Safety Policy Manual

ASBESTOS POLICY

PURPOSE

The purpose of this program is to establish guidelines and procedures in the operation, maintenance, identification and reporting of asbestos containing materials (ACM) in the City of Madison. These guidelines and procedures are designed to protect all employees, contractors, visitors and vendors from potential health hazards and related diseases resulting from asbestos exposure.

This program applies to all buildings and structures owned by the City of Madison, to occupants of the City of Madison buildings and to external organizations that may come into contact with or disturb asbestos containing material in the City of Madison buildings. The program applies to routine work during which an employee might encounter asbestos as well as work undertaken to repair or remove asbestos containing material.

This policy complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code as created by the Wisconsin Department of Safety and Professional Services, 29 CFR Part 1910.1001 (Asbestos) as created by the U.S. Occupational Safety and Health Administration, NR447 (Control of Asbestos Emissions) of the Wisconsin Administrative Code as created by the Wisconsin Department of Natural Resources, HFS159 (Asbestos Certification and Training Accreditation) of the Wisconsin Administrative Code as created by the Wisconsin Department of Health and Family Services and all applicable regulations as created by the U.S. Environmental Protection Agency.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy

Asbestos Control Program Coordinator

- A Certified Asbestos Inspector to identify Asbestos Containing Material (ACM) & Presumed Asbestos Containing Material (Presumed) throughout the City of Madison facilities.

Department Heads

- Implement this policy

Supervisors

- Ensure policy is adhered to by all employees

ASBESTOS POLICY

Employees

- Follow policy requirements.

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

- Asbestos - is a generic term describing a family of naturally occurring fibrous silicate minerals. As a group, the minerals are noncombustible, do not conduct heat or electricity and are resistant to many chemicals. Although there are several other varieties that have been used commercially, the most common asbestos mineral types likely to be encountered in the City of Madison buildings are chrysotile (white), amosite (brown), and crocidolite (blue asbestos).
- Asbestosis - is a non-malignant, irreversible disease resulting in fibrosis (scarring) of the lung.
- Asbestos containing material (ACM) - means any material containing more than 1% asbestos.
- H.E.P.A filter - High Efficiency Particulate Air filter, which filters out 99.97% of contaminants such as asbestos, lead or mold spores.
- Friable Asbestos - friable asbestos material means finely divided asbestos or asbestos containing material or any asbestos-containing material that can be crumbled, pulverized or powdered by hand pressure. Individual fibers in friable asbestos-containing material can potentially become airborne and can then present a health hazard. Three types of friable material commonly used in buildings are:
    1) Sprayed fibrous fireproofing
    2) Decorative or acoustic texture coatings
    3) Thermal System Insulation (TSI)
- Mesothelioma - cancer of the mesothelium, the lining of the chest or the lining of the abdominal wall.
- Miscellaneous materials - all other asbestos containing materials other than surfacing and T.S.I.
- O & M - operations and maintenance.
- Non-friable asbestos - includes a range of products in which asbestos fiber is effectively bound in a solid matrix from which asbestos fiber cannot normally escape. Non-friable asbestos includes a variety of products including asbestos cement tiles and boards and asbestos reinforced vinyl floor tiles. Cutting, braking, sanding, drilling or similar activities can release asbestos fiber from even non-friable asbestos materials.
- Presumed asbestos containing material (PACM) - means thermal system insulation and surfacing material presumed to be asbestos.
- Permissible exposure limit (PEL) - permissible exposure limit; 0.1 fibers per CC (time weighted average) surfacing Material – sprayed, troweled or surface applied materials.
- T.S.I - thermal system insulation; material applied to pipes, fittings, tanks, ducts, etc. to prevent heat loss or gain or serve as condensation control.

ASBESTOS POLICY

DEPARTMENTAL REQUIREMENTS

This policy represents minimum requirements for the identification and control of asbestos containing materials. Facilities will be required to conduct an asbestos inspection before any major renovation or demolition, to determine if there is any ACM (asbestos containing material) or PACM (presumed asbestos containing materials). Once an inspection has been completed and the testing of any questionable materials has been verified by test results, abatement of ACM or PACM will take place.

TRAINING

All personnel who may reasonably come into contact with ACM or PACM, and all custodial (contractor or otherwise) and Facilities Management employees will receive asbestos awareness training.

It is the City of Madison's policy that only qualified individuals shall be involved in any asbestos disturbances, repairs, maintenance or removal. Department heads are responsible to notify the Asbestos Control Officer, prior to initiating any remodeling or construction project in order to investigate the potential for asbestos containing materials. All unqualified employees shall be protected from exposure to asbestos fibers by isolating and controlling access to all affected areas during asbestos containing material work or suspected asbestos containing material work. Only state certified and licensed asbestos professionals, according to all applicable regulations, will conduct tasks involving the disturbance, repairs, and maintenance of asbestos containing material.

DOCUMENTATION REQUIREMENTS

The City of Madison will maintain asbestos inspection records on all City-owned facilities where asbestos inspections or abatement has taken place. These reports and other asbestos work (abatement, demolition, disposal, and inspections) will be maintained by the Asbestos Control Program Coordinator as regulated by SPS 332 and NR 447.

COMPETENT PERSON

The Asbestos Control Program Coordinator shall serve as the designated "Competent Person" who will be in charge of the City's asbestos program and will be responsible for City-wide planning and monitoring activities relating to asbestos.

GENERAL REQUIREMENTS

Asbestos inspections will be conducted in City-owned buildings to identify all ACM and PACM before any major renovation or demolition takes place.

A determination will be made as to whether ACM or PACM is capable of releasing fibers into the air.

A specific Operations and Maintenance (O&M) Program will be established for each facility to monitor ACM or PACM over its lifetime to ensure a fiber release episode does not occur where identified and left in place.

Routine maintenance operations will be conducted in a manner that controls damage to ACM / PACM, and prevents employee exposures to asbestos.

If ACM / PACM poses a reasonable possibility of fiber release, an appropriate method of control will be implemented.

All work near or with asbestos containing material or presumed asbestos containing material will be accomplished by an certified asbestos abatement contractor unless otherwise specifically authorized by the Program Coordinator.

All contractors hired by the City of Madison for asbestos related work meet the requirements of all applicable regulations.

No construction, demolition, or renovation activity in any City-owned building constructed prior to 1980 may disturb any ACM/PACM without prior approval by the Program Coordinator.

Documentation of any activity involving asbestos material activity will be part of the City's normal conduct of business.

BUILDING INSPECTIONS

The Program Coordinator will assist with asbestos compliance for City-owned facilities for the identification and the location of all ACM / PACM.

Inspections may include a review of building records, physical inspection and sampling of suspect areas as appropriate. All asbestos containing materials capable of fiber release will be noted by location, type, condition, and prioritized by areas needing immediate abatement action. All samples will be collected in a manner to avoid fiber release and personal exposure.

For the purpose of this program, friable asbestos is defined as, any ACM/PACM of more than 1 percent asbestos by weight, which can be crumbled, pulverized, or reduced to powder by hand pressure. Dry non-friable ACM may also pose a hazard when special circumstances arise and should also be noted in the survey.

The condition of ACM/PACM can deteriorate resulting in the release of fibers. Each custodial and maintenance worker must be instructed to report, on a daily basis, any observed deterioration of ACM to his or her Supervisor, who in turn must notify Asbestos Control Officer.

ASBESTOS CONTROL MEASURES

Asbestos control measures are methods used to prevent the release of fibers in asbestos containing materials. All of the following are types of asbestos control measures:

- Asbestos inspections / surveys.
- Operations and maintenance (O & M) programs.
- Re-inspections of ACM.
- Abatement which may include removal, enclosure or encapsulation.

Although removal of ACM is the only truly permanent solution, the presence of ACM in a building does not mean that the health of the building occupants is endangered. If ACM remains in good condition and is unlikely to be disturbed, exposure is negligible and removal is neither advisable nor recommended. In situations where removal is warranted, work will be done by qualified individuals operating in accordance with all applicable Federal, State and Local regulations and with stringent regard for the health and safety of all persons.

OPERATIONS AND MAINTENANCE PROGRAMS

The Program Coordinator will assist to develop specific O & M Programs for all City facilities requiring such a plan. Facilities Management or Public Works personnel will be the most active departments associated with this program through construction, renovation and custodial operations. Once the O & M Program has been implemented, The Program Coordinator will turn over full responsibility of managing the program to the Department Head of the Facilities Department.

NOTIFICATION

The Certified Inspector will document the results of asbestos sampling and location of the sampling and maintain these records. The inventory of sampling results shall contain the following information:

- type of asbestos-containing material (surfacing material, miscellaneous materials, or thermal system insulation);
- the location of the material;
- when it has been sampled, the type and percentage of asbestos present. Also included in the inventory information are sampling results showing the absence of asbestos in material that might be mistaken for an asbestos-containing material.

An asbestos identification system is used to alert people to the presence of asbestos. Asbestos is identified by tags, stickers, pipe labels, signs and other high visibility means. Where feasible, stickers indicate the presence of asbestos in thermal insulation, in asbestos board and tiles and in other locations. Warnings may also be placed near the entrance of rooms, particularly mechanical rooms, where unusually large amounts of asbestos may be present.

EXPOSURE CONTROL OF BLOODBORNE PATHOGENS POLICY

PURPOSE

This Exposure Control Plan (ECP) is designed to:

- Eliminate or minimize employee exposure to blood and other body fluids that may carry a risk of infection.
- Identify job titles and job tasks that carry a potential risk of exposure to bloodborne pathogens.
- Describe engineering controls, work practices, and personal protective equipment that can reduce the risk of exposure.
- Assure proper monitoring and treatment of employees who, in the performance of their duties, are exposed to potentially infectious materials.
- Comply with the Occupational Health and Safety Administration's (OSHA) Standard, 29 CFR 1910.1030, Bloodborne Pathogens.

The emphasis of this Plan is on prevention of exposure to three bloodborne viruses: Human Immunodeficiency Virus (HIV), Hepatitis B (HBV) and C (HCV). The term "bloodborne pathogens" includes any pathogenic microorganism that is present in human blood or OPIM and can infect and cause disease in persons who are exposed to blood containing the pathogen.

This emphasis should not be to the exclusion of potential exposure to other infectious agents including, for example, tuberculosis exposure to first responders, Hepatitis A exposure to employees who work with sewage and West Nile Virus exposure to employees working outside. A complete hazard assessment for these biological hazards should be conducted in addition to this Plan to control exposure to bloodborne pathogens.

This Plan is reviewed and updated at least annually and whenever necessary to reflect changes in job tasks or titles that may affect the risk of exposure. The Plan is also reviewed to include improved engineering controls or personal protective equipment (PPE) as new technology and equipment becomes available.

RESPONSIBILITIES

Department/Division Heads with Consultation of the Safety Coordinator

- Maintain review, and update the ECP at least annually.
- Provide and maintain engineering controls and PPE.
- Arrange for hepatitis B vaccines.
- Ensure that initial and annual training is provided.
- Ensure health and training records are maintained.

EXPOSURE CONTROL OF BLOODBORNE PATHOGENS POLICY

Supervisors

- Follow and ensure that their employees are trained in/on:
  - Universal Precautions
  - Proper work practices
  - Personal protective equipment, and
  - Proper clean up and disposal techniques

Employees

- Attending required training,
- Practicing universal precautions,
- Utilizing proper work practices and PPE,
- Using proper cleanup and disposal techniques
- Immediately reporting exposure incidents to their supervisor.

DEFINITIONS

- Blood - means human blood, human blood components, and products made from human blood.

- Bloodborne Pathogen – means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

- Contaminated – means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

- Contaminated Laundry – Means laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

- Contaminated Sharps – means any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wire.

- Decontamination – means the use of physical or chemical means to remove, inactivate or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

- Engineering Controls – means controls (e.g., sharps disposal containers, self-sheathing needles, safer medical devices, such as sharps with engineered sharps injury protections and needleless systems) that isolate or remove the bloodborne pathogens hazard from the workplace.

- Occupational Exposure – means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

- Parenteral – means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

- Universal Precautions – is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

- Work Practice Controls – means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

EXPOSURE DETERMINATION

The Department/Division Heads determines which employees have the potential for exposure to blood or other potentially infectious materials (OPIM) while performing certain job tasks. These job tasks shall be defined in **Appendix A** by the Department/Division Heads. These exposure determinations may be performed with the assistance of a qualified person, e.g., public health nurse, industrial hygienist, City Safety Coordinator or a committee of qualified persons with appropriate education, experience or training. This determination should always be made without regard to the use of personal protective equipment (PPE). "Good Samaritan" acts such as assisting a coworker with a nose bleed is not considered occupational exposure.

In Appendix A the list of job titles or job tasks will be updated as job titles or tasks change.

METHODS OF COMPLIANCE

"Methods of Compliance" is the term used by OSHA to describe measures that are taken to minimize or eliminate exposure to a workplace hazard. There are three types of "Methods of Compliance":

- Engineering Controls
- Work Practice Controls
- Personal Protective Equipment

Engineering and work practice controls should be implemented and considered to be the primary means of reducing exposure. When potential exposure remains after these controls have been put in place, PPE is required.

Engineering Controls

Engineering controls are those that eliminate or reduce the potential for exposure in a manner that requires little effort by an employee. The following engineering controls are used:

- Safety syringes
- Tools such as tongs, pliers, trash grabbers, brush and dustpan for retrieving broken glass or other sharp objects including needles

Engineering controls should be inspected and maintained or replaced on a regular schedule to ensure that they remain effective.

WORK PRACTICE CONTROLS

Universal Precautions or Body Substance Isolation

Employees are to use universal precautions or Body Substance Isolation to prevent contact with blood or OPIM. All blood or OPIM is considered capable of causing infection regardless of the perceived status of the source individual or the length of time that the material has been in the environment. The viruses, HIV, HBV, and HCV, are not transmitted by exposure to sweat, tears, or insect bites. There is no risk from exposure to urine, coughs or sneezing, unless there is visible blood. There is no risk from exposure to vomitus unless there is visible blood but it can be difficult, particularly in low light situations, to make this determination. If it is not possible to clearly see the body fluid, determine what type of fluid, or see visible blood, universal precautions should be used.

Avoid Splashing, Spraying, Creating an Aerosol

Procedures involving blood or OPIM should be performed in a manner that minimizes splashing, spraying, spattering, or otherwise creating droplets or an aerosol. For example, avoid using spray-on wound cleaners that lead to a release of blood or other body fluid.

Resuscitation Equipment

Resuscitation equipment including pocket masks, resuscitation bags, and other ventilation equipment is provided to eliminate the need for direct mouth to mouth contact.

Handling of Sharps and Broken Glass

The following work practices apply to handling contaminated needles and other sharps and broken glass:

- Recapping, bending, breaking or shearing contaminated needles is prohibited.
- The sharp or needle should be picked up while wearing sturdy gloves and using a trash grabber or pliers to pick up the sharp.
- The needle should be picked up by the blunt end.
- Pick up needles one at a time if there is more than one.
- Contaminated needles or other sharps should be placed, as soon as possible, in a leak-proof, puncture-resistant sharps container.
- Never sort through or compress trash without using a mechanical device or tool.
  The biohazard container should be labeled or color coded as required in Section 7.0.

Handling of Specimens

Specimens of blood or OPIM should be placed in a container that prevents leakage or breakage during handling, processing, storage, transport or shipping. If outside contamination of the primary container occurs, the primary container should be placed in a secondary leak-proof container.

Containers should be labeled or color-coded as required by Section 7.0

Contaminated Equipment

Equipment that may be contaminated with blood or OPIM must be inspected and decontaminated, if possible, prior to servicing or shipping. A readily observable label should indicate where contamination is present or possible. This information should be conveyed to affected employees, service representatives, and the manufacturer to ensure that proper precautions are taken.

Contaminated Laundry

Contaminated laundry should be handled as little as possible. Gloves must be worn when handling the laundry. The contaminated laundry must be bagged or placed in a leak-proof container with a biohazard label at the location where it is used and should not be sorted or rinsed in the location of use.

Contaminated Clothing

Contaminated clothing, including personal attire and PPE, should be removed as soon as possible. Skin in contact with the contaminated clothing should be washed with soap and water. The contaminated PPE should be disposed in a red biohazard bag. Contaminated personal attire should be disposed. If the employee would like to have the clothing cleaned, the clothing should be placed in a bag with a

biohazard label and sent to a laundry facility that accepts this type of clothing. *The employee is reimbursed for clothing that is disposed due to blood or OPIM contamination while performing job tasks.*

Handwashing

Readily accessible handwashing facilities are available when feasible. When this is not feasible, an antiseptic hand cleanser or towelette is provided. Employees must wash their hands and any other affected skin with soap and water, or flush mucous membranes as soon as feasible following contact with blood or OPIM. Use of an antiseptic hand cleaners and then, handwashing with soap and water should take place as soon as feasible even when gloves are used.

Eating, Drinking, and Other Activities

The following activities are prohibited where there is a reasonable likelihood of exposure to blood or OPIM:

- Eating
- Drinking
- Using tobacco products including vaping
- Applying cosmetics or lip balm
- Handling contact lenses

Food and drink must not be kept in refrigerators, freezers, or work areas where blood or OPIM are present.

Housekeeping

Equipment, materials, and working surfaces must be cleaned and decontaminated after contact with blood and OPIM. Disinfectants must be EPA registered and must be effective against HBV and HCV as well as HIV.

Waste Disposal

Contaminated sharps, broken glass, and other sharp objects should be placed in a sharps container. Containers should be easily accessible and located as close as feasible to the area where sharps are used or expected. The sharps container must be closeable, puncture resistant, leak proof, and identified with a biohazard label. Containers should be maintained in an upright position.

Regulated waste must be placed in a red biohazard bag. Regulated waste includes items that are contaminated with blood or OPIM to the extent that the blood or OPIM is:

- Flakeable
- Squeezable
- Drippable
- Pourable

Items such as gloves or bandaids that have a small spot of blood may be disposed in a trash bin with a plastic bag liner.

Regulated waste, including sharps containers, must be disposed according to federal, state, and local regulations. Employees should notify their supervisor when there is a red biohazard bag to dispose and when a sharps container is 3/4 full. Disposal of these bags and containers shall be determined by the individual department/agency.

If regulated waste leaks from a bag or container, the waste should be placed in a second bag or container and the area cleaned and disinfected.

Personal Protective Equipment

Personal protective equipment (PPE) is readily accessible and available at no cost to the employees. The types of personal protective equipment that are available include:

- Nitrile gloves, 4 ml
  Latex gloves should not be used due to allergy concerns. Vinyl gloves should not be used since they do not provide adequate abrasion resistance. Hypoallergenic gloves can be provided for employees who have an allergy to glove components.
- Surgical masks
- Face shields
- Goggles
- Disposable gowns
- Disposable booties
- Pocket masks

The type of PPE that is required is based on the hazards of the job task. The selection of PPE for prevention of bloodborne pathogen exposure may not be adequate for protection against other hazards including hazardous drugs and other chemicals.

The following practices should be observed when wearing PPE:

- Wash hands as soon as feasible after removing gloves and other PPE
- Never wash or decontaminate disposable gloves for reuse.
- Wear face and eye protection when there is a risk of splashing or spraying that cannot be avoided.

If an employee declines to wear the required PPE because the equipment, in his or her judgement, would have posed an increased hazard to the employee or others, the supervisor will investigate and document the circumstances of this occurrence to determine if PPE changes are needed to prevent such events in the future.

HEPATITIS B VACCINATION

The three-injection vaccination series is offered free to employees who are exposed to blood or other potentially infectious materials as part of their job duties. The vaccination is offered:

- After the training described under Section 7.0
- Within 10 days of initial assignment to a job
- At a reasonable time and place
- Under the supervision of licensed physician/licensed health care professional and according to the latest recommendations of the US. Public Health Service.
- If indicated, during post-exposure evaluation and follow-up to employees who have had an exposure incident.

Employees may opt to have their blood tested for antibodies to determine the need for the vaccine, but this pre-screening is not required as a condition of receiving the vaccination.

The hepatitis B vaccination is a noninfectious, yeast-based vaccine given in three injections in the arm. It is prepared from recombinant yeast cultures, rather than human blood or plasma. Thus there is no risk of contamination from other bloodborne pathogens nor is there any chance of developing HBV from the vaccine. The second injection should be given one month after the first and the third injection six months after the initial dose. To ensure immunity, it is important for individuals to receive all three injections. At this point it is unclear how long the immunity lasts, so booster shots may be required at some point in the future.

Employees must sign a declination form if they choose not to be vaccinated, but may later opt to receive the vaccine at no cost to the employee. If booster doses are recommended by the USPHS, these will be made available. The Declination Form is in Appendix B.

Employees who have ongoing contact with patients or blood and are at ongoing risk for percutaneous injuries are to be tested for antibody to Hepatitis B surface antigen, one to two months after the completion of the three-dose vaccination series. Employees who do not respond to the primary

vaccination series must be revaccinated with a second three-dose vaccine series and retested, unless they are HbsAg-positive (infected). Non-responders must be medically evaluated.

All laboratory tests must be conducted by an accredited laboratory.

POST-EXPOSURE EVALUATION AND FOLLOW-UP

When an occupational exposure occurs, the employee should notify their supervisor immediately. The supervisor and the employee should complete an accident report. Once the report is filled out the supervisor should advise the employee to seek appropriate medical attention for post-exposure evaluation. The confidential post-exposure evaluation and follow-up from a licensed health care professional is provided to employees immediately following an exposure incident. This evaluation and follow-up includes:

- Documentation of the incident and route of exposure. Fill out Employee Injury Report
- Circumstances under which the exposure incident occurred. Identification and documentation of the source individual, unless identification is infeasible or prohibited by state or local law.
- After consent, the source individual's blood should be tested for HBV, HCV, and HIV infectivity as soon as possible. The results should be made available to the exposed employee.
- If consent is not obtained, testing of the source individual may be possible for employees in certain jobs if it is determined that a "Significant Exposure" occurred. Reference should be made to the Standard Operating Procedure "Significant Exposure to Bloodborne Pathogens" from the City of Madison Police Department.
- If the source individual is already known to be infected, new testing is not needed.
- 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.
- After consent is obtained, the exposed employee's blood is collected as soon as feasible and tested. If the employee consents to baseline blood collection but does not consent to HIV testing, the sample is preserved for at least 90 days. If the employee elects to have the baseline sample tested, such testing is completed as soon as feasible.
- Post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service
- Counseling
- Evaluation of reported illnesses

Information Provided to Health Care Professional

The following information is provided to the health care professional who conducts the post-exposure evaluation and follow-up:

- A copy of the OSHA bloodborne pathogen standard, 29 CFR 1920.
- A description of employee's duties and responsibilities as they relate to exposure.
- Documentation of the routes of entry and circumstances under which the exposure incident occurred.
- Results of source individual's blood testing, if available.
- All relevant medical records of the employee, including vaccination status.

Healthcare Professional's Written Opinion

The health care professional's written opinion must be obtained and provided to the exposed employee within 15 days of completion of the evaluation. The opinion should be limited to:

- A statement that the exposed employee has been informed of the results of the examination.
- A statement that the exposed employee has been informed about any medical conditions resulting from exposure to blood or OPIM that require further evaluation or treatment.

