wheel being serviced.

Restraining devices showing any of the following defects must be immediately removed from service:

- Cracks at welds;
- Cracked or broken components;
- Bent or sprung components caused by mishandling, abuse, tire explosion, or rim wheel separation; or
- Component pitted due to corrosion or other structural damage that would decrease its effectiveness.

Restraining devices or barriers removed from service must not be returned to service until they are repaired and re-inspected. Restraining devices or barriers requiring structural repair such as component replacement or rewelding must not be returned to service until they are certified by either the manufacturer or a Registered Professional Engineer as meeting the strength requirements as stated above (the force of 150 percent of the maximum tire specification pressure).

Current charts or a rim manual containing instructions for the types of wheels being serviced must be available in the service area, including a mobile service unit. Only tools that are recommended in the rim manual may be used for the type of wheel being serviced.

The employer must also supply airline equipment with a clip-on chuck with sufficient length of hose between the chuck and in-line valve or regulator to allow the employee to stand outside the trajectory, as well as an in-line valve with a pressure gauge or a pre-settable regulator.

The size (bead diameter and tire/wheel width) and type of both the tire and wheel must be checked for compatibility prior to assembly of the rim wheel. Mismatching of half sizes such as 16-inch (40.6 centimeters) and 16.5 inch (42 centimeters) tires and wheels must be avoided.

Multi-piece wheel components must not be interchanged except as indicated in the applicable charts or rim manuals.

Multi-piece wheel components and single-piece wheels must be inspected prior to assembly. Any wheel or wheel component that is bent out of shape, pitted from corrosion, broken, or cracked must be marked or tagged “unserviceable” and removed from the service area. Damaged or leaky valves must be replaced.

Rim flanges, rim gutters, rings, and the bead-seating areas of wheels must be free of any dirt, surface rust, scale, or loose or flaked rubber buildup prior to tire mounting and inflation.

What Training Is Required?

The employer must provide a program to train all employees who service rim wheels in the hazards involved and the safety procedures to be followed.

The employer must assure that no employee services any rim wheel unless the worker has been instructed in correct procedures of mounting, demounting, and other servicing activities, and the safe operating precautions for the type of wheel being serviced.

At a minimum, the training program must include the requirements of the OSHA standard and the information in the manufacturers' rim manuals or the OSHA charts. Charts are available from OSHA regional, area, or national offices.

The instruction must be conducted in an understandable way. Employees who are unable to read the charts or rim manuals must be trained in the subject matter. The employer must assure that each worker demonstrates and then maintains the ability to service rim wheels safely by correctly performing the following tasks:

- Deflating and demounting tires;
- Inspecting and identifying rim wheel components;
- Mounting tires, including inflating them within a restraining device or other safeguard;
- Handling rim wheels;
- Inflating tires when single-piece rim wheels are mounted on a vehicle;
- Understanding the necessity of standing outside the trajectory during inflation of the tires and of inspecting the rim wheels following inflation; and
- Installing and removing rim wheels.

The employer must regularly evaluate each employee's performance and provide additional training, as necessary, to assure that each employee maintains his/her proficiency.

Appendix V: Welding, Cutting and Brazing Safety and Health Guidelines

Only employees who have been trained in welding and the related health and safety controls are allowed to perform welding, cutting and brazing tasks. Health hazards from welding, cutting, and brazing operations include exposures to metal fumes and to ultraviolet (UV) radiation. Safety hazards from these operations include burns, eye damage, electrical shock, cuts, fires, explosions and crushed toes and fingers. Many of these can be controlled with proper work practices and personal protective equipment (PPE).

There are a variety of types of welding, cutting and brazing operations and each has specific hazards, precautions and operational considerations. The employees are to follow the manufacturers and suppliers instructions in addition to the guidelines below.