All other findings are confidential and should not be included in the written report.

HAZARD COMMUNICATION

Labels

Warning labels are required on containers of regulated waste, refrigerators or freezers containing blood or OPIM, and other containers used to store or transport blood or OPIM. Red bags or red containers may be substituted for labels.

These labels should be fluorescent orange or orange-red with lettering or symbols in a contrasting color. The Biohazard symbol may also be used:

These labels should be an integral part of the container or affixed as close as feasible to the container by string, wire, adhesive, or other method to prevent their loss or unintentional removal.

Labels for contaminated equipment must follow the same labeling requirements. The labels should also state which portions of the equipment remain contaminated.

Employee Training

Training is provided to employees who are occupationally exposed to bloodborne pathogens at no cost to the employee and during working hours. Training is provided initially upon assignment and annually. Employees who have received appropriate training within the past year need only receive additional training in items not previously covered.

Training includes:

- An accessible copy of the regulatory text of the standard and explanation of its contents.
- Information on bloodborne diseases and their transmission.
- Exposure Control Plan and how to obtain a copy.
- Methods for recognizing tasks or activities that may involve exposure to blood or OPIM
- What constitutes an exposure incident
- Engineering controls and work practices that prevent or reduce exposure
- Type, proper use, proper removal and disposal of PPE
- An explanation of the basis for PPE selection
- Information on Hepatitis B vaccine including efficacy, safety, method of administration, benefits of being vaccinated and that the vaccine is free.
- Response to emergencies involving blood, how to handle exposure incidents and the method of reporting the incident.
- The post-exposure evaluation and follow-up program.
- An explanation of signs/labels/color-coding.
- An opportunity for questions and answers with the person conducting the training.

The trainer must be knowledgeable in the subject matter.

Additional training is provided when changes in tasks or procedures affect the employee's occupational exposure.

RECORDKEEPING

Medical Records

Medical records for each employee are maintained in accordance with 29 CFR 1910.1020, "Access to Employee Exposure and Medical Records". The exposed employee's supervisor is responsible for submitting required documentation

Records include:

- Name and social security number of the employee.
- Copy of employee's HBV vaccination status, including dates of the vaccinations, and medical records relative to employee's ability to receive vaccinations.
- Copy of results of examinations, medical testing, and follow-up procedures.
- Copy of the health care professional's written opinion.
- Copy of the information provided to the health care professional.

Medical records are kept confidential and not disclosed or reported without the employee's written consent. The employee's medical record must be made available to the employee for examination or copying.

Medical records are to be maintained for the duration of employment plus 30 years.

Training Records

Training records shall include the following information:

- Dates of the training sessions;
- Contents or a summary of the training sessions;
- Names and qualifications of persons conducting the training
- Names and job titles of persons attending the training sessions

Training records are maintained for 3 years form the date on which the training occurred.

Sharps Injury Log

A Sharps Injury Log is maintained for recording percutaneous injuries from contaminated sharps. The information on the log is recorded and maintained in a manner that protects the confidentiality of the injured employee.

The log contains:

- Type and brand of device involved in the incident
- Work area where exposure occurred
- Explanation of how incident occurred

The Log is maintained through the City of Madison's Worker's Compensation Third Party Administrator for at least five years.

OSHA 300

OSHA requires **all** work-related injuries from needlesticks and cuts, lacerations, punctures and scratches from sharp objects contaminated with another person's blood or OPIM to be recorded on the OSHA 300 as an injury. To protect the employee's privacy, the employees name may not be entered on the OSHA 300. Employers must keep a separate confidential list of the case numbers and employee names so they can update the cases or provide them if asked by the government. If the employee develops a bloodborne disease, the entry must be updated and recorded as an illness.

APPENDICES

A. Exposure Determination by Department/Agency
B. Hepatitis B Vaccine Declination Form

APPENDIX A

EXPOSURE DETERMINATION BY DEPARTMENT/AGENCY

Department/Agency	Job Task with Potential for Exposure to Blood or OPIM
Ex: Madison Fire Department	*Ex: Firefighters*

NOTE: This list should be updated as job titles or tasks change (Reference section 3.0).

APPENDIX B

HEPATITIS B VACCINE DECLINATION

I understand that due to my risk of occupational exposure to blood or other potentially infectious materials I may become infected with hepatitis B virus. 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 the 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 the risk of occupational exposure to blood or other potentially infectious materials and I want to receive the hepatitis B vaccine, I understand that I can receive the vaccination series at no charge to me.

Employee Name (Please Print):_____

Employee Signature:_____

Date:_____

CHEMICAL HYGIENE POLICY

PURPOSE

The City of Madison has developed the following program to protect the safety and health of employees who are involved with the laboratory use of hazardous chemicals. This policy complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code as created by the Wisconsin Department of Safety and Professional Services and 29 CFR 1910.1450 (Occupational Exposure To Hazardous Chemicals In Laboratories) created by the U.S. Occupational Safety and Health Administration.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy.

Department Heads

- Implement this policy and develop a specific chemical hygiene plan for their operation(s).

Supervisors

- Ensure policy is followed by all employees.

Employees

- Follow policy requirements .

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

- Laboratory Use of Hazardous Chemicals - handling or use of such chemicals in which all of the following conditions are met:
    - Chemical manipulations are carried out on a “laboratory scale;”
    - Multiple chemical procedures or chemicals are used;
    - The procedures involved are not part of a production process, nor in any way simulate a production process; and
    - “Protective laboratory practices and equipment” are available and in common use to minimize the potential for employee exposure to hazardous chemicals.

- The following activities are not considered to be laboratory use of hazardous chemicals, even if such use occurs in a laboratory and as such, the requirements of this policy do not apply:
    - Laboratory uses of hazardous chemicals which provide no potential for employee exposure.
    - Procedures using chemically-impregnated test media such as Dip-and-Read tests where a reagent strip is dipped into the specimen to be tested and the results are interpreted by comparing the color reaction to a color chart supplied by the manufacturer of the test strip.
    - Commercially prepared kits such as those used in performing pregnancy tests in which all of the reagents needed to conduct the test are contained in the kit.

DEPARTMENTAL REQUIREMENTS

This policy represents minimum chemical hygiene planning requirements for the laboratory use of hazardous chemicals. Departments having laboratory type operations that fall under the definition of "laboratory use of hazardous chemicals" are required to develop and implement their own specific chemical hygiene plan that must include all of the following requirements contained in this policy.

TRAINING

Department Heads are required to ensure that affected employees are provided with information and training to ensure that they are informed of the hazards of chemicals present in their work area. Such information shall be provided at the time of an employee's initial assignment to a work area where hazardous chemicals are present and prior to assignments involving new exposure situations. The frequency of refresher information and training shall be determined by the Department Head.

Employees will be instructed in the following:

- The contents of the OSHA standard and its appendices which must be made available to employees.
- The location and availability of the Department's Chemical Hygiene Plan.
- The permissible exposure limits for OSHA regulated substances or recommended exposure limits for other hazardous chemicals where there is no applicable OSHA standard.
- Signs and symptoms associated with exposures to hazardous chemicals used in the laboratory.
- The 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, Safety Data Sheets received from the chemical supplier.

Affected employees shall also receive training in the following subject areas:

- Methods and observations that may be used to detect the presence or release of a hazardous chemical (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.).
- The physical and health hazards of chemicals in the work area.

- The measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used.
- The applicable details of the Department's written Chemical Hygiene Plan.

DOCUMENTATION REQUIREMENTS

Department Heads shall establish and maintain for each employee an accurate record of any measurements taken to monitor employee exposures and any medical consultation and examinations including tests or written opinions required by this standard.

Records of all training and instruction provided under this policy shall be maintained within the Department.

EMPLOYEE EXPOSURES

For laboratory uses of OSHA regulated substances, the Department Head shall ensure that laboratory employees' exposures to such substances do not exceed the permissible exposure limits specified in 29 CFR part 1910, subpart Z.

Department Heads shall ensure measurement of the employee's exposure to any substance regulated by a standard which requires monitoring if there is reason to believe that exposure levels for that substance routinely exceed the action level (or in the absence of an action level, the Permissible Exposure Limit). If the monitoring described above shows and employee's exposure level to be over the action level (or in the absence of an action level, the PEL), the Department Head shall immediately comply with the exposure monitoring provisions of the relevant standard.

Monitoring may be terminated in accordance with the relevant standard or if allowed, when exposure monitoring data shows the employee is not being overexposed to any hazardous chemical above safe limits as prescribed by OSHA and ACGIH. Department Heads shall ensure that within 15 working days after the receipt of any monitoring results, the employee is notified of these results in writing either individually or by posting results in an appropriate location that is accessible to employees.

CHEMICAL HYGIENE PLAN

- A written Chemical Hygiene Plan (CHP) shall be developed by each affected Department. Each plan shall be capable of protecting employees from health hazards associated with hazardous chemicals in that laboratory and be capable of keeping exposures below any applicable limits.
- The Chemical Hygiene Plan shall be readily available to employees and employee representatives.

- The Chemical Hygiene Plan shall include each of the following elements and shall indicate specific measures that will be taken to ensure laboratory employee protection:
    - Standard operating procedures relevant to safety and health considerations to be followed when laboratory work involves the use of hazardous chemicals.
    - Criteria that will be used to determine and implement control measures to reduce employee exposure to hazardous chemicals including engineering controls, the use of personal protective equipment and hygiene practices.
    - Particular attention shall be given to the selection of control measures for chemicals that are known to be extremely hazardous.
    - A requirement that fume hoods and other protective equipment are functioning properly and specific measures that shall be taken to ensure proper and adequate performance of such equipment.
    - Provisions for employee information and training.
    - The circumstances under which a particular laboratory operation, procedure or activity shall require prior approval before implementation.
    - Provisions for medical consultation and medical examinations for exposures.
    - Designation of personnel responsible for implementation of the Chemical Hygiene Plan including the assignment of a Chemical Hygiene Officer, and, if appropriate, establishment of a Chemical Hygiene Committee.
- Provisions for additional employee protection for work with particularly hazardous substances are to be contained in the written Chemical Hygiene Plan. These include "select carcinogens," reproductive toxins and substances which have a high degree of acute toxicity. Specific consideration shall be given to the following provisions which shall be included 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.
- The Department Head shall review and evaluate the effectiveness of the Chemical Hygiene Plan at least annually and update it as necessary.

MEDICAL CONSULTATION AND MEDICAL EXAMINATIONS

- Employees who work with hazardous chemicals shall receive an opportunity to receive medical attention, including any follow-up examinations which the examining physician determines to be necessary, under 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 shall be provided an opportunity to receive an appropriate medical examination.
    - Where exposure monitoring reveals an exposure level routinely above the action level (or in the absence of an action level, the 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 standard.
    - 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 exposure, the affected employee shall be provided an opportunity for a medical consultation. Such consultation shall be for the purpose of determining the need for a medical examination.
- All medical examinations and consultations shall be performed by or under the direct supervision of a licensed physician and shall be provided without cost to the employee, without loss of pay and at a reasonable time and place.
- The following information shall be provided to the physician:
    - The identity of the hazardous chemical(s) to which the employee may have been exposed.
    - A description of the conditions under which the exposure occurred including quantitative exposure data, if available.
    - A description of the signs and symptoms of exposure that the employee is experiencing, if any.
- Department Heads shall obtain a written opinion from the examining physician for any examination or consultation provided. The written opinion must include the following:
    - Any recommendation for further medical follow-up.
    - The results of the medical examination and any associated tests.
    - Any medical condition which 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 workplace.
    - 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 reveal specific findings of diagnoses unrelated to occupational exposure.

HAZARD IDENTIFICATION

With respect to labels and safety data sheets, employees shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced.

Department Heads shall maintain any safety data sheets that are received with incoming shipments of hazardous chemicals, and ensure that they are readily accessible to laboratory employees.

RESPIRATORS AND PERSONAL PROTECTIVE EQUIPMENT

Where the use of respirators and personal protective equipment is necessary to maintain exposure below permissible exposure limits, employees will be provided with the proper respiratory equipment in accordance with the City's Respirator and Personal Protective Equipment Policy.

COMPRESSED GAS POLICY

PURPOSE

This policy has been developed to make City employees aware of the safe handling and storage of compressed gas cylinders. This policy applies to all compressed gas use and complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code as created by the Wisconsin Department of Safety and Professional Services and 29 CFR Part 1910.101 (Compressed Gas General Requirements) and 1910.253 (Oxy Fuel Gas Welding and Cutting) as created by the U.S. Occupational Safety and Health Administration.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy.

Department Heads

- Implement this policy.

Supervisors

- Ensure policy is followed by employees.

Employees

- Follow requirements contained in this policy.

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

No Definitions.

DEPARTMENTAL REQUIREMENTS

This policy represents minimum compressed gas handling and storage requirements. Department Heads may develop more specific procedures to be followed in their respective departments.

COMPRESSED GAS POLICY

TRAINING

Employees whose job duties require the use of compressed gases will be instructed in the requirements of this policy at the time of their initial assignment and whenever this policy is revised.

DOCUMENTATION REQUIREMENTS

Sign-in sheets of the employees who received training shall be kept on record.

Training records will be stored at the individual departments.

GENERAL REQUIREMENTS

- All compressed gas cylinders must be stored in an upright position and secured around the body of the cylinder to prevent falling. Smoking is not allowed around compressed gas cylinders.
- Use of hydrogen, manifold and piping systems and other compressed gases not covered in this policy shall comply with the requirements of the Compressed Gas Association.
- Under no condition shall acetylene be generated, piped (except in approved cylinder manifolds) or utilized at a pressure in excess of 15 psig (103 kPa gauge pressure) or 30 psia (206 kPa absolute).
- Only approved apparatus such as torches, regulators or pressure-reducing valves, acetylene generators, and manifolds shall be used.
- Compressed gas cylinders shall be legibly marked, for the purpose of identifying the gas content, with either the chemical or the trade name of the gas. Such marking shall be by means of stenciling, stamping, or labeling, and shall not be readily removable. Whenever practical, the marking shall be located on the shoulder of the cylinder.
- All cylinders with a water weight capacity of over 30 pounds (13.6 kg) shall be equipped with means of connecting a valve protection cap or with a collar or recess to protect the valve.
- Cylinders shall be kept away from radiators and other sources of heat.
- Inside of buildings, cylinders shall be stored in a well-protected, well-ventilated, dry location, at least 20 (6.1 m) feet from combustible materials. Cylinders should be stored in definitely assigned places away from elevators, stairs, or gangways. Assigned storage spaces shall be located where cylinders will not be knocked over or damaged by passing or falling objects, or subject to tampering by unauthorized persons. Cylinders shall not be kept in unventilated enclosures such as lockers and cupboards.
- Empty cylinders shall have their valves closed.
- Valve protection caps, where cylinder is designed to accept a cap, must always be in place, hand-tight, except when cylinders are in use or connected for use.
- Inside a building, cylinders, except those in actual use or attached ready for use, shall be limited to a total gas capacity of 2,000 cubic feet (56 m(3)) or 300 pounds (135.9 kg) of liquefied petroleum gas.
- Acetylene cylinders shall be stored valve end up.

COMPRESSED GAS POLICY

OXYGEN STORAGE

- Oxygen cylinders shall not be stored near highly combustible material, especially oil and grease; or near reserve stocks of carbide and acetylene or other fuel-gas cylinders, or near any other substance likely to cause or accelerate fire; or in an acetylene generator compartment.
- Oxygen cylinders stored in outside generator houses shall be separated from the generator or carbide storage rooms by a noncombustible partition having a fire-resistance rating of at least 1 hour. This partition shall be without openings and shall be gastight.
- Oxygen cylinders in storage shall be separated from fuel-gas cylinders or combustible materials (especially oil or grease), a minimum distance of 20 feet (6.1 m) or by a noncombustible barrier at least 5 feet (1.5 m) high having a fire-resistance rating of at least one-half hour.

OPERATING PROCEDURES

- Cylinders, cylinder valves, couplings, regulators, hose, and apparatus shall be kept free from oily or greasy substances. Oxygen cylinders or apparatus shall not 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 or derrick, a cradle, boat, or suitable platform shall be used. Slings or electric magnets shall not be used for this purpose. Valve-protection caps, where cylinder is designed to accept a cap, shall always be in place.
- Cylinders shall not be dropped or struck or permitted to strike each other violently.
- Valve-protection caps shall not be used for lifting cylinders from one vertical position to another. Bars shall not be used under valves or valve-protection caps to pry cylinders loose when frozen to the ground or otherwise fixed; the use of warm (not boiling) water is recommended. Valve-protection caps are designed to protect cylinder valves from damage.
- Unless cylinders are secured on a special truck, regulators shall be removed and valve-protection caps, when provided for, shall be put in place before cylinders are moved.
- Cylinders not having fixed hand wheels shall have keys, handles, or nonadjustable wrenches on valve stems while these cylinders are in service. In multiple cylinder installations, only one key or handle is required for each manifold.
- Cylinder valves shall be closed before moving cylinders.
- Cylinder valves shall be closed when work is finished.
- Valves of empty cylinders shall be closed.
- Cylinders shall be kept far enough away from the actual welding or cutting operation so that sparks, hot slag, or flame will not reach them, or fire-resistant shields shall be provided.
- Cylinders shall not be placed where they might become part of an electric circuit. Contacts with third rails, trolley wires, etc., shall be avoided. Cylinders shall be kept away from radiators, piping systems, layout tables, etc., that may be used for grounding electric circuits such as for arc welding machines. Any practice such as the tapping of an electrode against a cylinder to strike an arc shall be prohibited.

COMPRESSED GAS POLICY

- Cylinders shall never be used as rollers or supports, whether full or empty.
- The numbers and markings stamped into cylinders shall not be tampered with.
- No person, other than the gas supplier, shall attempt to mix gases in a cylinder. No one, except the owner of the cylinder or person authorized by him, shall refill a cylinder.
- No one shall tamper with safety devices in cylinders or valves.
- Cylinders shall not be dropped or otherwise roughly handled.
- Unless connected to a manifold, oxygen from a cylinder shall not be used without first attaching an oxygen regulator to the cylinder valve. Before connecting the regulator to the cylinder valve, the valve shall be opened slightly for an instant and then closed. Always stand to one side of the outlet when opening the cylinder valve.
- A hammer or wrench shall not be used to open cylinder valves. If valves cannot be opened by hand, the supplier shall be notified.
- Cylinder valves shall not be tampered with nor should any attempt be made to repair them. If trouble is experienced, the supplier should be sent a report promptly indicating the character of the trouble and the cylinder's serial number. Supplier’s instructions as to its disposition shall be followed.
- Complete removal of the stem from a diaphragm-type cylinder valve shall be avoided.
- Fuel-gas cylinders shall be placed with valve end up whenever they are in use.
- Liquefied gases shall be stored and shipped with the valve end up.
- Cylinders shall be handled carefully. Rough handling, knocks, or falls are liable to damage the cylinder, valve or safety devices and cause leakage which may result in an explosion or result in the cylinder becoming a powerful projectile that is fueled by the escaping gas from a damaged valve that may have been broken off.
- Before connecting a regulator to a cylinder valve, the valve shall be opened slightly and closed immediately. The valve shall be opened 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.
- Before a regulator is removed from a cylinder valve, the cylinder valve shall be closed and the gas released from the regulator.
- Nothing shall be placed on top of an acetylene cylinder when in use which may damage the safety device or interfere with the quick closing of the valve.
- If cylinders are found to have leaky valves or fittings which cannot be stopped by closing of the valve, the cylinders shall be taken outdoors away from sources of ignition and slowly emptied.
- A warning should be placed near cylinders having leaking fuse plugs or other leaking safety devices not to approach them with a lighted cigarette or other source of ignition. Such cylinders should be plainly tagged; the supplier should be promptly notified and his instructions followed as to their return.
- Safety devices shall not be tampered with.

COMPRESSED GAS POLICY

- Fuel-gas shall never be used from cylinders through torches or other devices equipped with shutoff valves without reducing the pressure through a suitable regulator attached to the cylinder valve or manifold.
- The cylinder valve shall always be opened slowly.
- An acetylene cylinder valve shall not be opened more than one and one-half turns of the spindle, and preferably no more than three-fourths of a turn.
- Where a special wrench is required it shall be left in position on the stem of the valve while the cylinder is in use so that the fuel-gas flow can be quickly turned off in case of emergency. In the case of manifolded or coupled cylinders, at least one such wrench shall always be available for immediate use.

CONFINED SPACE POLICY

PURPOSE

This program was developed to protect employees who must work in confined spaces that contain serious safety and/or health related hazards. Only authorized employees may enter a confined space. This policy complies with Chapter 32 (Public Employee Safety and Health) of the Wisconsin Administrative code as implemented by the Wisconsin Department of Commerce and 29 CFR 1910.146 (Confined Spaces) implemented by the U.S. Occupational Safety and Health Administration.

City of Madison employees will not enter a confined space where the atmosphere cannot be brought within the safe limits described under 1910.146.

RESPONSIBILITIES

Safety Coordinator

- Manage and support this policy
- Consult with affected employees and their authorized representatives on the development and implementation of all aspects of the permit space program
- Performs annual review of programs effectiveness

Department Heads

- Implement this policy
- Identify all confined spaces in their department that employees may enter and ensure they are labeled and/or communicated to employees

Supervisors

- Ensure policy is followed by all employees
- Acts as Entry Supervisor
- Conducts pre-entry briefings
- Authorizes Entrants and Attendants
- Authorizes entry permits
- Maintains entry safety equipment

Employees

- See specific requirements for Attendant and Entrant responsibilities

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

CONFINED SPACE POLICY

DEFINITIONS

- Attendant - means an individual stationed outside one or more permit spaces who monitors the authorized entrants and who performs all attendant's duties assigned in the employer's permit space program.

- Confined Space - means a space that:

    1. Is large enough and so configured that an employee can bodily enter and perform assigned work; and
    2. Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.); and
    3. Is not designed for continuous employee occupancy.

- Entry Permit - means the written or printed document that is provided by the employer to allow and control entry into a permit space and that contains the information specified in this policy.

- Entry Supervisor - means the person (such as the employer, foreman, or crew chief) responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry and overseeing entry operations, and for terminating entry as required by this section.

- Immediately Dangerous to Life or Health (IDLH) - means any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit space.

- Permit Required Confined Space - means a confined space that has one or more of the following characteristics:

    1. Contains or has a potential to contain a hazardous atmosphere;
    2. Contains a material that has the potential for engulfing an entrant;
    3. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or
    4. Contains any other recognized serious safety or health hazard.

DEPARTMENTAL REQUIREMENTS

This policy represents minimum confined space entry requirements. Departments having employees who work in confined spaces will develop specific entry procedures for each type of confined space that their employees may enter, including sewers.

TRAINING

Training will be provided so that all employees who are authorized to enter and work in confined spaces acquire the understanding, knowledge, and skills necessary for the safe performance of their duties assigned under this policy. Training will be provided to each affected employee at the following intervals:

- Before the employee is first assigned duties under this section;
- Before there is a change in assigned duties;
- Whenever there is a change in permit space operations that presents a hazard about which an employee has not previously been trained;
- Whenever the Supervisor has reason to believe either that there are deviations from the permit space entry procedures or that there are inadequacies in the employee's knowledge or use of these procedures.

All employees will be informed by the Supervisor at the time of hire that they are not allowed to enter a confined space for any reason unless they are specifically authorized and have received the training described above.

DOCUMENTATION REQUIREMENTS

Copies of all confined space entry permits are to be maintained on file for a period of one (1) year by the Supervisor of each department that performs confined space entries.

Training certifications are to contain each employee's name, the signatures or initials of the trainers, and the dates of training. The certification must be available for inspection by employees and their authorized representatives.

Supervisors will keep on file records of calibration for all atmospheric test meters showing when the unit(s) was last calibrated.

GENERAL REQUIREMENTS

- Each Department Head shall evaluate the work space and equipment used within their department to identify permit required confined spaces.
- The department will be responsible for marking all building type permit required confined spaces. All other departments are responsible for marking their respective permit required confined spaces. Markings shall read: DANGER -- PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER or similar verbiage. Markings are not required if equally effective means of identifying permit required confined spaces are made available to employees. For example, marking would

not be required for sewer manholes if the Department institutes a program that ensures all employees are made aware that sewers are considered to be permit required confined spaces.

- Department Heads shall specify which employees or which job classifications are authorized to enter confined spaces.
- If an injured Entrant is exposed to a substance for which a Safety Data Sheet (SDS) or other similar written information is required to be kept at the worksite, that SDS or written information will be made available to the medical facility treating the exposed Entrant.
- All designated Entrants and Attendants will be trained in first aid, CPR and be enrolled in the City's Bloodborne Pathogens program.
- A confined space is considered to be entered if any part of the body breaks the plane to the opening of the confined space.
- Alternate entry procedures for spaces only containing an actual or potentially hazardous atmosphere are not allowed. All entries for permit required confined spaces must follow the permit required entry procedures contained in this policy.
- Safety Coordinator will review entry operations whenever the City has reason to believe that the measures taken under the permit space program may not protect employees and revise the program to correct deficiencies found to exist before subsequent entries are authorized.
- NOTE: Examples of circumstances requiring the review of the permit space program are:
  - any unauthorized entry of a permit space,
  - the detection of a permit space hazard not covered by the permit
  - the detection of a condition prohibited by the permit
  - the occurrence of an injury or near-miss during entry,
  - a change in the use or configuration of a permit space and,
  - employee complaints about the effectiveness of the program.
- Risk Management/Safety Coordinator will also perform a standard annual review of the effectiveness of the confined space program by reviewing all entry permits that were issued in the prior twelve (12) month period.
- No eating, drinking or smoking are allowed in any confined space.
- Welding, cutting or brazing shall be performed in accordance with the City's Welding and Cutting Policy.
- All confined space test meters will be calibrated as per the manufacturer's recommendations and records shall be maintained showing the date the unit was last calibrated.

ENTRANT DUTIES

Entrants shall be responsible for:

- Knowing the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- Properly using safety and monitoring equipment;

- Communicating with the Attendant as necessary to enable the Attendant to monitor Entrant status and to enable the Attendant to alert Entrants of the need to evacuate the space if necessary.

Additionally, the Entrant is responsible for alerting the Attendant whenever the Entrant recognizes any warning sign or symptom of exposure to a dangerous situation, or the Entrant detects a prohibited condition. The Entrant will exit the permit space as quickly as possible whenever:

- An order to evacuate is given by the Attendant or the entry Supervisor,
- The Entrant recognizes any warning sign or symptom of exposure to a dangerous situation,
- The Entrant detects a prohibited condition, or
- An evacuation alarm is activated.

ATTENDANT DUTIES

Attendants may not enter a confined space for any reason or perform any duties that might interfere with the Attendant's primary duty to monitor and protect the authorized Entrants. Attendants may perform non-entry type rescues as described in this policy. Attendants are responsible for:

- Knowing the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- Being aware of possible behavioral effects of hazard exposure in authorized Entrants
- Continuously maintaining an accurate count of authorized Entrants in the permit space and ensuring that the means used to identify authorized Entrants accurately identifies who is in the permit space;
- Remaining outside the permit space during entry operations until relieved by another Attendant; communicating with authorized Entrants as necessary to monitor Entrant status and to alert Entrants of the need to evacuate the space if necessary;
- Monitoring activities inside and outside the space to determine if it is safe for Entrants to remain in the space and ordering the authorized Entrants to evacuate the permit space immediately under any of the following conditions:
  - If the Attendant detects a prohibited condition;
  - If the Attendant detects the behavioral effects of hazard exposure in an authorized Entrant;
  - If the Attendant detects a situation outside the space that could endanger the authorized Entrants; or
  - If the Attendant cannot effectively and safely perform all of his or her duties.
- Summoning rescue and other emergency services as soon as the Attendant determines that authorized Entrants may need assistance to escape from permit space hazards;
- Taking the following actions when unauthorized persons approach or enter a permit space while entry is underway:
  - Warning the unauthorized persons that they must stay away from the permit space

- Advising the unauthorized persons that they must exit immediately if they have entered the permit space; and
- Informing the authorized Entrants and the entry Supervisor if unauthorized persons have entered the permit space.

ENTRY SUPERVISORS

Supervisors are designated as Entry Supervisors. Entry Supervisors must:

- Know the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of the exposure;
- Verify, by checking that the appropriate entries have been made on the permit, that all tests specified by the permit have been conducted and that all procedures and equipment specified by the permit are in place before endorsing the permit and allowing entry to begin;
- Terminate the entry and cancels the permit if prohibited conditions develop;
- Verify that rescue services are available and that the means for summoning them are operable;
- Remove unauthorized individuals who enter or who attempt to enter the permit space during entry operations; and
- Determine, whenever responsibility for a permit space entry operation is transferred and at intervals dictated by the hazards and operations performed within the space, that entry operations remain consistent with terms of the entry permit and that acceptable entry conditions are maintained.

PERMIT REQUIRED CONFINED SPACE ENTRY PROCEDURES

Entry Supervisors will provide at least one Attendant outside the permit space into which entry is authorized for the duration of entry operations.

Attendants are only allowed to oversee the Entrant(s) to a single confined space and may not monitor more than one space at a time.

Any conditions making it unsafe to remove an entrance cover shall be eliminated before the cover is removed. When entrance covers are removed, the opening shall be immediately guarded by a railing, temporary cover, or other temporary barrier that will prevent an accidental fall through the opening and that will protect each employee working in the space from foreign objects entering the space.

Before an employee enters the space, the internal atmosphere shall be tested, with a calibrated direct-reading instrument, for oxygen content, for flammable gases and vapors, and for potential toxic air contaminants, in that order.

Testing can be performed by the Entrant, the Attendant or the Entry Supervisor provided that they have been trained to use the test meter and interpret the results. The space will also be evaluated for physical and other hazards.

Entry Supervisors will reevaluate the permit space in the presence of any authorized Entrant or that employee's authorized representative who requests that the City conduct such reevaluation because the Entrant or representative has reason to believe that the evaluation of that space may not have been adequate. Additionally the entry Supervisor will immediately provide each authorized Entrant or that employee's authorized representative with the results of any testing conducted.

Testing of the space shall be performed without entering the space. Entrants or their authorized representative will be provided an opportunity to observe the pre-entry testing. There may be no hazardous atmosphere within the space whenever any employee is inside the space.

Hazardous atmosphere is defined as a concentration in excess of the OSHA permissible exposure limit, ACGIH threshold limit value or a concentration that is known to be immediately dangerous to life and health. Continuous forced air ventilation shall be used, as follows:

- An employee may not enter the space until the forced air ventilation has eliminated any hazardous atmosphere;
- The forced air ventilation shall be so directed as to ventilate the immediate areas where an employee is or will be present within the space and shall continue until all employees have left the space;
- The air supply for the forced air ventilation shall be from a clean source and may not increase the hazards in the space.
- The atmosphere within the space shall be periodically tested as necessary to ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere. Any employee who enters the space, or that employee's authorized representative, shall be provided with an opportunity to observe the periodic testing required by this paragraph.

If a hazardous atmosphere is detected during entry:

- Each employee shall leave the space immediately;
- The space shall be evaluated to determine how the hazardous atmosphere developed; and
- Measures shall be implemented to protect employees from the hazardous atmosphere before any subsequent entry takes place.

The Entry Supervisor will verify that the space is safe for entry and that the pre-entry measures required above have been taken, through a written permit system. The permit must be signed before entry is allowed. Electrical systems or components that present a possible safety hazard within a confined space will be locked out according to the City's lockout procedure before entering the space.

CONFINED SPACE POLICY

PERMIT SYSTEM

Entry Supervisors must sign a permit authorizing entry into a permit required confined space. A permit form is contained in the appendix.

Before entry begins, the entry Supervisor identified on the permit shall sign the entry permit to authorize entry. The completed permit shall be made available at the time of entry to all authorized Entrants or their authorized representatives, by posting it at the entry portal or by any other equally effective means, so that the Entrants can confirm that pre-entry preparations have been completed.

The duration of the permit may not exceed the time required to complete the assigned task or job identified on the permit. The entry Supervisor will terminate entry and cancel the entry permit when:

- The entry operations covered by the entry permit have been completed; or
- A condition that is not allowed under the entry permit arises in or near the permit space

The Entry Supervisor will retain each canceled entry permit for at least one (1) year to facilitate the review of the permit-required confined space program. Any problems encountered during an entry operation shall be noted on the pertinent permit so that appropriate revisions to the permit space program can be made.

RETRIEVAL EQUIPMENT AND NON-ENTRY RESCUES

Non-entry rescues, retrieval systems or methods shall be used whenever an authorized Entrant enters a permit space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the Entrant. Retrieval systems must meet the following requirements.

Each authorized Entrant is required to use a chest or full body harness, with a retrieval line attached at the center of the Entrant's back near shoulder level, above the Entrant's head, or at another point which the Supervisor can establish presents a profile small enough for the successful removal of the Entrant. Wristlets may be used in lieu of the chest or full body harness if the Supervisor can demonstrate that the use of a chest or full body harness is infeasible or creates a greater hazard and that the use of wristlets is the safest and most effective alternative.

The other end of the retrieval line must be attached to a mechanical device or fixed point outside the permit space in such a manner that rescue can begin as soon as the rescuer becomes aware that rescue is necessary. A mechanical device must be available to retrieve personnel from vertical type permit spaces more than 5 feet deep.

Attendants may perform non-entry rescues provided that the entry Supervisor is alerted immediately and it is safe to retrieve the Entrant from the space. Attendants are not to enter the confined space for any type of rescue attempt. Attendants will alert all unauthorized personnel that may be near the space

to not attempt an entry rescue as it could be dangerous to life and health and only qualified rescuers can enter such spaces.

RESCUE AND EMERGENCY SERVICES

Department Heads will make arrangements with local emergency responders for confined space rescues by evaluating the rescuer's ability to respond to a rescue summons in a timely manner, considering the hazard(s) identified. Additionally, they will evaluate a prospective rescue service's ability, in terms of proficiency with rescue-related tasks and equipment, to function appropriately while rescuing Entrants from the particular permit space or types of permit spaces identified.

Department Heads will select a rescue team or service from those evaluated that:

- Has the capability to reach the victim(s) within a time frame that is appropriate for the permit space hazard(s) identified;
- Is equipped for and proficient in performing the needed rescue services.

Department Heads will also inform each rescue team or service of the hazards they may confront when called on to perform rescue at the site; and provide the rescue team or service selected with access to all permit spaces from which rescue may be necessary so that the rescue service can develop appropriate rescue plans and practice rescue operations.

Preference will be given to the local fire department who meets the above qualifications and their use shall be documented in writing. In the event that no fire department is equipped to meet the above requirements, the Department Head shall consult with the Risk Manager to locate a suitable private rescue service.

CONTRACTORS

If a contractor is used to enter a confined space, the City Supervisor in charge of the project will:

- Inform the contractor that the workplace contains permit spaces and that permit space entry is allowed only through compliance with a permit space program meeting the requirements of this section;
- Notify the contractor of the elements, including the hazards identified and the City’s experience with the space, that make the space in question a permit space
- Notify the contractor of any precautions or procedures that the City or Department has implemented for the protection of employees in or near permit spaces where contractor personnel will be working;
- Coordinate entry operations with the contractor, when both City personnel and contractor personnel will be working in or near permit spaces; and Debrief the contractor at the conclusion

of the entry operations regarding the permit space program followed and regarding any hazards confronted or created in permit spaces during entry operations.

OPENINGS AND OBSTRUCTIONS

Openings into the confined space shall be kept free from obstructions at all times, such as, but not limited to, hand tools and debris. Openings shall be guarded and barricaded when opened to prevent unauthorized employees or personnel from entering the confined space and to prevent objects or debris from falling into the confined space. All guarding shall be accomplished by the use of any of the following barrier methods only and shall be installed such that unauthorized individuals cannot accidentally walk, fall in, or otherwise enter the space without having to physically remove, defeat and/or bypass the barrier that is used:

- Yellow caution tape wrapped around the opening.
- Vertical poles with associated yellow chain linked fencing placed around the opening.
- Orange or yellow traffic cones placed around the opening.

Types of barrier guarding that are not allowed (i.e., use of chairs, tables, trashcans, etc.).

VEHICLE TRAFFIC AREA ENTRY REQUIREMENTS

Confined space entries into confined spaces located in vehicle traffic areas need to be identified and additionally protected by ensuring all of the following actions are performed (These are in addition to those requirements under “Openings and Obstructions” discussed above):

- A vehicle must be parked near the manhole in such a way as to protect the space opening and in such a manner as to not totally obstruct the flow of traffic;
- Vehicle’s four way flashers and yellow strobe lights shall be on at all times;
- Traffic cones shall be placed near the entry to channel traffic;
- Barricades and signs shall be used when appropriate in high traffic areas;
- Vehicles exhaust fumes shall be directed away from the entry point;
- All employees above ground shall wear appropriate high visibility safety colored vests and Entrant’s safety rope shall be attached to a tripod winch. Attendant shall use radio communication to communicate with Entrant and off-site supervisory personnel. Flagmen directing traffic shall not serve as an Attendant.
- Entrants and Attendants who work on highways, roads, streets or their easements shall wear traffic safety vests or use clothing or equipment that provides similar protection.

CONFINED SPACE POLICY

SEWER ENTRIES

All sewer entries will be performed in accordance with the requirements of this and all other applicable City Safety Policies. Department Heads will develop specific sewer entry work procedures to supplement the requirements of this policy. Such practices will address at a minimum:

- Unique hazards associated with the sewer to be entered.
- Type of sewer system to be entered.
- Surge flow and flooding.
- Introduction of contaminants.
- Special Equipment.

AIR QUALITY

A confined space may be entered providing the space has:

- An oxygen (O2) content between 19.5% and 23.5%.
- A hydrogen sulfide (H2S) content of less than 10 parts per million.
- A carbon monoxide (CO) content of less than 35 parts per million.
- A combustible gas content less than 10% of the lower explosive limit (LEL).

Entry into the confined space shall be made only after the tests show adequate air quality.

APPENDICES

A. Confined Space Entry Permit

APPENDIX A

CONFINED SPACE ENTRY PERMIT

THIS PERMIT MUST BE POSTED AT THE JOBSITE BEFORE AND DURING ENTRY. PERMIT IS GOOD ONLY FOR DATE INDICATED.

Location and Description of Space: _____

Purpose of Entry: _____

Permit Start Date & Time: _____ Permit End Date & Time: _____

Entry Supervisor: _____ Authorized Attendant(s): _____

Authorized Entrants (List by Name)	Time In	Time Out	Time In	Time Out	Time In	Time Out	Time In	Time Out

PERMIT SPACE HAZARDS

- ☐ Oxygen Enriched (>23.5%)
- ☐ Oxygen Deficient (<19.5%)
- ☐ Flammable Atmosphere
- ☐ Toxic Gases or Vapors
- ☐ Energized Equipment
- ☐ Electrical
- ☐ Entrapment
- ☐ Engulfment
- ☐ Hazardous Chemicals
- ☐ Other_____
- ☐ Other_____

SPECIAL REQUIREMENTS

- ☐ Signs Posted
- ☐ Fire Extinguisher(s)
- ☐ Lockout/Tagout
- ☐ Self-Contained Breathing Apparatus
- ☐ Spark Resistant Lighting
- ☐ Hot Work _____
- ☐ Other_____
- ☐ Personal Protective Equipment
  - ☐ Protective Clothing
  - ☐ Eye/Face Protection
  - ☐ Head Protection
- ☐ Barricades
- ☐ Ventilation
- ☐ Respirators
- ☐ Tripod Retrieval Unit
- ☐ Other_____
- ☐ Other_____

Test For	Permissible Levels	Pre-Entry Levels	Levels After Isolation & Ventilation	Periodic Check* Time/Result	Periodic Check* Time/Result	Periodic Check* Time/Result
Oxygen	19.5%-23.5%					
Carbon Monoxide	<35ppm					
Hydrogen sulfide	<10ppm					
Lower Explosive Limit	<10%					
Other						

CONFINED SPACE POLICY

Means for detecting an increase in atmospheric hazard levels in the event the ventilation system fails:

_____

_____

*The atmosphere within the space must be continuously monitored unless the entry employer can demonstrate that equipment for continuous monitoring is not commercially available or periodic monitoring is sufficient. If continuous monitoring is used, the monitoring equipment must have an alarm that will notify all entrants if a specified atmospheric threshold is achieved, or an employee must check the monitor with sufficient frequency to ensure that entrants have adequate time to escape. If continuous monitoring is not used, periodic monitoring is required. All monitoring must ensure that the continuous forced air ventilation is preventing the accumulation of a hazardous atmosphere.

Atmosphere Tested By:_____

Equipment Name	Type	Date Calibrated

COMMUNICATION MEASURES

☐ Visual ☐ Voice ☐ Pager ☐ Radio/Cell

Procedures

_____

_____

EMERGENCY PROCEDURES

Fire Department should be notified prior to entering confined space. If an emergency situation should occur, DO NOT ATTEMPT TO ENTER SPACE. CALL 911 IMMEDIATELY FOR RESCUE SERVICES.

Additional Information

_____

_____

Authorization By Entry Supervisor

I certify that all required conditions and/or actions have been performed and/or taken to provide safe entry and work in this confined space.

Signature:_____ Printed Name:_____

ELECTRICAL SAFETY POLICY

PURPOSE

The purpose of this policy is to establish safe work practices that are intended to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts when work is performed near or on equipment or circuits which are or may be energized. This policy applies to both "Qualified" employees and "Unqualified" employees who are working on, near, or with electrical installations defined below. This policy complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code created by the Wisconsin Department of Safety and Professional Services and 29 CFR 1910.302 through 1910.335 (Electrical Safety), including 1910.137 (Electrical Protective Devices) and 1910.269 (Electrical Generation, Transmission and Distribution) created by the U.S. Occupational Safety and Health Administration.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy

Department Heads

- Implement this policy
- Ensure training of Supervisors

Supervisors

- Ensure policy is adhered to by all employees
- Identify and locate hazardous electrical exposures and equipment
- Ensure employees are being trained on electrical hazards
- Ensure proper personal protective equipment is being used and tested

Employees

- Follow the requirements within this policy

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

- Qualified Person - An employee who is permitted to work on or near exposed energized parts after having met the training requirements established below. Qualified persons must be capable of working safely on energized circuits and must be familiar with the proper use of

special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools.

- Unqualified Person - An employee, such as a custodian or building engineer, whose work may cause them to come into close contact with an energized component, such as a fuse box, but who are not allowed to perform work on or near an energized part or piece of equipment.

DEPARTMENTAL REQUIREMENTS

This policy represents minimum electrical safety requirements. Department Heads may develop more specific procedures to be followed in their respective departments

TRAINING

Qualified Employees:

All qualified employees and any employee working with or exposed to 50 volts or more shall be trained in the following topics prior to their assignment and whenever facility electrical conditions change. Department Heads shall ensure this training is received and documented.

- The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment.
- The skills and techniques necessary to determine the nominal voltage of exposed live parts.
- The clearance distances specified in 29 CFR Part 1910.333(c) and the corresponding voltages to which the qualified person will be exposed.
- The proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools.

Unqualified Employees:

Unqualified employees shall be instructed prior to their assignment in safety related work procedures necessary for them to protect themselves from electrical hazards (e.g., resetting of a circuit breaker, etc.). Supervisors shall ensure this instruction is received and documented.

DOCUMENTATION REQUIREMENTS

Written certification of training and instruction record.

GENERAL REQUIREMENTS

No City employee shall be authorized to work on energized components of an electrical system except specifically authorized and qualified employees who have been designated in this policy.

Work activities and authorizations for qualified employees are restricted to the use of voltage meters to determine if voltage is being supplied to the equipment being tested. In these instances, test meters shall be properly insulated and under no condition shall they be used on systems in excess of 120 volts AC.

WORK ON OR NEAR EXPOSED DE-ENERGIZED PARTS

Live parts to which any employee may be exposed will be de-energized by following the City's lockout/tagout procedure before any employee works on or near them. This is unless de-energizing will introduce additional or increased hazards or is not feasible due to equipment design or operational limitations. In cases where de-energizing cannot be accomplished, employees will be instructed by supervision to stay clear of the area until appropriate safeguards (e.g. locking doors, barricading) are put in place to ensure that employees keep away from the area. Live parts that operate at less than 50 volts to ground need not be de-energized if there will be no increased exposure to electrical burns or to explosion due to electric arcs.

Examples of increased or additional hazards include deactivation of emergency alarm systems, shutdown of hazardous location ventilation equipment, or removal of illumination for an area.

Examples of work that may be performed on or near energized circuit parts because of infeasibility due to equipment design or operational limitations include:

- Testing of electric circuits that can only be performed with the circuit energized.
- Work on circuits that form an integral part of a continuous process that would otherwise need to be completely shut down in order to permit work on one circuit or piece of equipment. In these cases, such work is limited to systems of no more than 120 volts AC.

Whenever any employee is exposed to contact with parts of fixed electric equipment or circuits that have been de-energized, the circuits energizing the parts will be properly locked out as per the City's lockout/tagout policy.

Safe procedures for de-energizing circuits and equipment will be determined before circuits or equipment are de-energized. These procedures are required to be developed as per the City's lockout/tagout policy.

The circuits and equipment to be worked on will be disconnected from all electric energy sources. Control circuit devices, such as push buttons, selector switches, and interlocks, may not be used as the sole means for de-energizing circuits or equipment. Interlocks for electric equipment may not be used as a substitute for lockout/tagout procedures.

ELECTRICAL SAFETY POLICY

Stored electric energy that might endanger personnel will be released before starting work. Capacitors shall be discharged and high capacitance elements shall be short-circuited and grounded, if the stored electric energy might endanger personnel.

Stored non-electrical energy in devices that could reenergize electric circuit parts will be blocked or relieved to the extent that the circuit parts could not be accidentally energized by the device.