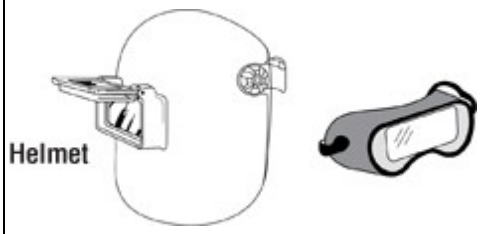
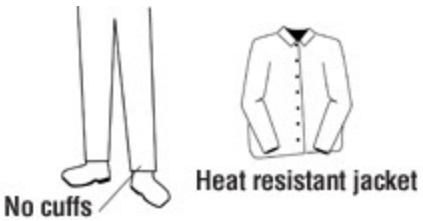
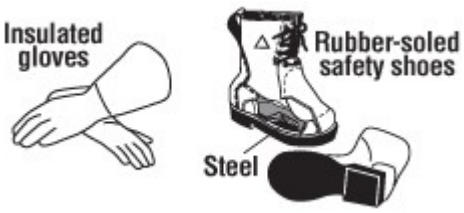
Work Area Preparation and Precautions

- Protect nearby combustible materials from sparks that might escape through openings in floors or walls.
- Fire extinguishers are to be ready for instant use.
- Fire watch lasting at least 30 min after welding or cutting operations is required if more than a minor fire might develop and if certain combustible materials are present.
- Post the area to warn others of the welding hazard.
- Authorization: A responsible individual is to inspect the area and designate precautions, preferably by written permit.
- Floors: Combustible materials are to be swept 35 feet away; combustible floors must are to be wetted or protected (while preventing arc welding shock).
- Ducts: Ducts & conveyor systems that might carry sparks must be shut down.
- Combustible walls are to be shielded or guarded.
- Noncombustible walls, partitions or ceilings (when welded) require opposite-side moving of combustibles or a fire watch.
- Combustible cover: No welding on certain metal building components having combustible covers or layers.
- Pipes (or any metal) close enough to combustibles to cause ignition by conduction may not be cut or welded.
- Used containers must be cleaned of flammable materials or other materials that could release toxic of flammable vapors when heated.

- Venting & purging is required for hollow spaces or cavities.
- Precautions are to be taken during long pauses in arc welding such as lunch breaks or overnight to prevent
- Accidental contact of electrodes
- Torch valve gas leaks in gas welding.
- When working above floor level a railing or other suitable fall protection must be provided as required.
- Welding cable and other equipment is to be kept clear of passageways, ladders and stairways.

Health and Safety Precautions

- Eye protection and protective equipment of specific types appropriate for the type of welding must be worn. The chart on the following page provides a summary of the common type of PPE required.
- Nearby workers are to be protected from arc welding rays
- Natural and Mechanical Ventilation
    - ✓ Is not to be restricted by screens
    - ✓ Is to be sufficient to keep air contaminant concentrations <PEL
- Mechanical ventilation is required for:
    - ✓ Spaces <10,000 feet per welder
    - ✓ Rooms with ceilings lower than 16 feet
    - ✓ Confined spaces or areas with barriers to natural cross ventilation
- Dilution ventilation is to be provided to move the fume away from the breathing zone.
- Local exhaust ventilation may be more effective and should be evaluated.

Welding - Personal Protective Equipment			
Body Part	**Equipment**	**Illustration**	**Reason**
Eyes and face	Welding helmet, hand shield, or goggles		Protects from: • radiation • hot slag, sparks • intense light • irritation and chemical burns Wear fire resistant head coverings under the helmet where appropriate
Lungs *(breathing)*	Respirators		Protects against: • fumes and oxides
Exposed skin *(other than feet, hands, and head)*	Fire/Flame resistant clothing and aprons		Protects against: • heat, fires • burns *<u>Notes</u>: pants should not have cuffs, shirts should have flaps over pockets or be taped closed*
Ears *(hearing)*	Ear muffs, ear plugs		Protects against: • noise Use fire resistant ear plugs where sparks or splatter may enter the ear.
Feet and hands	Boots, gloves		Protects against: • electric shock • heat • burns • fires

Cylinder Safety

- Cylinders are to be:
  - ✓ Approved
  - ✓ DOT compliant
  - ✓ Legibly marked
  - ✓ Equipped with ANSI compliant connections
  - ✓ Provided with valve protection
- Cylinder Storage Safety Considerations:
  - ✓ Keep away from heat sources
  - ✓ When inside buildings:
    - o Well-protected, ventilated, dry location at least 20 ft. from combustibles
    - o Assigned storage spaces, protected from damage & tampering
    - o When empty valves are to be closed
    - o When not in use provided with hand-tight valve protection caps
- Oxygen Cylinder Storage - Protect oxygen cylinders from fire hazards such as acetylene. Use the following safe distances:
  - ✓ Distance: ≥ 20 ft. from fuel-gas cylinders or combustibles, or
  - ✓ Barrier: ≥ 5 ft. high noncombustible partition with half-hour fire-resistance rating

Arc Welding & Cutting

- Electrode holders when not in use are to be kept from shocking people and objects.
- Protect against electric shock:
  - ✓ Never use cables with splices within 10 feet (3 m) of the holder.
  - ✓ The welder should not coil or loop welding electrode cable around parts of their body.
  - ✓ Damaged cables & equipment are to be replaced.
  - ✓ Work and cables are to be joined properly and have adequate insulation.