No work will be performed on or near de-energized live parts, circuits or equipment until their de-energized condition has been verified. Verification of the de-energized condition will be made as follows:

- A qualified person will operate the equipment operating controls or otherwise verify that the equipment cannot be restarted.
- A qualified person will use test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and will verify that the circuit elements and equipment parts are de-energized.
- The test shall also determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage backfeed even though specific parts of the circuit have been de-energized and presumed to be safe.

Before any circuit or equipment is reenergized (even temporarily) the following requirements will be met in the order listed:

- A qualified person will conduct tests and visual inspections, as necessary, to verity that all tools, electrical jumpers, shorts, grounds, and other such devices have been removed, so that the circuits and equipment can be safely energized.
- Employees exposed to the hazards associated with reenergizing the circuit or equipment will be warned to stay clear of circuits and equipment.
- Each lock will be removed by the employee who applied it or under his or her direct supervision.
- If that employee is absent from the workplace, then the lock may be removed provided that it is certain that the employee who applied the lock is not available at the workplace, and that employee is made aware that the lock has been removed before he or she resumes work as per the City's lockout/tagout policy.
- There will be a visual determination that all employees are clear of the circuits and equipment.

WORK ON OR NEAR EXPOSED ENERGIZED PARTS

In those cases where the exposed live parts are not de-energized, either because of increased or additional hazards or because of infeasibility due to equipment design or operational limitations, other safety-related work practices must be used to protect employees who may be exposed to the electrical hazards involved. The work practices used must protect employees against contact with energized circuit parts directly with any part of their body or indirectly through some other conductive object or where employees are near enough to be exposed to any hazard they present.

ELECTRICAL SAFETY POLICY

Only qualified persons may work on electric circuit parts or equipment that, has not been de-energized. This work is limited to systems of no more than 120 volts AC. These employees must be familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools.

Whenever any type of work is to be performed near overhead lines, the lines will be de-energized and grounded, or other protective measures will be provided before work is started. When overhead lines are to be de-energized, arrangements to de-energize and ground them will be made with the organization that operates or controls the electrical circuits involved. When protective measures are provided such as guarding, isolating, or insulating, those precautions shall prevent employees from contacting such lines directly with any part of their body or indirectly through conductive materials, tools, or equipment. Only electrical utility employees or their contractors will be permitted to install insulating devices on overhead power transmission or distribution lines.

Whenever an unqualified employee is working in an elevated position near overhead lines (e.g. aerial lift), the location will be such that the person and the longest conductive object he or she may contact cannot come closer to any unguarded, energized overhead line than the following distances:

- For voltages to ground 50,000 volts (50kV) or below - 10ft. (305cm);
- For voltages to ground over 50kV - 10 ft. (305cm) plus 4 inches (10 cm) for every l0kV over 50kV.

Whenever an unqualified employee is working on the ground in the vicinity of overhead lines, the person may not bring any conductive object closer to unguarded, energized overhead lines than the distances given above

For voltages normally encountered with overhead power lines, objects which do not have an insulating rating for the voltage involved are considered to be conductive. For example, a wooden rake handle that does not have an insulating rating is considered to be a conductive object.

Whenever any person is working in the vicinity of overhead lines, whether in an elevated position or on the ground, the person may not approach or take any conductive object without an approved insulating handle closer to exposed energized parts than that shown in Table 1 below unless:

- The person is insulated from the energized part. Gloves, with sleeves if necessary, rated for the voltage involved, are considered to be insulation of the person from the energized part on which work is performed, or
- The energized part is insulated both from all other conductive objects at a different potential and from the person, or
- The person is insulated from all conductive objects at a potential different from that of the energized part.

Table 1
Minimum Safe Approach Distances

Voltage Range (Phase to Phase)	Minimum Approach Distance
300V and less	Avoid Contact
Over 300V, not over 750V	1 ft. 0 in. (30.5 cm)
Over 750V, not over 2kV	1 ft. 6 in. (46 cm)
Over 2kV, not over 15kV	2 ft. 0 in. (61 cm)
Over 15kV, not over 37kV	3 ft. 0 in. (91 cm)
Over 37kV, not over 87.5kV	3 ft. 6 in. (107 cm)
Over 87.5kV, not over 121kV	4 ft. 0 in. (122 cm)
Over 121kV, not over 140kV	4 ft. 6 in. (137 cm)

Any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines will be operated so that a minimum clearance of 10 ft. (305 cm) is maintained. If the voltage is higher than 50kV, the clearance will be increased a minimum of 4 inches (10 cm) for every l0kV over that voltage.

Employees standing on the ground may not contact the vehicle or mechanical equipment or any of its attachments, unless:

- The employee is using protective equipment rated for the voltage; or
- The equipment is located so that no un-insulated part of its structure (that portion of the structure that provides a conductive path to employees on the ground) can come closer to the line than permitted in paragraph number 12 (see above).

If any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines is intentionally grounded, employees working on the ground near the point of grounding will not stand at the grounding location whenever there is a possibility of overhead line contact.

Additional precautions, such as the use of barricades or insulation, will be taken to protect employees from hazardous ground potentials, depending on earth resistivity and fault currents that can develop within the first few feet or more outward from the grounding point

Qualified employees may not enter spaces containing exposed energized parts, unless illumination is provided that enables the qualified employee to perform the work safely.

Where lack of illumination or an obstruction precludes observation of the work to be performed, qualified employees may not perform tasks near exposed energized parts.

Employees must not reach blindly into areas which may contain energized parts.

ELECTRICAL SAFETY POLICY

Whenever a qualified employee works in a confined or enclosed space (such as a manhole or vault) that contains exposed energized parts, he/she must be provided with, and will use, protective shields, protective barriers, or insulating materials as necessary to avoid inadvertent contact with those parts.

Doors, hinged panels, etc. that are present in any confined or enclosed space will be secured to prevent their swinging into an employee and causing the employee to contact exposed energized parts.

Conductive materials and equipment that are in contact with any part of an employee's body will be handled in a manner that will prevent them from contacting exposed energized conductors or circuit parts.

Whenever an employee must handle long dimensional conductive objects (such as ducts and pipes) in areas with exposed live parts, appropriate work practices (such as the use of insulation, guarding and material handling techniques) shall be instituted which will minimize the hazard.

Only wooden ladders or ladders with nonconductive side rails will be used in situations where the employee or ladder could contact exposed energized parts.

Conductive articles of jewelry and clothing (such as watch bands, bracelets, rings, metal belt buckles, metal rimmed glasses, keychains, necklaces, metalized aprons, cloth with conductive thread, or metal headgear) may not be worn if they might contact exposed energized parts. However, such articles may be worn if they are rendered nonconductive by covering, wrapping, or other insulating means.

Where live parts present an electrical contact hazard, employees may not perform housekeeping duties at such close distances to the parts that there is a possibility of contact, unless adequate safeguards (such as insulating equipment) are provided.

Electrically conductive cleaning materials (including conductive solids such as steel wool, metalized cloth, and silicon carbide, as well as conductive liquid solutions) may not be used in proximity to energized parts unless appropriate procedures are followed that will prevent electrical contact.

Only a qualified person following the requirements of the procedures set forth in this section of the policy may defeat an electrical safety interlock (limited to 120 volts AC) and then only temporarily while he or she is working on the equipment.

The interlock system will be returned to its operable condition when such work is completed.

PORTABLE ELECTRIC EQUIPMENT

All cord- and plug-connected electric equipment, flexible cord sets (extension cords), and portable electric equipment will be handled in a manner that will not cause damage.

Flexible electric cords connected to equipment may not be used for raising or lowering the equipment.

Flexible cords may not be fastened with staples or otherwise hung in such a fashion as could damage the outer jacket or insulation

Portable cord- and plug- connected equipment and flexible cord sets (extension cords) shall be visually inspected before use and missing pins, or damage to outer jacket or insulation and for evidence of possible internal damage (such as pinched or crushed outer jacket). However, cord- and plug- connected equipment and flexible cord sets (extension cords) which remain connected once they are put in place and are not exposed to damage need not be visually inspected until they are relocated.

If there is a defect or evidence of damage that might expose an employee to injury, the defective or damaged item will be removed from service, and no employee may use it until necessary repair and tests have been made to render the equipment safe.

Whenever an attachment plug is to be connected to a receptacle (including any on a cord set), the relationship of the plug and receptacle contacts will first be checked to ensure that they are of proper mating configurations.

A flexible cord used with grounding-type equipment will contain an equipment grounding conductor.

Attachment plugs and receptacles may not be connected or altered in a manner that would prevent proper continuity of the equipment grounding conductor at the point where plugs are attached to receptacles. Additionally, those devices may not be altered to allow the grounding pole of a plug to be inserted into slots intended for connection to the current carrying conductors.

Adapters that interrupt the continuity of the equipment grounding connection may not be used.

Portable electric equipment and flexible cords used in highly conductive work locations (such as those flooded with water or other conductive liquids), or in job locations where employees are likely to contact water or conductive liquids.

Employees' hands shall not be wet when plugging and unplugging flexible cords and cord and plug-connected equipment, if energized equipment is involved.

Energized plug and receptacle connections shall be handled only with insulating protective equipment if the condition of the connection could provide a conducting path to the employees hand (if, for example, a cord connector is wet from being immersed in water).

Locking-type connectors will be properly secured after connection.

ELECTRICAL SAFETY POLICY

ELECTRIC POWER AND LIGHTING CIRCUITS

Load rated switches, circuit breakers, or other devices specifically designed as disconnecting means will be used for the routine opening, reversing, or closing of circuits under load conditions.

Cable connectors not of the load-break type, fuses, terminal lugs, and cable splice connections may not be used for such purposes, except in an emergency.

After a circuit is de-energized by a circuit protective device, the circuit may not be manually reenergized until it has been determined that the equipment and circuit can be safely energized. However, when it can be determined from the design of the circuit and the overcurrent devices involved that the automatic operating of a device was caused by an overload connected equipment is needed before the circuit is reenergized.

Repetitive manual reclosing of circuit breakers or reenergizing circuits through replaced fuses is prohibited. Such a condition would indicate an electrical problem and a qualified outside contractor should be contacted.

- Overcurrent protection of circuits and conductors may not be modified, even on a temporary basis, beyond that allowed by the OSHA standard regulating the installation safety requirements for overcurrent protection (See 29 CFR 1910.304(e)).

TEST INSTRUMENTS AND EQUIPMENT

Only qualified persons may perform testing work on electric circuits or equipment.

Test instruments and equipment and all associated test leads, cables, power cords, probes, and connectors will be visually inspected for external defects and damage before the equipment is used. If there is a defect or evidence of damage that might expose an employee to injury, the defective or damaged item will be removed from service, and no employee may use the item until necessary repairs and tests to render the equipment safe have been made.

Test instruments and equipment and their accessories will be insulated and rated for the circuits and equipment to which they will be connected and will be designed for the environment in which they will be used.

FLAMMABLE OR IGNITABLE MATERIALS

In those situations where flammable materials are present only occasionally, electric equipment capable of igniting them will not be used, unless measures are taken to prevent hazardous conditions from developing. Flammable materials include, but are not limited to:

- Flammable gases

- Vapors or liquids
- Combustible dust and
- Ignitable fibers or filings

In those situations where flammable vapors, liquids or gases, or combustible dusts or fibers are (or may be) present on a regular basis, the electrical installation requirements contained in the OSHA standard regulating hazardous locations must be observed (See 29 CFR 1910.307).

PERSONAL PROTECTION SAFEGUARDS

Employees working in areas where there are potential electrical hazards will be provided with, and will use, electrical protective equipment that is appropriate for the specific parts of the body to be protected and for the work to be performed. This equipment may include rubber protective equipment such as insulating gloves, blankets, hoods, line hose, sleeves, and matting for use around electric apparatus.

Protective equipment will be maintained in a safe, reliable condition and will be periodically inspected and/or tested.

If the insulating capability of protective equipment may be subject to damage during use, the insulating material shall be protected. For example, an outer covering of leather can be used for the protection of rubber insulating material.

Employees will wear nonconductive head protection wherever there is a danger of head injury from electric shock or burns due to contact with exposed energized parts.

Employees will wear protective equipment for the eyes or face wherever there is danger of injury to the eyes or face from electric arcs or flashes or from flying objects resulting from electrical explosion.

When working near exposed energized conductors or circuit parts, each employee will use insulated tools or handling equipment if the tools or handling equipment might make contact with such conductors or parts. If the insulating capability of insulated tools or handling equipment is subject to damage, the insulating material will be protected.

Fuse handling equipment, insulated for the circuit voltage, will be used to remove or install fuses when the fuse terminals are energized.

Ropes and hand lines used near exposed energized parts shall be nonconductive.

Protective shields, protective barriers, or insulating materials will be used to protect each employee from shock, burns, or other electrically related injuries while that employee is working near exposed energized parts which might be accidentally contacted or where dangerous electric heating or arcing might occur.

ELECTRICAL SAFETY POLICY

When normally enclosed live parts are exposed for maintenance or repair, they will be guarded to protect unqualified persons from contact with their live parts.

Alerting techniques will be used to warn and protect employees from hazards which could cause injury due to electric shock, burns, or failure of electric equipment parts as follows:

- Safety Signs and Tags: Safety signs, safety symbols, or accident prevention tags will be used where necessary to warn employees about electrical hazards which may endanger them.
- Barricades: Barricades will be used in conjunction with safety signs where it is necessary to prevent or limit employee access to work areas exposing employees to un-insulated energized conductors or circuit parts. Conductive barricades may not be used where they might cause an electrical contact hazard.
- Attendants: If signs and barricades do not provide sufficient seaming and protection from electrical hazards, an Attendant will be stationed to warn and protect employees.

EMERGENCY ACTION PLAN POLICY

PURPOSE

This policy has been established to ensure that emergency plans are developed, implemented and communicated to each employee, department and department facility within the City of Madison.

This policy complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code as created by the Wisconsin Department of Safety and Professional Services and 29 CFR 1910.38 (Emergency Action Plans) as created by the U.S. Occupational Safety and Health Administration.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy.

Department Heads

- Implement this policy.
- Develop department specific emergency action plans and evacuation route maps.

Supervisors

- Train employees.

Employees

- Follow the requirements contained in their department's emergency action plan.

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

- Emergency - any event that has the potential to adversely affect human health, safety or the environment.
- Tornado Warning - means a tornado has been spotted in your area.
- Tornado Watch - means a tornado is likely to develop.

EMERGENCY ACTION PLAN POLICY

DEPARTMENTAL REQUIREMENTS

This policy represents minimum emergency planning requirements. Emergency plans specific to each department are required to be developed, implemented and communicated to employees.

TRAINING

Department Heads or a designated person(s) will train employees in emergency procedures, safe evacuation routes, and designate employees to assist with the facilities emergency action plan as needed:

- When the plan is developed or the employee is assigned initially to a job.
- When the employee's responsibilities under the plan change; and
- When the plan is changed.

DOCUMENTATION REQUIREMENTS

Departmental specific emergency action plans and evacuation route maps are required.

GENERAL REQUIREMENTS

Each Department Head is responsible for developing a specific emergency action plan for their department using the guidance provided by the City of Madison Safety Coordinator. Other departments may be used as resources for proper emergency planning (i.e., Emergency Management, Madison Police Department, Public Health, Fire Department, etc.) Employees will be trained in the contents of this plan.

Fire Emergency

Upon discovery of a fire:

1. Pull nearest fire alarm
2. Dial 9-1-1 from a safe area.
3. Close the door of the room where the fire is located if possible. Do not lock the door.
4. Evacuate the building via nearest exit.

When you hear an alarm, loud repeating sound, or see flashing lights:

1. Secure any cash registers and evacuate the area immediately via nearest exit.
2. Close the door of your office (if applicable) as you evacuate the area. Do not return for personal items like: coats, purses, etc.
3. Keep calm. Proceed in single file.
4. Do NOT use elevators.
5. Leave building immediately via nearest stairway. Use hand rails. Stay to the right. Direct visitors to do likewise.
    a. People with Disabilities

   i. Shall proceed to the nearest stairwell's designated assistance area and wait near the fire exit.
   ii. If smoke or fire is present, proceed into stairwell landing. Employees shall be alert to persons with disabilities and offer assistance.
6. If caught in heavy smoke, take short breaths: breathe through your nose. Stay low, crawl if necessary.
7. Proceed and report to your designated departmental assembly area away from the building for a head count.
8. Make fire personnel aware of any disabled employees waiting for assistance.
9. Return when the all clear signal is given by the designated authority. Departments will be informed by fire personnel when re-entry is permissible.

Tornado/Severe Weather Emergency

A Tornado Watch/Severe Weather WATCH means a tornado or severe weather is likely to develop. Be alert to changing weather situations and be prepared to take action.

A Severe Weather WARNING means severe weather has been reported in your area. A Tornado Warning means a tornado has been spotted in your area. Take action immediately. When a tornado warning has been issued, the 9-1-1 Center will activate the county-wide siren system and the building occupants will be notified.

Action to take upon severe weather notification:

1. Leave your office area and close the door.
2. Go to the nearest interior hallway away from doors and windows with glass.
3. DO NOT USE THE ELEVATORS.
4. Await further instructions from emergency authorities.
5. Make every effort to remain calm and encourage those around you to do likewise. Assist others as necessary.
6. If persons with disabilities need assistance, help them to an interior hallway away from windows and doors with glass.
7. Take a head count for accountability.
8. Protect your head and face.
9. Return to your office only after the All Clear signal is given.

If you are caught in an office with exterior windows:

1. Seek protection under a desk as far away from glass as possible.

Field Employees:

1. Seek shelter in a sturdy building (truck stop, convenient store, restaurant, etc.)
   a. If working with a crew, take a head count for accountability.
2. If the threat is immediate:

   a. Get as far away from trees and cars as possible (potential for debris and crushing hazards).
   b. Seek low ground (ditches, culverts, ravines, etc.).
   c. DO NOT TAKE REFUGE UNDER OVERPASSES.
   d. Lie flat and face down on the ground.
   e. Place your hands on the back of your head.
3. In the case of a Severe Thunderstorm:
   a. Seek shelter in a vehicle or enclosed building immediately.
   b. Wait at least 30 minutes after seeing lightning or hearing thunder before resuming work. (National Park Service)
   c. Call supervisor for further instructions.

Active Shooter/Workplace Threats Emergency

Each incident of workplace violence is different. Take the necessary action listed below depending upon the nature of the threat.

If confronted by a threatening (distraught, harassing, or abusively angry) person:

1. Do not argue with them.
2. Act in a courteous manner and try to calm the person down. There may be situations where you can use your customer service skills, best judgment and experience to help resolve the situation.
3. Contact your supervisor and/or co-workers for assistance if possible.

If the situation escalates (threatened and in danger of imminent bodily harm or property damage), immediately:

1. Call 9-1-1. Stay on the line until told to hang up or until the dispatcher hangs up. Do not hang up first. If you can't speak freely, just calling and leaving the receiver off the hook may allow a dispatcher to hear noises that will clarify the nature of the incident.
   a. The dispatcher may not be able to identify your location so try to work it into the conversation.
2. Remember to use your panic button if one is installed.
   a. If you don't have access to a panic button, you may be able to use a phone to alert co-workers.

If you witness an act of workplace violence that does not directly involve you, your actions will depend on your assessment of the situation and your judgment. In some cases, your involvement may help a co-worker; other times it may be better to simply slip away and call 9-1-1.

In the unfortunate event that an active shooter scenario occurs, employees will be suggested to:

- Avoid
  - Avoid starts with your state of mind.
    - Pay attention to your surroundings.

        - Have an exit plan.
        - Move away from the source of the threat as quickly as possible.
        - The more distance and barriers between you and the threat, the better.

- Deny
    - Deny when getting away is difficult or maybe even impossible.
        - Keep distance between you and the source.
        - Create barriers to prevent or slow down a threat from getting to you.
        - Turn the lights off.
        - Remain out of sight and quiet by hiding behind large objects.
        - Silence your phone.
- Defend
    - Defend because you have the right to protect yourself.
        - If you cannot Avoid or Deny be prepared to defend yourself.
        - Be aggressive and committed to your actions.
        - Do not fight fairly. This is about survival.

Employee or Public Injury or Illness Emergency

In the event of an injury or illness in your area:

1. Dial 9-1-1 or instruct a bystander to dial 9-1-1.
2. Be prepared to answer the questions asked by the dispatcher.
3. Do not hang up until told to do so or until the dispatcher hangs up as additional information may be needed.
4. Do not move the injured or ill person(s) unless it is necessary to avoid further injury, e.g., fire, traffic, tornado.
5. Reassure the accident victim or ill person that emergency assistance is on the way.
6. Have someone meet the emergency unit at the designated street entrance or location.

Bomb Threat/Suspicious Package Emergency

In the event of a bomb threat:

1. If bomb threat is received over the phone or the TTY, write down all information. Do not hang up the phone. Leave the TTY unit on and dial 9-1-1 from another phone or ask someone else to dial 9-1-1.
2. If a written threat is received, save all materials. Avoid unnecessary handling. Dial 9-1-1.

In the event of a suspicious object or potential bomb:

1. If you observe a suspicious object or potential bomb in the building, do not handle the object, do not alter, change, or disturb the environment. If lights are on, leave on, if off, leave off.
2. Do not transmit on radios or cell phones, in the immediate area of the object. If you can see the object, the rule of thumb is you are too close.

3. Immediately dial 9-1-1 and evacuate the area.

If an order to evacuate the building is given, take the following steps:

1. Secure any cash registers. Only take your belongings with you if you have them in your possession. Never go back for them.
2. Turn off cell phones. Do not use until the all clear is given.
3. Visually sweep the room for suspicious items. Initiate suspicious package protocol if necessary.
4. Leave building or area by the closest exit available.
    a. Persons with Disabilities
        i. Shall proceed to the nearest stairwell's designated assistance area and wait near the fire exit.
        ii. If smoke or fire is present, proceed into stairwell landing. Employees should be alert to persons with disabilities and offer assistance.
5. Keep calm. Proceed in single file.
6. Do not touch light switches.
7. When you exit the building, proceed to your designated assembly area and take a head count for accountability.
8. Do not return to the building or area until instructed by Emergency Personnel.

Elevator Emergency

What to do in an emergency:

1. Remain calm.
2. Do not force the elevator open.
3. Push the elevator's HELP button on the elevator's wall or in phone door. The Help button, upon pickup, will automatically dial through to 9-1-1. If phone is inoperable, press alarm button.
4. 9-1-1 notifies the appropriate emergency personnel.
5. If a person is stranded in an elevator, do not attempt to open the doors. Be patient. Reassure the stranded person that help is coming and keep in contact with dispatch until help arrives.

Remain in Place Emergency

In the event of a situation occurring outside the building that police or fire personnel deem an emergency, you may be advised to "Remain in Place." Remain in Place is a precaution intended to keep you safe while remaining inside of the building. In some situations, it is better to remain indoors than to risk exposure by attempting to evacuate. With all air-handling and ventilation systems properly shut down, the building will provide a good barrier against air-borne chemical contaminants. Remain in Place is a short-term precaution.

Incident Command or Officer in Charge (OIC) will issue the directive to Remain in Place. In a Remain in Place, you will receive your directives from Incident Command, OIC, or supervisor.