Operating Procedures

- Cylinders, cylinder valves, couplings, regulators, hose, and apparatus are to be kept free from oily or greasy substances.
- Oxygen cylinders are not to be handled with oily hands or gloves.
- A jet of oxygen must never be permitted to strike an oily surface, greasy clothes, or enter a fuel oil or other storage tank.

- When transporting cylinders by a crane:
  - ✓ Use a cradle or suitable platform
  - ✓ Never use slings or electric magnets
  - ✓ Valve protection caps are to always be in place
  - ✓ Do not use valve protection caps to lift cylinders
- Never use bars under valves or valve-protection caps to pry cylinders loose. If frozen, try warm (not boiling) water.
- Before cylinders are moved (unless they are secured to a special truck):
  - ✓ Regulators are to be removed
  - ✓ Valve-protection caps, when provided for, shall be put in place
- Cylinders without fixed hand wheels are to have keys, handles, or nonadjustable wrenches on valve stems while cylinders are in service.
- Fuel-gas cylinders are to be placed with valve end up whenever they are in use.
- Liquefied gases are to be stored and shipped with the valve end up.
- Before connecting a regulator to a cylinder valve:
  - ✓ Open the valve slightly; close immediately
  - ✓ Open the valve while standing to one side of the outlet; never in front of it
  - ✓ Never crack a fuel-gas cylinder valve near other welding work or near sparks, flame, or other possible sources of ignition
- Always open the cylinder valve slowly.
- Never open an acetylene cylinder valve more than 1.5 turns of the spindle, and preferably no more than 3/4 of a turn.
- Hose & Hose Connections:
  - ✓ Replace hoses with leaks, burns, worn places, defects
  - ✓ When parallel lengths of oxygen and fuel hose are taped together, not more than 4 of 12 inches can be covered by tape

Appendix W: Workplace Violence Prevention Training Outline

Employer Name: _____ Date: _____

Every employer shall provide each employee with information and training on the risk of workplace violence in their workplace or workplaces at the time of the employee's initial assignment and at least annually thereafter.

Any substantial change to the workplace violence program must be communicated to employees.

Upon completion of the workplace violence prevention program all employees must be provided information and training on:

- Requirements of the regulation (12NYCRR Part 800.6)
- Risk factors specific to the workplace that were identified in the risk evaluation and determination (Step 2 of the How to Comply Guide)
- Measures that employees can take to protect themselves from the identified risks including specific procedures that the employer has implemented such as
  - ✓ Incident alert and notification procedures
  - ✓ Appropriate work practices
  - ✓ Emergency procedures
  - ✓ Use of security alarms and other devices
- Procedures to report incidents of workplace violence
- Location of the written workplace program and how to obtain a copy[2]

Note: *Information otherwise kept confidential for security reasons does not have to be disclosed to all employees. Examples of confidential information include but are not limited to information that would interfere with law enforcement investigations or judicial proceedings, would deprive a person of a right to a fair trial, would identify a confidential source or disclose confidential information relating to a criminal investigation, would reveal criminal investigative techniques or procedures except routine techniques and procedures, or would endanger the life or safety of any person.*

[2] This part of the training requirements only applies to employers with 20 or more full-time permanent employees.

Sample Workplace Violence Incident Report

Workplace Violence Incident Report

1. Date of Incident: _____

2. Time of day/shift when the incident occurred:

_____

3. Workplace Location where incident occurred:

_____

4. Provide a detailed description of the incident including:

- Events leading up to the incident and how the incident ended;
- Names and job title of involved employee(s);
- Name or other identifier of other individuals involved;
- Nature and extent of injuries arising from the incident and;
- Name of witnesses

_____
_____
_____
_____
_____
_____
_____
_____
_____

Date: _____

Name of Employee Reporting the Incident *(Optional)*: _____

Note: *Refer to 12 NYCRR Part 800.6 Section (i)(3)(ii) for special instruction on privacy concern cases. Print additional sheets if necessary.*