EMERGENCY ACTION PLAN POLICY

In a Remain in Place emergency:

1. Stay Calm
2. Stay in your office or go to an interior room with the fewest windows and doors.
3. When inside, close the door. (If an airborne chemical issue, close windows.)
4. Shut down all fans and other devices that move or blow air. Designated authorities will shut down the building ventilation system once instructed by the Incident Command.
5. Do not use the elevators.
6. Await further instructions from Incident Command.

In the event of an emergency outside the building, instructions will be communicated to facilitate proper safety procedures.

Power Outage Emergency

In case of a power outage:

1. Stay calm.
2. All employees shall meet in a well-lighted room or gathering space (if applicable).
3. Take a head count for accountability.
4. Wait for authorized authority's instructions.
5. If advised to leave, follow exit signs to the nearest stairwell. If a flashlight is available, use it. Remember, most phones are equipped with flashlights on them.
    a. Persons with Disabilities
        i. Shall proceed to the nearest stairwell's designated assistance area and wait near the fire exit.
        ii. If smoke or fire is present, proceed into stairwell landing. Employees should be alert to persons with disabilities and offer assistance.

EVACUATION MAPS

Evacuation exit maps showing the preferred (primary) and secondary (alternative) exit routes for safe egress from the building will be posted within each facility at intervals that allow for quick and efficient evacuation of the building in the event of an emergency. Department Heads will be responsible for the development and posting of these maps.

CONTRACTORS

Departments that bring contractors or visitors on site are responsible for training the contractor or visitor on the Emergency Action Plans established for their department.

The contractor(s) and/or visitor(s) are responsible for following the Emergency Action Plans put into place by the department they are in.

ERGONOMICS POLICY

PURPOSE

This policy has been created to assist with making ergonomically correct work positions when using computer workstations and also covers general office safety. This policy applies to all workstations and complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code as created by the Wisconsin Department of Safety and Professional Services and 29 CFR Part 1910.900 (Ergonomics Program) as created by the U.S. Occupational Safety and Health Administration.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy.

Department Heads

- Ensure workstations comply with these requirements.

Supervisors

- Ensure policy is followed by all employees.

Employee

- Follow the requirement contained in this policy.

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

- Ergonomics - the science of designing the job, equipment, and workplace to fit the worker.

DEPARTMENTAL REQUIREMENTS

This policy represents minimum requirements related to computer workstations and office safety guidelines. Individual departments may implement more protective measures.

TRAINING

Employees who use a computer will receive instruction in this policy at their time of assignment and whenever this policy is revised.

DOCUMENTATION REQUIREMENTS

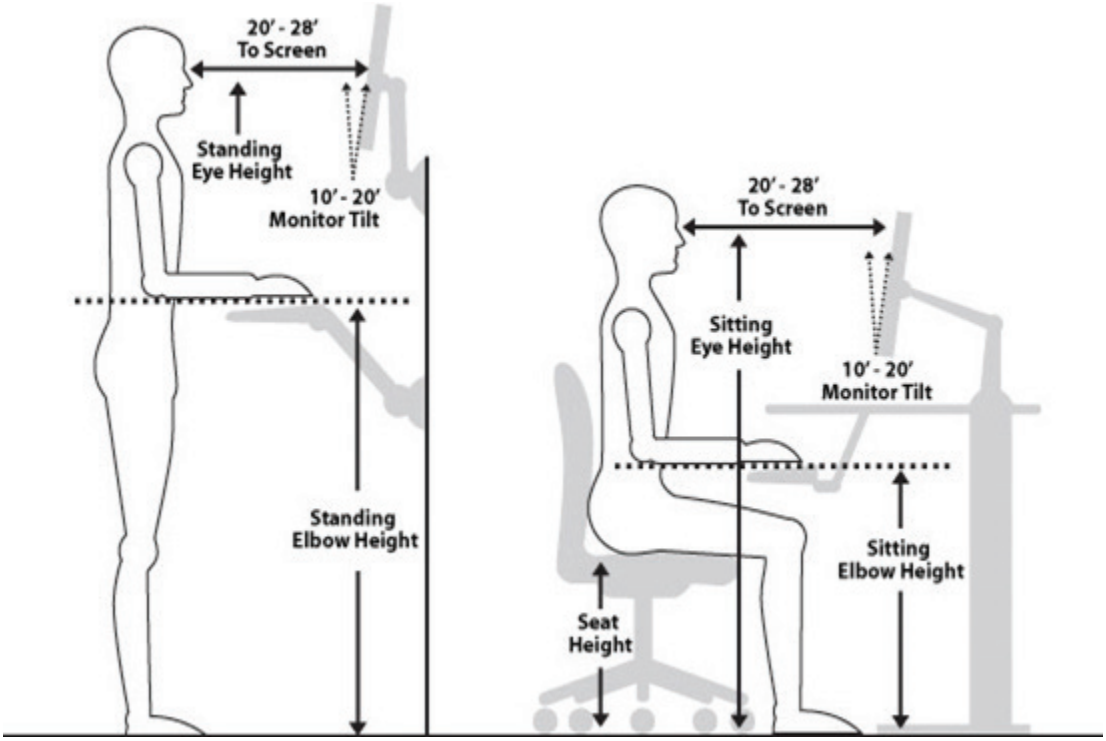
Individual departments are responsible for storing the sign-in sheets of the individuals that attended this training.

WORKSTATION DESIGN

A workstation should provide an employee with a comfortable sitting position sufficiently flexible to reach, use, and look at the screen, keyboard, and documents. In order to minimize fatigue, the following guidelines should be implemented:

- Back Region Support - The seat and backrest of the chair should support a comfortable posture permitting occasional variations in sitting position. Chair height and back rest angle should be adjustable. A foot rest may provide support to the lower back region.
- Arms - When the hands are resting on the keyboard, the upper arm and forearm should form a right angle and the hands should form a straight line with the forearm.
- Legs and Feet - The chair height is correct when the sole of the foot can rest on the floor or footrest and the back of the knee is slightly higher than the seat of the chair. This allows the blood to circulate freely in the legs and feet.
- Screen Adjustments - The screen to the display terminal or monitor should be able to tilt or swivel vertically in order to enable the employee to select the optimum viewing angle.
- Eye and Screen - The topmost line of the display should not be higher than the user's eye. The screen and document should be the same distance from the eye in order to avoid constant changes of focus.
- Document Holder - A vertical document holder should be utilized to allow for a comfortable position that relieves straining on the eyes and neck when typing from a document.

ERGONOMICS POLICY



LIGHTING

Workstations and lighting should be arranged to avoid reflections on the display screen of surrounding surfaces and objects. Light should be directed so that it does not shine in the employee's eyes when looking at the screen. Glare can result from light reflecting on a display screen or shiny keyboard. Anti-reflective screen treatments can be added to a video display screen.

LCD monitors provide a matte finish and anti-glare screen. To avoid glare, display screens and monitors may be placed near a window so the line of sight between the eye and the screen is parallel to the window surface.

GENERAL OFFICE SAFETY

- Care of Work Station - It is each employee's responsibility to keep their work station neat and free from clutter. Furniture such as tables, desks, and chairs must be maintained in good condition and be free from sharp corners, projecting edges, wobbly legs, etc. Report any loose or rough floor covering to your Supervisor.
- File Drawers - All file, desk, or table drawers are to be kept closed when not in use. Never open more than one file cabinet drawer at the same time. As soon as you leave, close them. Never overload top cabinet drawers.

- Ladders - Never use chairs, desks, tables, or other office furniture in place of a ladder or as a makeshift ladder. Use a step ladder. If there is no step ladder available, inform your Supervisor so that one can be purchased if needed. Don't overreach and lose your balance.
- Chairs - Employees should not recline in office chairs if chairs are not equipped to recline.
- Doors and blind corners - Be cautious when approaching a door that can be pushed toward you. Slowly push doors open and slow down when coming to a blind corner.
- Paper cutters and office utensils - Care should be exercised when using and storing scissors, paper cutters, razor blades, etc. Keep the blades of paper cutters closed when not in use. Also make sure paper cutters are equipped with guards. Use a sponge or other wetting device for sealing envelopes. Use rubber finger guards when working with stacks of paper.
- Office electrical - When removing an electrical plug from a receptacle, pull by the plug and not the cord. Ensure equipment is grounded and that the cord is in good condition. If a machine gives you a shock or starts smoking, unplug it and report it to your supervisor. Where appropriate, all equipment should be turned off when unattended or not in use. Electrical cords should be placed to avoid creating a trip hazard. If a cord must cross a pedestrian walkway, it should be enclosed in an appropriate track and secured to the floor. Extension cords are not allowed to be used for heating equipment. Frayed, worn, or broken electrical cords should immediately be reported to your Supervisor.
- Accessory devices - The use of accessory devices for personal work areas such as space heaters and fans, must be pre-approved for use by a supervisor. Such devices must be UL rated and have adequate safety features to prevent a fire. For example, portable electric space heaters must be equipped with a grill and automatic shut-off protection and a tip-over switch.
- Electrical power switches - Electrical power strips are designed to be used for low amperage accessories such as computer equipment, desktop printers and other peripheral equipment. Power strips are not designed for plugging in appliances or heating equipment (i.e., heaters, toasters, microwave ovens, coffee pots, etc.).

FALL PROTECTION POLICY

PURPOSE

This policy contains safety requirements to protect employees from falls of six (6) feet or more when performing elevated work except on ladders and scaffolding (See Ladders and Scaffolding Policy). This includes all construction work and activities that subject employees to elevated heights, including, but not limited to: changing light bulbs, trimming trees, all hi-lo truck work, painting, etc. This policy complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code as promulgated by the Wisconsin Department of Safety and Professional Services and 29 CFR Subpart M (Fall Protection) as promulgated by the U.S. Occupational Safety and Health Administration.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy.

Department Heads

- Implement this policy.
- Designate qualified persons.

Supervisors

- Ensure policy is adhered to by all employees.

Employees

- Follow requirements contained in this policy.

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

- Leading Edge - means the edge of a floor, roof, or formwork for a floor or other walking/working surface (such as the deck) which changes location as additional floor, roof, decking, or formwork sections are placed, formed, or constructed. A leading edge is considered to be an “unprotected side and edge” during periods when it is not actively and continuously under construction.

- Low-Slope Roof - means a roof having a slope less than or equal to 4 in 12 (vertical to horizontal)

- Personal Fall Arrest System - means a system used to arrest an employee in a fall from a working level. It consists of an anchorage, connectors, a body belt or body harness and may include a lanyard, deceleration device, lifeline, or suitable combinations of these. As of January 1, 1998, the use of a body belt for fall arrest is prohibited.

- Qualified Person - means who, by possession of a recognized degree, certificate or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project. (Typically the supervisor)

DEPARTMENTAL REQUIREMENTS

This policy represents minimum fall protection requirements. Department Heads may develop more specific procedures to be followed in their respective departments.

TRAINING

Employees engaged in activities that expose them to fall hazards at heights of six (6) feet or more will receive training in the requirements of this policy at their time of initial assignment. Additionally, the employee will receive training in fall protection to be provided by a qualified person. Retraining will be provided whenever conditions or work practices and/or equipment changes or when an employee demonstrates a lack of understanding for the requirements associated with fall protection.

DOCUMENTATION REQUIREMENTS

Written documentation of training records.

GENERAL REQUIREMENTS

- Supervisors will ensure that all fall protection systems selected for each application will be installed before an employee is allowed to go to work in an area that requires the protection. When selecting and purchasing fall protection equipment and supplies, they must be approved for the purpose for which they are intended. Such fall protection equipment is required to bear appropriate labels clearly indicating that the equipment meets or exceeds applicable ANSI and ASTM requirements.
- All elevated work above six (6) feet requires that employees utilize some type of personal fall arrest system such as lanyards, lifelines or other protections as provided in this policy.
- Where lanyards and vertical fall arrest systems are used, a body harness shall be worn with lanyards and vertical fall arrestors being anchored to a suitable point sufficient to withstand above and beyond the force of impact as specified in 29 CFR 1926.503 and 1916 Subpart M Appendices A through E.

- Supervisors will determine if the walking / working surfaces on which its employees are to work have the strength and structural integrity to support employees safely. Employees will be allowed to work on those surfaces only when the surfaces have the requisite strength and structural integrity.
- If the situation calls for use of fall protection devices such as harnesses or lanyards and belts because the fall hazard cannot be reduced to a safe level, then the employee must don such protective equipment before beginning the work and use it as intended throughout the duration of the work.
- Only employees trained in such work are expected to perform it.
- All worksites shall be kept clean and orderly and in a sanitary condition.
- All walking/working surfaces must be kept in a clean and, so far as possible, dry condition. Where wet processes are used, drainage shall be maintained, and false floors, platforms, mats, or other dry standing places should be provided where practicable.

PERSONAL FALL ARREST SYSTEMS

- Personnel requiring the use of personal fall protection equipment shall employ the "Buddy System" or have an observer to render assistance when and if required.
- There are three main components to the personal fall arrest system. This includes the personal protective equipment the employee wears, the connecting devices and the anchorage point. Prior to tying off to perform the work, a means of rescue in the event of a fall must be immediately available. The system needs to meet the following criteria for each component:

    - Personal Protective Equipment
        - Full body harnesses are required. The use of body belts is prohibited.
        - The attachment point of the body harness is the center D-ring on the back.
        - Employees must always tie off at or above the D ring of the harness except when using lanyards 3 feet or less in length.
        - Harnesses or lanyards that have been subjected to an impact load shall be destroyed unless involved in an accident in which case it shall be turned over to the Supervisor.
        - Load testing shall not be performed on fall protection equipment.
    - Connecting Devices
        - This device can be a rope or web lanyard, rope grab or retractable lifeline.
        - Only locking snap hooks may be used.
        - Horizontal lifelines will be designed by a qualified person and installed in accordance with the design requirements.
        - Lanyards and vertical lifelines need a minimum breaking strength of 5,000 pounds.
        - Lanyards may not be clipped back to itself (e.g., around an anchor point) unless specifically designed to do so.

- If vertical lifelines are used, each employee will be attached to a separate lifeline.
- Lifelines need to be protected against being cut or abraded.

- Anchorage
  - Secure anchor points are the most critical component when employees must use fall arrest equipment. Buildings may have existing structures (e.g., steel beams that may meet the criteria for a secure anchor point). Other work locations and assignments may require the installation of a temporary or permanent anchor. As a minimum, the following criteria must be considered for each type of anchor point:

    - Structure must be sound and capable of withstanding a 5000 lb. static load/person attached.
    - Structure/anchor must be easily accessible to avoid fall hazards during hook up. Direct tying off around sharp edged structures can reduce breaking strength by 70% therefore; chafing pads or abrasion resistant straps must be used around sharp edged structures to prevent cutting action against safety lanyards or lifelines.
    - Structures used as anchor points must be at the worker's shoulder level or higher to limit free fall to 6 feet or less and prevent contact with any lower level (exception – when self-retracting lifelines and or 3 foot lanyards are used).
    - Choose structures for anchor points that will prevent swing fall hazards. Potentially dangerous "pendulum" like swing falls can result when a worker moves horizontally away from a fixed anchor point and falls. The arc of the swing produces as much energy as a vertical free fall and the hazard of swinging into an obstruction becomes a major factor. Raising the height of the anchor point can reduce the angle of the arc and the force of the swing. Horizontal lifelines can help maintain the attachment point overhead and limit the fall vertically. A qualified person must design a horizontal lifeline.
- Permanent Anchor Requirements
  - In addition to all the criteria listed above, the following points must be considered.
  - Environmental factors and dissimilarity of materials can degrade exposed anchors.
  - Compatibility of permanent anchors with employee's fall arrest equipment.
  - Inclusion of permanent anchors into a Preventive Maintenance Program with scheduled annual re-certification.
  - Visibly label permanent anchors.
  - Anchors must be immediately removed from service if subjected to fall arrest forces.

- Reusable Temporary Anchors
  - Reusable temporary roof anchors must be installed and used following the manufacturer's installation guidelines.
  - Roof anchors must be compatible with employee's fall arrest equipment.
  - Roof anchors must be removed from service at the completion of the job and inspected prior to reuse following the manufacturer's inspection guidelines.
  - Roof anchors must be immediately removed from service and disposed of if subjected to fall arrest forces.
- Complete System
  - If a fall occurs, the employee should not be able to free fall more than six (6) feet nor contact a lower level. To ensure this, add the height of the worker, the lanyard length and an elongation length of 3.5 feet. Using this formula, a six-foot worker with a six-foot lanyard would require a tie-off point at least 15.5 feet above the next lower level.
    - A personal fall arrest system that was subjected to an impact needs to be removed from service immediately.
    - Personal fall arrest systems need to be inspected prior to each use and damaged or deteriorated components removed from service.
    - Personal fall arrest systems should not be attached to guardrails nor hoists.
- Inspection
  - The employee will inspect the entire personal fall arrest system prior to every use. The competent person will inspect the entire system in use at the initial installation and weekly thereafter. The visual inspection of a personal fall arrest system periodically will follow the manufacturer's recommendations.

WORK FROM AERIAL LIFTS

- Body harnesses must be worn with a shock-absorbing lanyard and must be worn when working from an elevated work platform. The point of attachment must be the lift's boom or work platform.
- Personnel cannot attach lanyards to adjacent poles, structures or equipment while they are working from the aerial lift.
- Certain aerial lifts that are not designed for driving operations while the boom is in an elevated position must be lowered prior to moving while and the operator is inside of the lift platform. (See manufacturer's guidelines for specific lifts operations)

GUARDRAIL SYSTEMS

Guardrails are needed at the edge of work areas six (6) feet or more in height to protect employees from falling. This includes the edge of excavations greater than six (6) feet in depth. Guardrail systems need to meet the following criteria:

- Top rail is 42 inches, +/- 3 inches above the walking/working level.
- Mid rail is 21 inches, +/-3 inches and is located midway between the top rail and the walking/working level.
- It is important to remember that the working level is the level where the work is being done. Someone working on a stepladder next to an edge may raise his/her working surface well above the walking surface.
- Both top and mid rails should be constructed of materials at least one-quarter inch in thickness or diameter. If wire rope is used for top rails, it needs to be flagged with a high-visibility material at least every six (6) feet and can have no more than 3" of deflection.
- The top rail needs to withstand a force of 200 pounds when applied in any downward or outward direction.
- The mid rail needs to withstand a force of 150 pounds applied in any downward or outward direction.
- The system should be smooth to prevent punctures, lacerations or snagging of clothing.
- The ends of the top rail should not overhang the terminal posts, except when such overhang does not present a projection hazard.
- When a hoisting area is needed, a chain, gate or removable guardrail section must be placed across the access opening when hoisting operations are not taking place.

UNPROTECTED SIDES AND EDGES

Each employee on a walking / working surface (horizontal and vertical surface) with an unprotected side or edge which is six (6) feet (1.8 m) or more above a lower level shall be protected from falling by the use of guardrail systems, safety net systems, or personal fall arrest systems.

LEADING EDGES

Each employee who is constructing a leading edge six (6) feet (1.8 m) or more above lower levels shall be protected from falling by guardrail systems, safety net systems, or personal fall arrest systems. Exception: If a Supervisor can demonstrate that it is infeasible or creates a greater hazard to use these systems, a fall protection plan shall be developed that meets the requirements of paragraph (k) of 29 CFR 1926.502.

Note: There is a presumption that it is feasible and will not create a greater hazard to implement at least one of the above-listed fall protection systems.

Accordingly, the Supervisor has the burden of establishing that it is appropriate to implement a fall protection plan which complies with 1926.502(k) for a particular workplace situation, in lieu of implementing any of those systems.

FALL PROTECTION POLICY

Each employee on a walking/working surface six (6) feet (1.8 m) or more above a lower level where leading edges are under construction, but who is not engaged in the leading edge work, shall be protected from falling by a guardrail system, safety net system, or personal fall arrest system.

If a guardrail system is chosen to provide the fall protection, and a controlled access zone has already been established for leading edge work, the control line may be used in lieu of a guardrail along the edge that parallels the leading edge.

A "Fall Protection Plan" option is available only to employees engaged in leading edge work who can demonstrate that it is infeasible or it creates a greater hazard to use conventional fall protection equipment. The fall protection plan must conform to the specifications of 29 CFR Part 1926.502.

HOIST AREAS

Each employee in a hoist area shall be protected from falling six (6) feet (1.8 m) or more to lower levels by guardrail systems or personal fall arrest systems. If guardrail systems, [or chain, gate, or guardrail] or portions thereof, are removed to facilitate the hoisting operation (e.g., during landing of materials), and an employee must lean through the access opening or out over the edge of the access opening (to receive or guide equipment and materials, for example), that employee shall be protected from fall hazards by a personal fall arrest system.

HOLES

Each employee on walking/working surfaces shall be protected from falling through holes (including skylights) more than six (6) feet (1.8 m) above lower levels, by personal fall arrest systems, covers, or guardrail systems erected around such holes.

Each employee on a walking/working surface shall be protected from tripping in or stepping into or through holes (including skylights) by covers.

Each employee on a walking/working surface shall be protected from objects falling through holes (including skylights) by covers.

RAMPS, RUNWAYS, AND OTHER WALKWAYS

Each employee on ramps, runways, and other walkways shall be protected from falling six (6) feet (1.8 m) or more to lower levels by guardrail systems.

FALL PROTECTION POLICY

EXCAVATIONS

Each employee at the edge of an excavation six (6) feet (1.8 m) or more in depth shall be protected from falling by guardrail systems, fences, or barricades when the excavations are not readily seen because of plant growth or other visual barrier.

Each employee at the edge of a well, pit, shaft, and similar excavation six (6) feet (1.8 m) or more in depth shall be protected from falling by guardrail systems, fences, barricades, or covers.

DANGEROUS EQUIPMENT

Each employee less than six (6) feet (1.8 m) above dangerous equipment shall be protected from falling into or onto the dangerous equipment by guardrail systems or by equipment guards.

Each employee six (6) feet (1.8 m) or more above dangerous equipment shall be protected from fall hazards by guardrail systems, personal fall arrest systems, or safety net systems.

WALL OPENINGS

Each employee working on, at, above, or near wall openings (including those with chutes attached) where the outside bottom edge of the wall opening is six (6) feet (1.8 m) or more above lower levels and the inside bottom edge of the wall opening is less than 39 inches (1.0 m) above the walking/working surface, shall be protected from falling by the use of a guardrail system, a safety net system, or a personal fall arrest system.

PROTECTION FROM FALLING OBJECTS

When an employee is exposed to falling objects, each employee is required to wear an ANSI (American National Standards Institute) hard hat and comply with one of the following measures:

- Erect toe boards, screens, or guardrail systems to prevent objects from falling from higher levels; or,
- Erect a canopy structure and keep potential fall objects far enough from the edge of the higher level so that those objects would not go over the edge if they were accidentally displaced; or,
- Barricade the area to which objects could fall, prohibit employees from entering the barricaded area, and keep objects that may fall far enough away from the edge of a higher level so that those objects would not go over the edge if they were accidentally displaced.

FIRE SAFETY AND FLAMMABLE LIQUID POLICY

PURPOSE

This policy has been developed to provide safe work practices and procedures for fire safety and proper use of flammable liquids. This policy complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code as created by the Wisconsin Department of Safety and Professional Services.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy

Department Heads

- Implement this policy

Supervisors

- Ensure policy is followed by employees.
- Ensure all exits are clear from obstructions
- Inspect work place for fire hazards

Employees

- Follow the requirements in this policy

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

No Definitions

DEPARTMENTAL REQUIREMENTS

This policy represents minimum building fire safety requirements and procedures for the use of flammable liquids. Department Heads may develop departmental procedures that are more inclusive of the requirements contained in this policy.

FIRE SAFETY AND FLAMMABLE LIQUID POLICY

TRAINING

All employees will receive instruction in this policy at their time of assignment and whenever this policy is revised. Instructional material on proper fire extinguisher use will be posted in appropriate locations.

Training shall be documented and saved by the individual departments conducting the training.

DOCUMENTATION REQUIREMENTS

Individual departmental procedures should be followed. Documentation of planned fire drills and fire extinguisher inspections must be maintained by scheduling department.

Sign-in sheets of employees that attended the training shall be saved by the individual departments.

FIRE PLANS AND EVACUATION MAPS

Each city facility must have in place an emergency action plan specific to their building. See the City of Madison Emergency Plan for more details. Evacuation maps, showing both primary and secondary exit routes out of the building must be prominently displayed within the building to allow employees and visitors to exit the building quickly in the event of an emergency. Department Heads will be responsible for developing these maps.

EXITS

Exits will not be locked (chained or otherwise) so as to impede proper evacuation. Exits will be marked/illuminated in accordance with state statutes and local ordinances.

STORAGE OF FIRE EQUIPMENT

Fire equipment will be prominently displayed, labeled for usage, and kept clear for easy access at all times.

FIRE EXTINGUISHER USE

Employees are not required to use a fire extinguisher and should exit the work area immediately upon an evacuation notice. Employees may use a fire extinguisher to attempt to extinguish a fire in the incipient stage only (beginning stage of a fire) and should be prepared to exit the area immediately if the fire cannot be extinguished. Report all fire extinguisher use to your Supervisor immediately.

VEHICLE FIRE EXTINGUISHERS

Vehicles and equipment as designated by the Department Head will be equipped with fire extinguishers.

FIRE SAFETY AND FLAMMABLE LIQUID POLICY

REPORTING EQUIPMENT PROBLEMS

If you notice an extinguisher with a low pressure gauge reading or an expired inspection tag, notify your Supervisor immediately.

MONTHLY INSPECTIONS

Department Heads or their designate shall ensure that all fire extinguishers are inspected on a monthly basis and that a tag indicating the date of the inspection is affixed to the unit.

STORAGE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS

Flammable and combustible liquids must be stored in accordance with the Flammable and Combustible Liquids Code as created by the Wisconsin Department of Safety and Professional Services and at the directive of all applicable fire codes. No storage of flammable or combustible liquids will be allowed in furnace or boiler rooms.

USE OF SAFETY CONTAINERS

Flammable or combustible liquids shall be stored in an approved liquid storage cabinet in safety cans. Gasoline must be stored in (Red) safety cans at all times and labeled accordingly. Kerosene (Yellow), Diesel Fuel (Blue), or Fuel Oil (Green) must be stored in safety containers and labeled accordingly.

REFUELING AND FILLING OPERATIONS

The transfer of flammable liquids between to metal containers shall be grounded by the use of a metal bonding strap to prevent the buildup and discharge of static electricity.

Gasoline containers may not be filled on the back of pickup trucks or in the trunks of vehicles and must be placed firmly on the ground during filling operations.

USE OF NON-FLAMMABLE CLEANERS

Never use gasoline or other flammable solvents to clean hands or parts. A non-flammable cleaner will be furnished and must be used.

SMOKING, SPARKS AND OPEN FLAMES

Smoking, sparks and open flames are absolutely prohibited in areas where flammable or combustible liquids are present.

BURNING

Burning must be done in strict compliance with local ordinances. No flammable liquids should be used to start a fire. All burning activities must be approved by your Supervisor.

HOTWORK OPERATIONS

See the City's Hotwork policy (009) for welding, cutting, brazing operation details.

FIRST AID POLICY

PURPOSE

This policy has been developed to specify the conditions under which first aid is provided to employees, who may perform first aid measures, and the procedures to follow when first aid is administered. This policy applies to all employees and complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code as created by the Wisconsin Department of Safety and Professional Services and 29 CFR Part 1910.151 (First Aid) as created by the U.S. Occupational Safety and Health Administration.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy.

Department Heads

- Ensure first aid is available.
- Have available first aid responders (determined by department needs).

Supervisors

- Ensure policy is followed by all employees.
- Replenish first aid supplies.

Responders

- Follow procedures and training requirements in this policy.
- Follow the City's Bloodborne Pathogen Policy.

Employees

- Follow procedures in this policy.
- Report all injuries.

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

(Note: Departmental first responder needs may vary by location, hazard risk assessment, or other factors. Where task or departmental needs requires first responders, these individuals should be identified as such.)

FIRST AID POLICY

DEFINITIONS

No definitions.

DEPARTMENTAL REQUIREMENTS

This policy represents minimum requirements related to first aid activities. Departmental procedures are required to be developed that contain more detailed instructions such as who to contact for medical emergencies and the methods used to contact first aid personnel.

TRAINING

All employees will receive training in this policy at their time of assignment and whenever this policy is revised. Designated first aid responders must be trained and certified by an agency or person authorized to provide first aid training prior to their assignment. Cardiopulmonary Resuscitation (CPR), Cardio-Cerebral Resuscitation (CCR), and Automated External Defibrillator (AED) is a recommended element of first aid training.

All confined space Entrants, Attendants, and Supervisors, as authorized by the City's Confined Spaces Policy, are required to receive first aid and CPR training.

The City's preferred training providers are the Madison Fire Department, American Red Cross and American Heart Association, but departments may use alternative sources such as outside vendors (safety vendors), provided such sources are qualified to perform the training provided. First aid training recertification shall be at intervals specified by the original training provider.

DOCUMENTATION REQUIREMENTS

A listing of all designated first aid responders within each department shall be maintained and copies of past and current training certifications shall be kept on file and be made available.

Sign-in Sheets, documenting who received the training shall be kept in the individual department's files.

DESIGNATION OF FIRST AID RESPONDERS

Department Heads shall designate a sufficient number of first aid responders within their department as determined by departmental needs. Employees may be asked to volunteer for such assignment if they have, or agree to receive the necessary training. In the event a sufficient number of volunteers cannot be obtained, supervisory staff shall be assigned first aid response duties. Appropriate training and certification must take place before employee or supervisor can be specified as a first responder.

FIRST AID POLICY

BLOODBORNE PATHOGENS

Designated first aid responders may come into contact with blood or other potentially infectious materials. As such, first aid responders must be enrolled in their department's Bloodborne Pathogen's Exposure Control Plan which provides for annual training in the methods employees can use to protect themselves from bloodborne pathogens. The program also provides that first aid responders be given the opportunity to receive a vaccine for the Hepatitis B virus. See the Bloodborne Pathogens Policy for more details.

FIRST AID KITS

Each department that is required to provide first aid responders shall provide adequate and appropriate first aid kits and/or supplies. These supply kits shall be inspected on a monthly basis and be replenished as needed.

PROVIDING FIRST AID

First aid shall only be provided by trained and designated first aid responders. (Other forms of providing aid that may be performed by non-trained personnel may include calling for emergency assistance, giving directions, assist in crowd control etc.)

SERIOUS INJURY

In the event of serious injury, request medical help immediately by calling 911. Do not move the injured person unless absolutely necessary. Wait for medical help to arrive.

REPORTING ACCIDENTS, INJURIES, OR ILLNESSES

An Employee Injury Report form is required to be filled out for all job-related injuries, including those "minor" injuries that do not require immediate medical attention and do not result in lost time. This report must be completed and submitted to Risk Management within twenty-four (24) of the injury or illness. Incident forms for non-employee injuries can be found on EmployeeNet.

In spite of the 24-hour form submittal requirement, Risk Management shall be contacted immediately in the following cases:

- Serious Injury
- Injuries requiring hospitalization
- Death
- Loss of Consciousness

GENERAL SAFETY RULES POLICY

PURPOSE

The City of Madison and its departments strive to provide the safest work environment possible for their employees and the public. In order to achieve this, city employees must be aware of the rules and regulations that pertain to their duties. These General Work Rules listed in this section represent the minimum acceptable standards of safety requirements expected of all employees.

These rules are not intended to be all inclusive and additional safety polices may be applicable to your job classification and/or work being performed. Questions regarding these rules or the applicability of other safety policies to your work should be brought to your Supervisor's attention. In the event that a disagreement or conflict arises as to whether or not an unreasonable level of risk is involved with a particular task, employees and supervisors shall attempt to resolve the issue. If there is continued concern with the safety issue, the Department Head or designee should work with the employee and supervisor toward corrective action. The Department Head may wish to contact the Safety Coordinator or Risk Manager to assist to resolve the issue.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy
- Provide assistance to Supervisors

Department Heads

- Ensure that work rules are communicated to employees

Supervisors

- Communicate work rules to employees
- Address safety issues from employees

Employees

- Follow all work rules

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

GENERAL SAFETY RULES POLICY

DEFINITIONS

No Definitions.

DEPARTMENTAL REQUIREMENTS

Individual departments may develop their own internal general work rules which will supplement those contained in this policy. Consult with your Supervisor on department specific work rules.

TRAINING

All employees will receive training on this policy during the time of their assignment and whenever the policy changes or is revised.

DOCUMENTATION REQUIREMENTS

Follow department procedures.

GENERAL WORK RULES

- All employees must report all unsafe conditions, acts or equipment to their Supervisor immediately.
- All injuries, no matter how minor, must be reported to Supervisors immediately.
- Horseplay, wrestling, practical jokes and throwing objects are prohibited.
- Smoking is only allowed in designated areas. Smoking is prohibited at all times when refueling equipment and working around hazardous flammable chemicals.
- Proper clothing must be worn for the specific job and task depending on department.
- Consumption of alcohol and the use of illegal drugs of any kind during working hours is prohibited.
- Adequate lighting shall be provided while work activities are being performed.
- The public will be kept away from all work areas that could expose them to a hazard. Signage, barricades or both shall be utilized to prevent this exposure.
- Work areas shall be kept in a neat and clean manner.
- All floors, aisle ways, work areas and storage spaces shall be kept clean and organized. Objects that could create trip/slip/fall hazards, such as electrical cords, boxes, etc., shall be properly stored and secured. Walkways and hallways shall not be used for storage.
- Any spills on the floor which could cause slip and fall hazards shall be cleaned immediately. When floors become wet from weather conditions, “Wet Floor” signs shall be used to warn employees and the public.
- All tools, equipment and material shall be properly stored after use.
- Oil and grease saturated rags must be disposed of in an approved covered metal container. These containers shall be emptied every night.

- Compressed air shall not be used to clean off an employee's body.
- Compressed air used for cleaning off work surfaces shall be reduced to 30 psi by flow restrictors. Compressed air shall only be used when the proper guarding and personal protective equipment are in place to protect the operator and other employees from flying debris.
- Personal protective equipment shall be inspected for damage and defects prior to each use.
- Tools and equipment shall be inspected for safe operation prior to usage.
- Tools shall only be used for tasks in which they were intended for.
- Defective, unsafe equipment and work practices shall be reported to the Supervisor immediately.
- Tools and equipment shall not be operated if proper training has not been received.
- Misuse and abuse of tools will not be tolerated.
- Do not block or lock exit doors or egress routes.
- Fire extinguishers and eye wash stations shall be inspected monthly.

HAND TOOLS AND EQUIPMENT POLICY

PURPOSE

This policy has been developed to provide safe work practices and procedures for using hand tools and equipment and applies to all tool and equipment use. This policy complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code as created by the Wisconsin Department of Safety and Building Professionals.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy.

Department Heads

- Implement this policy.
- Develop work procedures for tools and equipment used within the department.

Supervisors

- Ensure policy is followed by all employees.

Employees

- Follow requirements contained in this policy.
- Inspect tools before each use.
- Use the right tool for the task that it was intended.

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

No definitions for this policy.

DEPARTMENTAL REQUIREMENTS

This policy represents minimum requirements related to the use of hand tools and equipment and is not meant to be all-inclusive. Department Heads should implement more specific requirements or work procedures for tools and equipment used in their department.

HAND TOOLS AND EQUIPMENT POLICY

TRAINING

All employees whose work duties require the use of hand tools will receive instruction in this policy at their time of assignment and whenever this policy is revised. Employees shall not use tools, equipment and/or machinery for which they have not been trained or they are unfamiliar with.

DOCUMENTATION REQUIREMENTS

Sign-in sheet of employee training.

ELECTRICAL TOOLS

All electrical tools are required to be properly grounded with the use of a 3-way plug and to be properly insulated to prevent electric shock.

CARE AND INSPECTION

Take care of all tools provided to you. Tools shall be kept in good working condition.

Employees are required to select the appropriate tool for the task being performed. Use tools in the manner that they were intended and put them back in their proper storage locations when you have finished working with them.

Inspect each tool for safe operation prior to each use according to the manufacturer's instructions. Preventative maintenance shall be performed on all tools, equipment and machines as recommended by the manufacturer.

Employees who purchase their own personal tools as part of their job functions, they must inspect and use their tools as manufacturer's recommendation. Individual departments should have departmental policies for purchasing, replacement, or reimbursement procedures.

If found to be defective, follow the requirements below.

MAINTENANCE, REPAIR AND MODIFICATIONS

Employees may perform recommended maintenance on tools and equipment provided that they have been trained and authorized to do so and follow all applicable safety requirements, including, but not limited to the City of Madison's Lockout / Tagout Policy.

Repairs are not to be performed by employees unless authorized by supervision. In most cases, repairs will need to be performed by qualified personnel. In no case may tools, equipment or machinery be modified beyond the manufacturer's recommendations.

HAND TOOLS AND EQUIPMENT POLICY

GUARDING

Never operate any tools, equipment or machinery that has defective safety equipment or has the guards removed or disabled. Ensure all guards and safety protective systems are in place and that they are functional before operating the machine, equipment or using a tool.

PERSONAL PROTECTIVE EQUIPMENT

Employees are required to wear all prescribed personal protective equipment when using tools, equipment and/or machinery. Consult the Personal Protective Equipment Policy for detailed requirements.

GRINDERS

When operating a grinder, all guards must be installed and the top (tongue) guard should be adjusted to within one quarter 1/4 inch of the grinding wheel. The tool rest should be adjusted to within one-eighth 1/8 of an inch of the wheel, but no adjustment should be made while the wheel is in motion. Grinding on the flat side of the wheel is prohibited. Out of round wheels should be dressed before use.

HAZARD COMMUNICATION POLICY

PURPOSE

The Hazard Communication Program is designed to eliminate or minimize injuries and illnesses due to chemical exposure. The Written Program contains the policies and procedures used to ensure that the Program meets the requirements of the OSHA standard 29 CFR 1910.1200.

RESPONSIBILITIES

Supervisors

- Maintain the hazardous chemical inventory list
- Keep the list current by an annual review of the inventory list
- Control the purchase and entry of new chemical products to minimize the inventory list
- Ensure that SDSs are readily accessible for the chemicals on the inventory list
- Provide or arrange for training for new employees
- Provide or arrange for training on new chemical hazards
- Compile a list of non-routine tasks that require the use of hazardous chemicals
- Train or retrain employees on the hazards of the chemicals and protective equipment needed during the non-routine tasks
- Ensure that labels are present on containers of hazardous chemicals

DEFINITIONS

- Article - a manufactured item other than a fluid or particle which under normal conditions of use does not release more than minute or trace amounts of a hazardous chemical and does not pose a physical or health risk to employees.

- Chemical - any substance or mixture of substances.

- Container - any bag, barrel, bottle, box, can, cylinder, drum, vessel, tank, or the like that contains a hazardous chemical. In this policy, pipes, piping systems, engines, vehicle fuel tanks, or other operating systems of a vehicle are not considered containers.

- Exposure or exposed - means that an employee is subjected in the course of their employment to a chemical that is a physical or health hazard, and includes potential exposure. Health hazards include those from any route of entry.

- Hazard Category - the division of criteria within each hazard class. These categories compare hazard severity within a hazard class and should not be taken as a comparison of hazard classes more generally.

- Hazard Class - the nature of the physical or health hazards, e.g., flammable or carcinogen.

- Hazardous Chemical - any chemical which is classified as a physical or health hazard, a simple asphyxiant, combustible dust, pyrophoric gas or hazard not otherwise classified.

- Health Hazard - a chemical classified as posing one of the following hazardous effects: acute toxicity, skin corrosion or irritation, serious eye damage or irritation, respiratory or skin sensitization, germ cell mutagenicity, carcinogenicity, reproductive toxicity, specific target organ toxicity or aspiration hazard.

- Immediate Use - means that the hazardous chemical is under the control of the person who transfers it from a labeled container and only within the work shift in which it is transferred.

- Physical Hazard - a chemical classified as posing one of the following hazardous effects: explosive, flammable, self-reactive, pyrophoric, self-heating, organic peroxide, corrosive to metal, gas under pressure, or in contact with water emits a flammable gas.

- Product Identifier - the name or number used for a hazardous chemical on a label or in the SDS. It provides a unique way to identify the chemical. The product identifier shall permit cross-references among the list of hazardous chemicals, the labels, and SDSs.

- Signal Word - word used to indicate the severity of hazard. Danger is for more sever hazards; Warning is for less severe hazards.

WRITTEN HAZARD COMMUNICATION PROGRAM

This written Program describes how the requirements for labels, safety data sheets (SDSs), and training will be met. This written Program is available, upon request, to employees and their designated representatives.

Hazard Determination

The product manufacturer, distributor, or importer is relied upon to complete the hazard determination for the product and the hazardous ingredients and to provide this information on the SDS.

Chemical Inventory

A list of hazardous chemicals is maintained for individual Departments. The list is compiled using the product manufacturer or distributor and the product name as it is used on the SDS. The list(s) are kept online at MSDS Online.

Non-Routine Tasks

A list of non-routine tasks involving hazardous chemicals is developed by each Department. These are tasks that are performed only one to two times per year. Training is provided on the health effects of the hazardous chemicals and the protective equipment needed for doing the task safely.

LABELS

Shipping or Original Container

The chemical manufacturer, distributor, or importer is required to label each container of hazardous chemicals with the following:

- The product identity
- Signal word
- Hazard statement
- Pictogram(s)
- Precautionary statement(s)
- Name, address, and telephone number of the chemical manufacturer, distributor, importer or other responsible party

Chemical manufacturers, distributors, and importers are required to revise the labels within six months of becoming aware of new hazard information.

Labels should remain in good condition. Defacing or removing labels is prohibited.

Workplace Containers

If a hazardous chemical is transferred to another container, this secondary container must be labeled with the following information:

- Product identity
- Words, pictures, symbols or a combination of these that provides, at least, general information on the hazards of the chemical product

A label is not required if the product is transferred to another container and immediately used by the employee who performs the transfer. If the employee does not remain in the area where the container is located, a label is required.

Depending on the circumstances, it can be important to label containers of substances that are not hazardous, e.g. water, to ensure that the contents are known.

Stationary Process Containers

Batch sheets, process sheets, signs, placards, and standard operating procedures may be used in lieu of attaching labels to stationary process containers. These alternatives must contain the required hazard information and must be readily available to employees for the entire work shift.

Pipes and Piping Systems

Labels and color-coding are used to label pipes containing hazardous materials. Pipes that contain hazardous material are painted or labeled at access points and every ten feet where the pipes are eight feet or closer to employee contact.

SAFETY DATA SHEETS

Manufacturers and importers are required to obtain or develop a safety data sheet (SDS) for each hazardous chemical they produce or import. An SDS is required for every hazardous chemical that is used or stored in the workplace. The SDS must be in English; although SDSs may be obtained in other languages.

Content Requirements

The SDS must contain the following information:

Section 1 - Identification
Section 2 - Hazard(s) identification
Section 3 - Composition/information on ingredients
Section 4 - First aid measures
Section 5 - Fire-fighting measures
Section 6 - Accidental release measures
Section 7 - Handling and storage
Section 8 - Exposure controls/personal protection
Section 9 - Physical and chemical properties
Section 10 - Stability and reactivity
Section 11 - Toxicological information
Section 12 - Ecological information
Section 13 - Disposal considerations
Section 14 - Transport information
Section 15 - Regulatory information
Section 16 - Other information, including date of preparation or last revision

Manufacturers, distributors, and importers must add new information regarding the hazards of the chemical within three months of becoming aware of the new information.

SDS Accessibility

SDS must be readily accessible to employees on all work shifts when they are in their work areas. Where employees travel from one site to another, the SDSs are kept at the primary location. In an emergency, the employees can obtain the SDS on MSDS Online.

TRAINING

Training on hazardous chemicals takes place at the time of the employees' initial assignment and whenever a new hazardous chemical is introduced. The training can cover categories of hazards, e.g. flammables or specific chemicals.

Employee Information

The following information is provided:

- The requirements for training.
- Any operations where hazardous chemicals are present.
- Location and availability of the written hazard communication program, the inventory of hazardous chemicals, and the SDSs.

Employee Training

Training includes, at least:

- How to detect the presence or release of a hazardous chemical in the work area.
- Hazards of the chemicals in the work area.
- Protective measures including specific work practices and personal protective equipment.
- Details of the hazard communication program including labeling contents and requirements and SDS information.

CONTRACTORS

Temporary employees or contractors who have the potential for exposure to a hazardous chemical are provided with the following information:

- The hazardous chemical they may encounter
- Measures to reduce or avoid exposure to the hazardous chemical

- Labeling system used on-site
- Where SDSs can be reviewed or obtained

When contractors bring hazardous chemicals on-site where there is a potential for exposure to City employees, the contractor is responsible for providing the information listed above.

CHEMICAL SPILL RESPONSE

Employees are not trained as chemical spill emergency responders. Employees may respond to small incidental spills if they can do so safely. Employees should leave the spill area and call for emergency assistance when:

- The chemical is unknown
- The spill is large enough that additional help from outside the work area is needed
- An employee begins to have symptoms

HEARING CONSERVATION POLICY

PURPOSE

This policy has been established to reduce or eliminate the potential for employees to be adversely affected by occupational noise exposure in excess of regulated limits during the course of their employment. Employees, including temporary help, who are exposed to noise levels at or above 85 decibels averaged over an 8-hour period, will receive a baseline audiogram within six (6) months of initial assignment to determine their current level of hearing. Annual audiograms will then be performed to ensure that the employee's initial, or baseline level of hearing is not being adversely affected by noise generated from occupational exposure. Annual training for noise exposure will be provided to all affected employees. Employees exposed to noise levels at or above the limits specified in Table 1 of this policy are required to wear hearing protection.

This policy complies with Chapter 32 (Public Employee Safety and Health) of the Wisconsin Administrative code as implemented by the Wisconsin Department of Commerce and 29 CFR 1910.95 (Noise Protection) as implemented by the U.S. Occupational Safety and Health Administration.