Appendix X: Workplace Violence Evaluation of Physical Environment

Employee Name: _____ Date: _____

Evaluation of the Physical Environment 800.6(f)(3)				
Employer and Location:				
Names of persons conducting the evaluation:				
Date of Assessment:				
Please note: This section requires the participation of the Authorized Employee Representative(s) **Instructions**: All sections below refer to present conditions. Check "NA" for any items you do not consider applicable to the worksite/facility being evaluated. Using the information from Sections 1-3 and your working knowledge of the building describe in Section 4 the building i.e. number of stories, number of entrances and exits, of employees, access to the building, security features, areas of concern related to security. Using the information from Section 1-4 list the specific hazards related to this evaluation in Section 5.				
Items	**Yes**	**No**	**NA**	
1. Security Features				**Notes/Comments**
Reception Area Available				
Barriers to Separate Clients from Work Area				
Separate Interview Area(s)				
Emergency Numbers Posted by Phones				
Multiple Exits				
Unobstructed Office Exits				
Door Control(s) i.e. locks, remote buzzer, panic bars				
Door Detector(s) door alarm				
Adequate lighting in and around the workplace				
Parking lot well lighted				
Panic Button(s)				
Video Monitor(s)				
Landscaping to provide unobstructed view of the workplace				
Limiting the posting of signs on windows				
Other:				

Employee Name: _____ Date: _____

2. Factors That Might Place Employees at Risk:				
Work in public settings-e.g. Health Care, Police Officers, Firefighters, Social Workers				
Work late night or early morning hours				
Exchange money with the Public				
Work alone or in small numbers				
Work in a location with uncontrolled public access				
In areas of previous security concerns				
Any other factors that my place employees at risk				
3. Security Guards				
Are Security Guards present at the location?				
Are they posted at Entrance(s)				
Do they patrol the Building				
Are they provided with communication?-If yes, indicate what type in Notes.				
Any other relevant information				
4. Description of the Building Instruction: Using the information from Sections 1-3 and your working knowledge of the building describe in Section 4 the building i.e. number of stories, number of entrances and exits, number of employees, access to the building, security features, areas of concern related to security.				

Employee Name: _____ Date: _____

5. Specific Hazards **Instruction:** *Using the information from Section 1-4 list the specific hazards related to this evaluation in Section 5.*

Appendix Y: Sample Workplace Violence Record Log

Employer Name: _____ Date: _____

Records Examination 800.6(f)(1)	
Location:	
Date of Assessment:	
Instructions: Examine records below from the previous year. Examine to identify patterns of injuries in particular areas of the workplace or incidents which involve specific operations or specific individuals. Record the results in the column to the right.	
1. Record Examination	***Results of the examination***
1. Log of Work Related Injuries and Illnesses (Form SH900) **2. Summary of Work Related Injuries and Illnesses (Form 900.1)** **3. Injury and Illness Incident Report (Form SH900.2)**	
Workplace Violence Incident Reports	

Employer Name: _____ Date: _____

Personnel Disciplinary Reports	
Workers Compensation Reports	
Any Other Internal Reports Related to Workplace Violence	

Employer Name: _____ Date: _____

Assessment of Relevant Policies Work Practices and Procedures 800.6(f)(2)
Instructions: Conduct an assessment of policies, work practices and work procedures that may impact the risk of workplace violence. Examples of relevant policies include: • Domestic Violence • Sexual Harassment • Visitation Policies • Policies relevant to the care and treatment of client, patients and inmates may be part of this assessment • Policies for staff in field travel assignments (daily check-in procedures, itineraries, cell phones provided for check in) Examples of work practices and procedures: 1. Visitor/Client Sign In/Out 2. Visitor(s)/Client(s) Escorted 3. One Client Entrance Used 4. Desks Clear of Objects which may become weapons(might be relevant in situations where dealing with the public) 5. I.D Badges Used 6. Left an itinerary with contact information 7. Have periodic check-in procedures 8. After hours contact procedures 9. Know procedures if involved in incident (see also Training Section) 10. Know how to control/defuse potentially violent situations 11. Supplied with personal alarm/cellular phone/radio 12. Limit visible clues of carrying money/valuables 13. Partnering arrangements if deemed necessary Record the results of the assessment and any associated risks below.
2. Results of the Assessment