RESPONSIBILITIES

Safety Coordinator

- Manage and support this policy
- Approve the audiometric testing provider

Department Heads

- Implement this policy
- Coordinate and schedule the audio grams for all affected employees
- Maintain and update noise surveys of the workplace in areas where noise is anticipated to reach 85 decibels

Supervisors

- Ensure policy is followed by all employees

Employees

- Follow requirements contained in this policy

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

HEARING CONSERVATION POLICY

DEFINITIONS

- Affected Employee - an employee who is exposed to noise at or above the limits in Table 1.
- Decibels - a unit of measurement for noise exposure, expressed in dBA.

DEPARTMENTAL REQUIREMENTS

This policy represents minimum hearing protection requirements. Department Heads may develop more specific procedures to be followed in their respective departments.

TRAINING

Employees who are exposed to noise at or above 85 decibels on the OSHA "A" weighted scale and averaged over an 8-hour work shift, will receive annual training in the effects of noise exposure and the steps they can take to prevent hearing loss through the use of monitoring and hearing protection.

DOCUMENTATION REQUIREMENTS

Current noise exposure surveys are required to be maintained for the workplace in each affected department by the Department Head. The Risk Management department will maintain records of employee audiograms and copies of noise exposure monitoring data.

NOISE EXPOSURE MONITORING

Work areas and job classifications will be periodically monitored and assessed to determine if employees are being exposed to noise at or above the limits specified in Table 1. Department Heads will coordinate this monitoring with the Risk Manager. Monitoring does not mean each employee will be individually monitored, as monitoring is only necessary to obtain a representative sample of all employees who perform similar tasks. Subsequently, employees may be asked to wear a sound-measuring device (dosimeter) in order for the City to determine actual noise exposure levels. Employees who are asked to wear such devices must not tamper with the unit or introduce any variables into the measuring process such as hitting the unit with a hammer, etc. since this data will be used to determine when and where hearing protection is required.

Table 1

ALLOWABLE NOISE EXPOSURE LIMITS

Sound Level in dBA	Hours Per Day
85	16
90	8
92	6

Sound Level in dBA	Hours Per Day
95	4
97	3
100	2
102	1.5
105	1
110	0.5
115	0.25 or less

CONTROLS

Engineering (partitions, sound absorbing materials, etc.) and administrative controls will be used whenever feasible to reduce noise exposures in excess of Table 1 values to acceptable limits. The Safety Coordinator, in conjunction with the Department Head, will evaluate the feasibility of implementing such controls.

AUDIOMETRIC TESTING PROGRAM

All affected employees will receive an initial baseline audiogram within six (6) months of being exposed to 85 decibels averaged over an 8-hour work shift. If a mobile test van service is used to perform the audiogram, the time period for testing will be extended to one (1) year as allowed by existing regulations.

All audiometric testing will be performed by a licensed or certified audiologist, otolaryngologist, or other physician or by a technician who is certified by the Council of Accreditation in Occupational Hearing Conservation or who has satisfactorily demonstrated competence in administering audiometric examinations for all hearing tests and shall be provided at no cost to the employee. The use of such outside services shall be approved by the Risk Manager. Employees scheduled for hearing tests will be notified at least twenty-four (24) hours prior to the scheduled test and must make arrangements to ensure their appointment is kept. Employees working outside the hours of 8:00 a.m. to 5:00 p.m. will be scheduled for hearing tests during regular business hours. At least fourteen (14) hours prior to the scheduled hearing test, affected employees must not work with in any environment exceeding 85 decibels unless they are wearing hearing protection as prescribed by this program. All affected employees will be scheduled to receive an annual audiogram each year they remain in the job classification in which they remain affected employees.

STANDARD THRESHOLD SHIFT

The purpose of annual audiometric testing is to determine if a standard hearing threshold shift has occurred which may place the employee at greater risk of hearing loss. A standard threshold shift is a change in hearing threshold relative to the baseline audiogram as determined by a certified audiologist or physician. Employees experiencing a standard threshold shift are required to:

- Be notified of the shift in writing twenty-one (21) days after the determination.
- Be fitted with hearing protection, trained in its use and be required to wear such protection in work areas exceeding 85 decibels.
- Employees already using hearing protection will be refitted with hearing protection having a greater reduction factor (ability to reduce noise) and retrained in the use of such protection.

If annual or follow-up testing indicates a standard threshold shift is not persistent, employees will be informed of the evaluation indicating the standard threshold shift to be temporary. In these cases, the City may discontinue the mandated wearing of hearing protection but only if the employee's noise exposure is less than 90 decibels averaged over an 8-hour work period.

HEARING PROTECTION

A choice of hearing protection will be made available to each affected employee. Employees may choose to wear any type of hearing protection provided by the City so long as the protection selected has the proper reduction factor. Employees will be instructed on how to properly wear the type of hearing protection they select. The wearing of hearing protection is mandatory for:

- Any employee who has experienced a standard threshold shift that is exposed to noise in excess of 85 decibels.
- Any employee exposed to noise in excess of Table 1 values

Hearing protectors are required to have a reduction factor that reduces the employee's noise exposure to 90 decibels or lower when such protection is properly worn by the employee. For employee's experiencing a standard threshold shift, hearing protection reduction shall be sufficient to reduce the employee's noise exposure to 85 decibels or less.

PROPER SELECTION OF HEARING PROTECTION

All hearing protection devices are required to be capable of reducing noise exposures to less than 90 decibels. For employees who have experienced a standard threshold shift, the hearing protection must be capable of reducing the noise to less than 85 decibels. The City will only provide hearing protection devices that have a Noise Reduction Rating (NRR) assigned to the device. This NRR will be used to estimate the effectiveness of the device according to the following formula:

1. Subtract seven (7) from the NRR
2. Divide this value by two (2)
3. Subtract the value from "step 2" above from the 8-hour TWA obtained from monitoring.
   Example: Monitoring shows that a particular work task exposed the employee to 94 decibels on an 8-hour time weighted average. The hearing protection to be used indicates that it has an NRR value of 33.

33 NRR – 7 = 26 NRR
(26 NRR/ 2) = 13
94 decibels – 13 = 81 decibels

The wearing of hearing protection that has a NRR value of 33 in a job that results in a noise exposure of 94 decibels averaged over an 8-hour workday will effectively and safely reduce the employee's exposure to 81 decibels in the example above.

HOT WORK POLICY

PURPOSE

This policy has been developed to establish safety requirements for all welding, cutting, brazing and soldering activities related to maintenance and construction type activities. This policy complies with Chapter 32 (Public Employee Safety and Health) of the Wisconsin Administrative code as promulgated by the Wisconsin Department of Safety and Professional Services and 29 CFR Part 1910.211 through 1910.255 and Part 1926.350 through 1926.354 as promulgated by the U.S. Occupational Safety and Health Administration.

RESPONSIBILITIES

Safety Coordinator

- Manage and support this policy

Department/Division Heads

- Implement this policy

Supervisors

- Ensure that Personal Protective Equipment (PPE) is available and that its use is enforced.
- Safe handling of the cutting or welding equipment and the safe use of the cutting or welding process.
- Determine the combustible materials and hazardous areas present or likely to be present in the work location.
- Have the work moved to a location free from dangerous combustibles.
    - If the work cannot be moved, have the combustibles moved to a safe distance from the work or have the combustibles properly shielded against ignition.
- See that cutting and welding are so scheduled that operations that might expose combustibles to ignition are not started during cutting or welding.
- Secure authorization for the cutting or welding operations from the designated management representative.
- Determine that the cutter or welder secures his approval that conditions are safe before proceeding.
- Determine that fire protection and extinguishing equipment are properly located at the site.
- Ensure fire watches are available at the site where required.

Before cutting or welding is permitted, the area shall be inspected by Supervisor who will designate precautions to be followed in granting authorization to proceed in the form of a written “Hot Work Permit.” Copies of all issued permits will be kept on file by the Supervisor.

HOT WORK POLICY

Advise all contractors about flammable materials or hazardous conditions of which they may not be aware.

Employees

- Follow requirements contained in this policy.

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

- Confined Space - is intended to mean a relatively small or restricted space such as a tank, boiler or pressure vessel. (For more details on confined space see Safety Policy Manual Doc No: 008)

- Hot Work - welding, cutting, brazing, or soldering

DEPARTMENTAL REQUIREMENTS

This policy represents minimum welding, cutting, brazing and soldering requirements. Additional procedures may be developed for departmental use. Consult your Supervisor for more detailed requirements associated with these activities in your department.

TRAINING

Cutters or welders and their Supervisors must be suitably trained in the safe operation of their equipment and the safe use of the process.

DOCUMENTATION REQUIREMENTS

A “Hot Work Permit” must be completed and posted in all areas where welding, cutting, soldering, or brazing activities are performed except for shop and garage areas. See the appendix section of this policy.

APPLICABLE REQUIREMENTS

The requirements contained in this policy represent minimum basic requirements for welding, cutting, brazing and soldering activities. Depending on the type of work to be performed, further requirements may be applicable. Supervisors are to consult 29 CFR Part 1926.350 through 1926.354 for construction related activities and 29 CFR Part 1910.211 through 1910.255 for all other types of activities.

HOT WORK POLICY

Shop and garage areas are work areas in which welding, cutting, brazing, soldering and torch use are typically performed. These areas do not require the use of a "Hot Work Permit" system, although all work must still comply with the remaining requirements of this policy.

BASIC PRECAUTIONS

- If the object to be welded or cut cannot readily be moved, all movable fire hazards in the vicinity shall be taken to a safe place.
- If the object to be welded or cut cannot be moved and if all the fire hazards cannot be removed, then guards shall be used to confine the heat, sparks, and slag, and to protect the immovable fire hazards (e.g., curtains, welding blankets).
- If the requirements stated in above cannot be followed then welding and cutting shall not be performed.

Wherever there are floor openings or cracks in the flooring that cannot be closed, precautions shall be taken so that no readily combustible materials on the floor below will be exposed to sparks, which might drop through the floor. The same precautions shall be observed with regard to cracks or holes in walls, open doorways and open or broken windows.

FIRE SAFETY

- Suitable fire extinguishing equipment shall be maintained in a state of readiness for instant use. Such equipment may consist of pails of water, buckets of sand, hose or portable extinguishers depending upon the nature and quantity of the combustible material exposed.
- Fire watchers shall be required whenever welding or cutting is performed in locations where other than a minor fire might develop.
- Fire watchers shall have fire extinguishing equipment readily available and be trained in its use. They shall be familiar with facilities for sounding an alarm in the event of a fire. They shall watch for fires in all exposed areas, try to extinguish them only when obviously within the capacity of the equipment available, or otherwise sound the alarm.
- A fire watch shall be maintained for at least a half hour after completion of welding or cutting operations to detect and extinguish possible smoldering fires.
- Before cutting or welding is permitted, the area shall be inspected by the individual responsible for authorizing cutting and welding operations. The Supervisor shall designate precautions to be followed in granting authorization to proceed preferably in the form of a written permit.
- Where combustible materials such as paper clippings, wood shavings, or textile fibers are on the floor, the floor shall be swept clean for a radius of 35 feet (10.7 m). Combustible floors shall be kept wet, covered with damp sand, or protected by fire-resistant shields. Where floors have been wet down, personnel operating arc welding or cutting equipment shall be protected from possible shock.
- Cutting or welding shall not be permitted in the following situations:
    - In areas not authorized by management.

  - In sprinklered buildings while such protection is impaired.
  - In the presence of explosive atmospheres (mixtures of flammable gases, vapors, liquids, or dusts with air), or explosive atmospheres that may develop inside uncleaned or improperly prepared tanks or equipment which have previously contained such materials, or that may develop in areas with an accumulation of combustible dusts.
  - In areas near the storage of large quantities of exposed, readily ignitable materials.
- Where practicable, all combustibles shall be relocated at least 35 feet (10.7 m) from the work site. Where relocation is impracticable, combustibles shall be protected with flame proofed covers or otherwise shielded with metal or asbestos guards or curtains.
- Ducts and conveyor systems that might carry sparks to distant combustibles shall be suitably protected or shut down.
- Where cutting or welding is done near walls, partitions, ceilings or roofs of combustible construction, fire-resistant shields or guards shall be provided to prevent ignition.
- If welding is to be done on metal walls, partitions, ceilings or roofs, precautions shall be taken to prevent ignition of combustibles on the other side, due to conduction or radiation, preferably by relocating combustibles. Where combustibles are not relocated, a fire watch on the opposite side from the work shall be provided.
- Welding shall not be attempted on a metal partition, wall, ceiling or roof having a combustible covering nor on walls or partitions of combustible sandwich-type panel construction.
- Cutting or welding on pipes or other metal in contact with combustible walls, partitions, ceilings or roofs shall not be undertaken if the work is close enough to cause ignition by conduction.
- Cutting or welding shall be permitted only in areas that are or have been made fire safe. When work cannot be moved practically, as in most construction work, the area shall be made safe by removing combustibles or protecting combustibles from ignition sources.
- No welding, cutting, or other hot work shall be performed on used drums, barrels, tanks or other containers until they have been cleaned so thoroughly as to make absolutely certain that there are no flammable materials present or any substances such as greases, tars, acids, or other materials which when subjected to heat, might produce flammable or toxic vapors. Any pipe lines or connections to the drum or vessel shall be disconnected or blanked.
- All hollow spaces, cavities or containers shall be vented to permit the escape of air or gases before preheating, cutting or welding. Purging with inert gas is recommended.

CONFINED SPACE

- The City of Madison Confined Space Policy must be followed in addition to the following requirements when working in confined spaces.
- When arc welding is to be suspended for any substantial period of time, such as during lunch or overnight, all electrodes shall be removed from the holders and the holders carefully located so that accidental contact cannot occur and the machine be disconnected from the power source.
- In order to eliminate the possibility of gas escaping through leaks or improperly closed valves, when gas welding or cutting, the torch valves shall be closed and the gas supply to the torch positively shut off at some point outside the confined area whenever the torch is not to be used

for a substantial period of time, such as during lunch hour or overnight. Where practicable, the torch and hose shall also be removed from the confined space.

- Ventilation is a prerequisite to work in confined spaces. For ventilation requirements see 29 CFR 1910.211.
- When welding or cutting is being performed in any confined spaces the gas cylinders and welding machines shall be left on the outside. Before operations are started, heavy portable equipment mounted on wheels shall be securely blocked to prevent accidental movement.
- Where a welder must enter a confined space through a manhole or other small opening, means shall be provided for quickly removing him in case of emergency. When safety belts and lifelines are used for this purpose they shall be so attached to the welder's body that his body cannot be jammed in a small exit opening. An Attendant with a preplanned rescue procedure shall be stationed outside to observe the welder at all times and be capable of putting rescue operations into effect.
- After welding operations are completed, the welder shall mark the hot metal or provide some other means of warning other workers.

PROTECTION OF PERSONNEL

- A welder or helper working on platforms, scaffolds, or runways shall be protected against falling by following the City's Fall Protection Policy.
- Welders shall place welding cable and other equipment so that it is clear of passageways, ladders, and stairways.
- Helmets or hand shields shall be used during all arc welding or arc cutting operations, excluding submerged arc welding. Helpers or Attendants shall be provided with proper eye protection.
- Goggles or other suitable eye protection shall be used during all gas welding or oxygen cutting operations.
- All operators and Attendants of resistance welding or resistance brazing equipment shall use transparent face shields or goggles, depending on the particular job, to protect their faces or eyes, as required.
- Where the work permits, the welder should be enclosed in an individual booth painted with a finish of low reflectivity such as zinc oxide (an important factor for absorbing ultraviolet radiations) and lamp black, or shall be enclosed with noncombustible screens similarly painted. Booths and screens shall permit circulation of air at floor level. Workers or other persons adjacent to the welding areas shall be protected from the rays by noncombustible or flameproof screens or shields or shall be required to wear appropriate goggles.
- All protective equipment, helmets, goggles and protective clothing must meet the requirements contained in 29 CFR 1910.211.

HEALTH PROTECTION AND VENTILATION

The welding and cutting of stainless steel or objects that contain degreasing or cleaning solvents and/or chlorinated hydrocarbon requires special procedures. In addition, materials, including welding rods, that

may contain mercury, cadmium, beryllium, lead, zinc and or fluorine compounds must be worked upon using these special procedures. Supervisors will consult 29 CFR 1910.211 for detailed procedures to be followed before allowing these materials to be worked upon.

APPENDICES

A. Hot Work Permit

APPENDIX A

HOT WORK PERMIT

Date:_____ Name of Person Doing Hot Work (print): _____

Supervisor Name (print):_____ Fire Watch Name (print):_____

Location of Work Being Performed:_____

Description of Work Being Performed:_____

Permit Start Date & Time:_____ Permit End Date & Time: _____

HOT WORK CHECKLIST

Basic Precautions	
Person doing hot work has been properly trained in the safe operation of the equipment	☐ Yes ☐ No
Appropriate PPE is available (Eye protection, helmet, gloves, protective clothing, respirator, etc.)	☐ Yes ☐ No
Equipment is in good condition (Hoses, cords, leads, etc.)	☐ Yes ☐ No
Other on-site contractors are aware of hot work	☐ Yes ☐ No
Warning signs are posted	☐ Yes ☐ No
Lockout/Tagout guidelines are being followed	☐ Yes ☐ No
Requirements Within 35 Feet of Work	
Floors swept clean of combustible materials	☐ Yes ☐ No
Combustible floors are dampened, covered with damp sand, or protected with fire resistant shields	☐ Yes ☐ No
Combustible materials and supplies moved away from hot work	☐ Yes ☐ No
Wall and floor openings have been covered (Windows, etc.)	☐ Yes ☐ No
Fire hazards that can't be moved are protected by appropriate guards	☐ Yes ☐ No
Ducts and conveyor systems that might carry sparks have been protected and shut down where necessary	☐ Yes ☐ No
Combustibles on the other side of ceilings and walls are moved away	☐ Yes ☐ No
Hot Work in Confined Space (if applicable)	
Pipe lines running to confined space have been disconnected or blanked	☐ Yes ☐ No
Confined space has been thoroughly cleaned and ventilated	☐ Yes ☐ No
A confined space permit has been issued	☐ Yes ☐ No
All other confined space guidelines are being followed	☐ Yes ☐ No
Fire Watch	
Fire watch will be provided during and for 30 minutes after work, including any coffee or lunch breaks	☐ Yes ☐ No
Fire watch is equipped with a fire extinguisher and has been trained on the use	☐ Yes ☐ No
Fire watch will check opposite side of walls, above, and below floors and ceilings for remaining sparks or ambers	☐ Yes ☐ No

The above location has been examined, the precautions checked on the Hot Work Checklist have been taken to prevent fire, and permission is authorized for this work.

_____ (PERSON DOING HOT WORK SIGNATURE)

_____ (SUPERVISOR SIGNATURE)

_____ (FIRE WATCH SIGNATURE)

LADDER AND SCAFFOLDING POLICY

PURPOSE

This policy is intended to establish minimum requirements for the care, and use of the common types of ladders, in order to insure safety under normal conditions of usage. This policy applies to use of all ladders and scaffolds.

Construction type activities that require scaffolding shall comply with the requirements of 29 CFR Part 1926.450 to 1926.454 as created by the Occupational Safety and Health Administration (OSHA). This policy complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code as created by the Wisconsin Department of Safety and Building Professionals.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy

Department Heads

- Implement this policy

Supervisor

- Ensure policy is followed by all employees.

Employees

- Follow requirements contained in this policy.

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

- Cleat - means a structural block used at the end of a platform to prevent the platform from slipping off its supports. Cleats are also used to provide footing on sloped surfaces such as crawling boards.
- Competent Person - means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

- Qualified Person - means one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project.

DEPARTMENTAL REQUIREMENTS

This policy represents minimum ladder and scaffold safety requirements. Department Heads may develop specific departmental procedures to address specific ladder and scaffold use activities in their respective departments.

TRAINING

All employees will receive instruction in this policy at their time of assignment and whenever this policy is revised.

DOCUMENTATION REQUIREMENTS

Sign-in sheet for employee training.

GENERAL LADDER REQUIREMENTS

All ladders shall be OSHA approved and bear a label indicating the type of ladder:

- Type I - Industrial stepladder, 3 to 20 feet for heavy duty, such as utilities, contractors, and industrial use.
- Type II - Commercial stepladder, 3 to 12 feet for medium duty, such as painters, offices, and light industrial use.
- Type III - Household stepladder, 3 to 6 feet for light duty, such as light household use.

Metal ladders shall not be used when working around electrical circuits, wires, changing light bulbs, etc.

Never stand on or above the second step from the top of a step ladder or the third rung from the top of a straight ladder.

Ladders shall not be painted and must have approved non-skid feet. Clean muddy or slippery shoes before climbing.

Always check the weight rating of the ladder to be sure the ladder can safely carry your weight plus any load you are carrying. Type II commercial grade ladders are recommended rather than household Type III ladders.

No more than one person should be on a ladder at a time unless the ladder is approved for such use.

LADDER AND SCAFFOLDING POLICY

PORTABLE WOODEN AND FIBERGLASS LADDERS

All wood parts shall be free from sharp edges and splinters; sound and free from accepted visual inspection from shake, wane, compression failures, decay, or other irregularities. Low density wood shall not be used.

Ladders shall be maintained in good condition at all times, the joint between the steps and side rails shall be tight, all hardware and fittings securely attached, and the movable parts shall operate freely without binding or undue play.

Metal bearings of locks, wheels, pulleys, etc., shall be frequently lubricated.

Frayed or badly worn rope shall be replaced.

Safety feet and other auxiliary equipment shall be kept in good condition to insure proper performance.

Ladders shall be inspected frequently and those which have developed defects shall be withdrawn from service for repair or destruction and tagged or marked as "Dangerous, Do Not Use."

Rungs shall be kept free of grease and oil.

Portable rung and cleat ladders shall, where possible, be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is one-quarter of the working length of the ladder (the length along the ladder between the foot and the top support). The ladder shall be placed to prevent slipping, or it shall be tied down, or held in position. Ladders shall not be used in a horizontal position as platforms, runways, or scaffolds;

Ladders for which dimensions are specified shall not be used by more than one person at a time nor with ladder jacks and scaffold planks where use by more than one person is anticipated. In such cases, specially designed ladders with larger dimensions of the parts shall be obtained;

Portable ladders shall be so placed that the side rails have a secure footing. The top rest for portable rung and cleat ladders shall be reasonably rigid and shall have ample strength to support the applied load;

Ladders shall not be placed in front of doors unless the door is blocked, locked, or guarded;

Ladders shall not be placed on boxes, barrels, or other unstable bases to obtain additional height;

Ladders with broken or missing steps, rungs, or cleats, broken side rails, or other faulty equipment shall not be used; improvised repairs shall not be made;

Short ladders shall not be spliced together to provide long sections;

Ladders made by fastening cleats across a single rail shall not be used;

Ladders shall not be used as guys, braces, or skids, or for other than their intended purposes;

Tops of the ordinary types of stepladders shall not be used as steps;

No ladder shall be used to gain access to a roof unless the top of the ladder extends at least 3 feet above the point of support, at eave, gutter, or roofline;

Middle and top sections of sectional or window cleaner's ladders should not be used for bottom section unless the user equips them with safety shoes;

The user should equip all portable rung ladders with non-slip bases when there is a hazard of slipping. Non-slip bases are not intended as a substitute for care in safely placing, tying off, or holding a ladder that is being used upon oily, metal, concrete, or slippery surfaces;

The bracing on the back legs of step ladders is designed solely for increasing stability and not for climbing.

PORTABLE METAL LADDERS

Ladders must be protected against corrosion unless inherently corrosion-resistant.

The spacing of rungs or steps shall be on 12-inch centers.

Rungs and steps shall be corrugated, knurled, dimpled, coated with skid-resistant material, or otherwise treated to minimize the possibility of slipping.

The minimum width between side rails of a straight ladder or any section of an extension ladder shall be 12 inches.

Extension ladders shall be equipped with positive stops which will insure the proper overlap.

The length of a stepladder is measured by the length of the front rail. To be classified as a standard length ladder, the measured length shall be within plus or minus one-half inch of the specified length. Stepladders shall not exceed 20 feet in length.

The bottoms of the four rails are to be supplied with insulating non-slip material for the safety of the user.

LADDER AND SCAFFOLDING POLICY

A metal spreader or locking device of sufficient size and strength to securely hold the front and back sections in the open position shall be a component of each stepladder. The spreader shall have all sharp points or edges covered or removed to protect the user.

To get maximum serviceability, safety, and to eliminate unnecessary damage of equipment, good safe practices in the use and care of ladder equipment must be employed by the users.

Ladders must be maintained in good usable condition at all times.

If a ladder is involved in any of the following, immediate inspection is necessary:

- If ladders tip over, inspect ladder for side rails dents or bends, or excessively dented rungs; check all rung-to-side-rail connections; check hardware connections; check rivets for shear.
- If ladders are exposed to oil and grease, equipment should be cleaned of oil, grease, or slippery materials. This can easily be done with a solvent or steam cleaning.
- Ladders having defects are to be marked and taken out of service until repaired by either maintenance department or the manufacturer.

A simple rule for setting up a ladder at the proper angle is to place the base a distance from the vertical wall equal to one-fourth the working length of the ladder.

Portable ladders are designed as a one-man working ladder based on a 200-pound load.

The ladder base section must be placed with a secure footing.

The top of the ladder must be placed with the two rails supported, unless equipped with a single support attachment.

When ascending or descending, the climber must face the ladder.

Ladders must not be tied or fastened together to provide longer sections. They must be equipped with the hardware fittings necessary if the manufacturer endorses extended uses.

Ladders should not be used as a brace, skid, guy or gin pole, gangway, or for other uses than that for which they were intended, unless specifically recommended for use by the manufacturer.

SCAFFOLDING

All scaffolding shall comply with the requirements specified in 29 CFR Part 1926 Subpart L in addition to the following requirements:

- Erect scaffolding under proper supervision.

- Planks and other material used in building scaffolding must be sound and free from knots (especially cut lumber, commonly referred to as “scaffolding lumber”). Keep planks in good condition with a spar varnish. Never paint the planks.
- Be sure that planking is adequately cleated. Scaffolding over ten (10) feet should have toe boards, mid-rails, and handrails. Follow the City of Madison’s Fall Protection Policy.
- Tools on top of the scaffolding are liable to fall and injure someone. Keep tools in a bucket or box lashed on to the scaffolding.
- Ensure that scaffold wheels (if provided) are locked and that the scaffold is level.

EQUIPMENT INSPECTION

Always check ladders and scaffolding thoroughly before using. A rung, foot, or guard rail could be broken or loose. Use only OSHA approved equipment. Never use make-shift ladders or scaffolding.

Inspect wooden ladders periodically. Wooden ladders shrink over a period of time. In a stepladder, this may cause steps or back bar members to become loose. Hold the rods beneath the steps with a pair of pliers and tighten the nut at the end with a wrench to maintain strength and steadiness.

Do not paint wooden ladders or scaffold planks as defects may be covered by paint.

PLACEMENT AND SECURING OF LADDERS

When using ladders, set them on a firm dry base at the proper angle. The proper angle is a 4:1 ratio, so for every 4 feet the ladder goes vertically, it should go 1 foot horizontally from the base of the object being accessed.

When possible, secure ladders in place with ropes, hooks, spikes, or other anti-slip devices.

Always be careful of the placement of a ladder. Avoid placing ladders within the arc of a swinging door (unless the door is locked), near blind corners, or where they could be in the path of vehicles or equipment. Use signs or barricades to alert others.

LEAD AWARENESS POLICY

PURPOSE

This policy has been developed to ensure that the hazards associated with lead and lead containing materials are minimized or eliminated to protect the safety and health of employees, the public, and the environment. This policy complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code as created by the Wisconsin Department of Safety and Professional Services and 29 CFR Part 1910.1025 (Lead) as created by the U.S. Occupational Safety and Health Administration.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy.
- Conduct exposure monitoring.

Department Heads

- Implement this policy.
- Develop control procedures.

Supervisors

- Ensure policy is adhered to by all employees.

Employees

- Follow policy requirements.

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

- Action Limit - The limit for lead of 30 ug/m3 (micrograms per cubic meter) for which actions are required if employee airborne exposures meet or exceed this value.
- Permissible Exposure Limit (PEL) - Set by OSHA, this is the maximum daily airborne exposure to lead that employees can be exposed to without having to implement engineering controls, personal protective equipment, etc. It is set at 50 ug/m3 (micrograms per cubic meter).
- Time Weighted Average (TWA) - means based on a standard 8-hour workday.

LEAD AWARENESS POLICY

DEPARTMENTAL REQUIREMENTS

This policy represents minimum requirements for any activities involving lead or lead containing materials and/or wastes. Department Heads shall develop specific Lead Control Procedures as specified in this policy for each operation involving an employee's exposure to lead or lead containing materials.

TRAINING

Employees who work with lead or lead containing materials (e.g. paint, etc.) and are exposed to airborne lead concentrations at any level will receive copies of Appendix A and B of the OSHA lead standard. Employees who are exposed to lead above the OSHA action level or for whom the possibility of skin or eye irritation exists will receive training on an annual basis in the topics described in the OSHA lead standard.

DOCUMENTATION REQUIREMENTS

The results of all air monitoring tests will be forwarded to Risk Management. Documentation of training will be kept by the department. (See Respirator Program)

POTENTIAL SOURCES OF LEAD

The following sources may contain lead. This list is not all inclusive:

- Lead bullets, used cartridges and floor sweeping the shooting range.
- Solder
- Painting (spray, hand, scraping, etc.)
- Metals
- Welding Rods
- Batteries
- Sandblasting leaded paint

EXPOSURE ASSESSMENT

Employee lead exposure monitoring shall be conducted to determine the employee's potential to exceed the OSHA lead action level. Identified activities will be monitored to determine actual exposure levels and to help in defining engineering, administrative or personal controls that may be warranted.

Monitoring of every employee potentially exposed to lead is not required provided that the monitoring is representative of the activities performed by employees in the same job classification performing the same duties in regards to lead and lead containing materials.

- Employees will be notified in writing of the monitoring results within five (5) days of the receipt of the results from the laboratory. If the results indicate that the employee is exposed to lead above the PEL of 50 ug/m3 on a TWA (8-hour) basis, then the notification will also include a description of corrective actions that have been or will be taken to reduce exposures.
- No additional monitoring is required if the initial lead exposure monitoring shows that the employee is not exposed at or above the action limit of 30 ug/m3 unless work conditions or materials change. For employees who are exposed above the action limit.
- Monitoring shall be repeated every six (6) months if exposure monitoring results show that the employee is exposed at or above the action limit of 30 ug/m3 but below the PEL of 50 ug/m3 on an 8-hour TWA basis. Monitoring may be discontinued if two (2) consecutive measurements, taken at least seven (7) days apart, are at or below the action level of 30 ug/m3.
- Monitoring shall be repeated every three (3) months if exposure monitoring results show that the employee is at or above the PEL of 50 ug/m3 on an 8-hour TWA. Monitoring must continue at three (3) month intervals until two (2) consecutive measurements, taken at least seven (7) days apart, are below the PEL of 50 ug/m3 .
- Whenever there is a change in equipment, processes, controls or a new type of job is added that involves exposure to lead, additional air monitoring will be required.

LEAD CONTROL PROCEDURES

Department Heads shall develop lead control procedures for any operation in which initial monitoring shows airborne lead exposures at or above the action limit of 30 ug/m3. These procedures shall specify all of the following and include the other pertinent requirements of this policy:

- A description of each operation in which lead is emitted; e.g. machinery used, material processed, controls in place, crew size, employee job responsibilities, operating procedures and maintenance practices.
- A description of the specific means that will be employed to achieve compliance, including engineering plans and studies used to determine methods selected for controlling exposure to lead.
- A report of the technology considered in meeting the permissible exposure limit.
- Air monitoring data which documents the source of lead emissions.
- A detailed schedule for implementation of the program, including documentation such as copies of purchase orders for equipment, construction contracts, etc.

PERSONAL PROTECTIVE EQUIPMENT

If an employee is exposed to lead above the PEL, without regard to the use of respirators or where the possibility of skin or eye irritation exists, the City of Madison will provide at no cost to the employee and assure that the employee uses appropriate protective work clothing and equipment such as, but not limited to:

- Coveralls or similar full-body work clothing.
- Gloves, hats, and shoes or disposable shoe coverlets.
- Face shields, vented goggles, or other appropriate protective equipment.

Personal protective clothing required in the above paragraph will be provided in a clean and dry condition at least weekly, and daily to employees whose exposure levels without regard to a respirator are over 200 ug/m3 of lead as an 8-hour TWA.

Facilities will be provided for the cleaning, laundering, or disposal of protective clothing and equipment.

The Supervisor will repair or replace required protective clothing and equipment as needed to maintain their effectiveness.

Supervisors shall ensure that all protective clothing is removed at the completion of a work shift only in change rooms provided for that purpose.

Supervisors shall ensure that contaminated protective clothing which is to be cleaned, laundered, or disposed of, is placed in a closed container in the change-room which prevents dispersion of lead outside the container.

Department Heads shall inform in writing any person who cleans or launders protective clothing or equipment of the potentially harmful effects of exposure to lead. Such communication shall first be approved by the City Safety Coordinator.

Supervisors shall ensure that containers of contaminated protective clothing and equipment are labeled as follows:

- CAUTION: CLOTHING CONTAMINATED WITH LEAD. DO NOT REMOVE DUST BY BLOWING OR SHAKING. DISPOSE OF LEAD CONTAMINATED WASH WATER IN ACCORDANCE WITH APPLICABLE LOCAL, STATE, OR FEDERAL REGULATIONS.

Procedures shall specify that the removal of lead from protective clothing or equipment by blowing, shaking, or any other means which disperses lead into the air is prohibited.

HOUSEKEEPING

All surfaces shall be maintained as free as practicable of accumulations of lead.

Floors and other surfaces where lead accumulates may not be cleaned by the use of compressed air.

Shoveling, dry or wet sweeping, and brushing may be used only where vacuuming or other equally effective methods have been tried and found not to be effective.

Where vacuuming methods are selected, the vacuums shall be used and emptied in a manner which minimizes the reentry of lead into the workplace. Vacuums must be equipped with a HEPA filter.

HYGIENE FACILITIES AND PRACTICES

Employees who are exposed to lead above the PEL, without regard to the use of respirators, shall not have food or beverage present or consumed, tobacco products present or used, and cosmetics applied, except in change rooms, lunchrooms, and showers.

Employees will be provided with clean change rooms whose work in areas where their airborne exposure to lead is above the PEL, without regard to the use of respirators.

Change rooms must be equipped with separate storage facilities for protective work clothing and equipment and for street clothes which prevent cross-contamination.

Employees who work in areas where their airborne exposure to lead is above the PEL, without regard to the use of respirators, shower at the end of the work shift.

Supervisors shall ensure that employees who are required to shower do not leave the workplace wearing any clothing or equipment worn during the work shift.

Supervisors shall ensure that employees who work in areas where their airborne exposure to lead is above the PEL without regard to the use of a respirator wash their hands and face prior to eating, drinking, smoking or applying cosmetics.

MEDICAL SURVEILLANCE

Employees who are or may be exposed above the action level for more than thirty (30) days per year shall be enrolled in a medical surveillance program to be managed by their Department.

The medical surveillance program shall comply with the requirements of the OSHA lead standard.

RESPIRATOR USE

All respirator use shall comply with the City's respirator policy.

Employees exposed above the PEL of 50 ug/m3 for less than thirty (30) days per year are exempt from the respirator policy to have a medical examination prior to wearing a respirator. These employees are still required to undergo annual respirator fit testing and training.

SIGNS

The employer shall post the following warning signs in each work area where the PEL is exceeded:

- WARNING LEAD WORK AREA POISON NO SMOKING OR EATING

PLAN REVIEW

This plan and all lead control procedures will be reviewed on an annual basis and updated as necessary. The review will be completed on the forms contained in the appendix.

CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT) POLICY

PURPOSE

This policy covers the servicing and maintenance of machines and equipment in which the unexpected energization or startup of the machines or equipment, or release of stored energy could cause injury to employees. It applies to all equipment and sources of hazardous energy, including electrical, pneumatic, hydraulic, gaseous and stored energy. This policy complies with Chapter 32 (Public Employee Safety and Health) of the Wisconsin Administrative code as implemented by the Wisconsin Department of Commerce and 29 CFR Part 1910.147 (Control of Hazardous Energy) as implemented by the U.S. Occupational Safety and Health Administration. The Control of Hazardous Energy Standard is commonly referred to as Lockout / Tagout or LOTO.

SCOPE

Authorized employees who are required to service equipment are covered by this policy. Additionally, affected employees have limited responsibilities under this policy as well. See definitions section.

RESPONSIBILITIES

Safety Coordinator

- Management and support of this policy

Department Heads

- Implementation of this policy
- Perform annual review of the LOTO policy
- Assign authorized employees

Supervisors

- Ensure policy is understood and followed by all employees by locking out equipment before it is serviced
- Manage the issuance of locks
- Performs annual audit of LOTO Program and annual verification that LOTO procedures are accurate

Employees

- Follow requirements contained in this policy

CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT) POLICY

DEFINITIONS

- Lockout / Tagout (LOTO) - in which a lock or tag is affixed to a piece of equipment to secure there is no unexpected startup of the equipment or release of energy. Energy Control Equipment specific procedures that detail the exact steps authorized. Procedure employees are to perform to isolate all sources of energy before servicing the piece of equipment.

- Authorized Employees - Employees who have been specifically authorized by Department Heads to perform maintenance and lockout / tagout of equipment.

- Affected Employees - Employees who may be affected by the lockout of equipment, such as the operator of the equipment that is being worked upon.

DEPARTMENTAL REQUIREMENTS

This policy represents minimum lockout / tagout requirements that must be followed when servicing equipment. Department Heads will develop specific lockout / tagout procedures to be followed for each piece of covered equipment.

TRAINING

Affected Employees

Will be instructed at their time of assignment of the requirements of the LOTO program and the prohibition on attempting to energize or startup any equipment that has been locked / tagged out.

Authorized Employees

Will receive training, as scheduled by the individual department, in the hazards and magnitudes of energy sources and the specific procedures to be followed when servicing equipment.

Retraining shall be provided for all authorized and affected employees whenever there is a change in job assignments, a change in machines, a piece of new equipment or process that presents a new hazards, or when there is a change in the energy control procedure.

DOCUMENTATION

Review Lockout Procedures

Supervisors are required to review their specific department's LOTO procedures at least once a year to ensure that they provide adequate worker protection. As part of the review, the Supervisor will ensure that any deviations and inadequacies identified in the energy-control procedure or its application are corrected.

Periodic Inspections

Periodic inspections are intended to assure that employees are familiar with their responsibilities under the procedure and continue to implement energy-control procedures properly. The inspector must be able to determine the following:

- Employees are following steps in the energy-control procedure;
- Employees involved know their responsibilities under the procedure; and
- The procedure is adequate to provide the necessary protection, and what changes, if any, are needed.

For a lockout procedure, the periodic inspection must include a review of each authorized employee's responsibilities under the energy-control procedure being inspected. Inspections shall be completed at least annually, be maintained on file within the department, and be completed on applicable forms.

EXCEPTIONS

The policy does not apply to servicing and maintenance activities in the following situations, when:

1. Exposure to hazardous energy is controlled completely by unplugging the equipment from an electric outlet and where the employee doing the service or maintenance has exclusive control of the plug. This applies only if electricity is the only form of hazardous energy to which employees may be exposed. This exception encompasses many portable hand tools and some cord and plug connected machinery and equipment.

2. An employee performs hot-tap operations on pressurized pipelines that distribute gas, steam, water, or petroleum products, for which the following can be shown:

    - Continuity of service is essential;
    - Shutdown of the system is impractical; and
    - The employee follows documented procedures and uses special equipment that provides proven, effective employee protection.

METHODS OF ENERGY CONTROL

Lockout (the physical affixing of a padlock) is the primary method employees will use to control hazardous energy. For older equipment that does not have a physical location to affix a lock, tagout may be authorized. All new equipment purchases (except single cord and plug) are required to be capable of being locked out.

CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT) POLICY

LOCKOUT/TAGOUT EQUIPMENT

Supervisors shall ensure that appropriate equipment is provided to employees to use for energy control. The lockout and tagout devices should be standardized in color, shape, and size and in the case of tagout devices, print and format. Tagout devices must include a "Do Not Operate" warning statement and identify the employee who applied the device and the date. All lockout and tagout devices are not to be used for any other purpose than for energy control and must be durable enough to withstand the environment to which they are exposed.

LOCKOUT PROCEDURES

Lockout Procedures are required to be developed and documented for each machine or major piece of equipment for which energy sources are present. It is the responsibility of the Department Heads to ensure Lockout Procedures are created for all new and existing machines or equipment and that these procedures be kept current. Energy sources include any source of **electrical, mechanical, hydraulic, pneumatic, chemical, or thermal energy.** General guidelines or procedures for lock out are as follows:

1. Notify Employees
   - Affected employees shall be notified by the authorized employee of the application of lockout devices. Notification shall be given prior to the controls being applied.

2. Prepare for Shutdown
   - Before an authorized employee turns off a machine or piece of equipment, the authorized employee shall have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the method or means to control the energy. The authorized employee shall obtain and review the Lockout Procedure for the specific machine or equipment prior to performing any lockout procedures.

3. Shutdown
   - The machine or equipment shall be turned off or shutdown using the normal operating controls for the specific machine or piece of equipment.

4. Isolation
   - All energy isolating devices that are necessary to control the energy to the machine or equipment shall be physically located in such a manner as to isolate the machine or equipment from the energy source.

5. Apply Lockout Devices
   - Lockout devices shall be affixed to each energy isolating device by the authorized employee. A tag (not to be confused with tagout) shall also be affixed to the lock with a nylon tie that indicates the name of the authorized person serving the equipment and the date. Lockout

devices shall be affixed in a manner for which it will hold the energy isolating devices in a "safe" or "off" position.

6. Release Stored Energy
   - Following the application of lockout devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained or otherwise rendered safe. Verification or monitoring of each controlled stored energy shall be continued until the servicing or maintenance is completed or until the possibility of such accumulation no longer exists.

7. Verify
   - Prior to starting work on machines or equipment that have been locked out, the authorized employee shall verify that isolation and de-energization of the machine or equipment has been accomplished by testing the normal starting mechanism for the piece of equipment.

8. Perform Work on Equipment
   - The servicing or maintenance on the machine or equipment can now be safely performed.

9. Release from Lockout
   - Before lockout devices are removed and energy is restored to the machine or equipment the work area shall be inspected to ensure that nonessential items have been removed, the equipment and components are operationally intact, and employees have been safely positioned. Lockout devices shall be removed from each energy isolating device by the employee who applied the device. When the authorized employee who applied the lockout device is not available to remove it, procedures for removal of authorized employee lock and tag must be followed. Affected employees shall be notified by the authorized employee of the removal of the lockout device. Notification shall be given after they are removed.

TAGOUT PROCEDURES

If no physical location exists to affix a lock, tagout may be used. Tagout procedures are identical to the lockout procedures above except that:

1. A tag is used instead of a lock and is affixed where a lock would normally be applied.

2. Tagout should only be performed when lockout is not feasible.

LOCKOUT/TAGOUT PROCEDURES DURING TESTING

The following procedure must be followed by each authorized employee when it is necessary to temporarily remove the energy isolating devices and reenergize the machine or equipment to test or position the machine, equipment, or component. General guidelines or procedures for testing are as follows:

1. The work area shall be inspected to ensure that nonessential items have been removed and to ensure that machine or equipment components are operationally intact.

2. The work area shall be checked to ensure that all employees have been safely positioned or removed. After lockout and tagout devices have been removed and before a machine or equipment is started, affected employees shall be notified that the lockout and tagout devices have been removed.

3. The employee who applied the device shall remove each lockout and tagout device from each energy isolating device.

4. Energize and proceed with testing and positioning.

5. Deenergize all systems and reapply energy control measures in accordance with the Lockout/Tagout Procedure to continue or return to the servicing and/or maintenance of that piece of equipment.

GROUP LOCKOUT/TAGOUT

If more than one individual is required to lockout and tagout a machine or piece of equipment, each authorized employee shall place a lock and tag on the energy isolation device to ensure the employees a level of protection equivalent to that provided by the implementation of a personal lockout and tagout device. The Supervisor is designated as the lockout / tagout leader and is responsible for coordinating all lockout activities. If an energy-isolating device cannot accept multiple locks or tags, a multiple lock and tagout device shall be used. (A common gang box or lock box for keys may be used as an alternative.)

The Group Lockout and Tagout will also be utilized when outside contractors are performing lockout / tagout procedures on City owned equipment. Group lockout and tagout will include a lock and tag from the outside contractor performing the work, as well as a City authorized employee if performing work on the equipment.

REMOVAL OF LOCKOUT/TAGOUT DEVICES

Only the employee who applied the device shall remove each lockout and tagout device from each energy isolating device. When the authorized employee who applied the lockout and tagout device is not available, that device may be removed by a designated authorized employee Supervisor only. Prior to the removal of a lock and tag by the Supervisor, the following must be adhered to:

1. Verification must be made by the Supervisor that the authorized employee who applied the lockout and tagout device is not on the premises. A reasonable effort must be made to contact

the authorized employee who applied the device to inform them that their lockout and tagout device has been removed.

2. The Supervisor who has removed an authorized employee's lock and tag should discard the lock and return the tagout device to the Lockout/Tagout Hardware Station and ensure that the authorized employee has knowledge that their lockout or tagout device has been removed prior to returning to work.

OUTSIDE CONTRACTORS

The Supervisor will coordinate the lockout programs of both the City and the contractor with all affected and authorized employees to ensure that contractor lockouts are performed safely and made known.

APPENDICES

A. Equipment Specific Lockout/Tagout Procedure

APPENDIX A

EQUIPMENT SPECIFIC LOCKOUT/TAGOUT PROCEDURE

Name of Equipment:_____ Location:_____

PPE Required:_____

A. Work being performed before the main electrical disconnect on the equipment: refer to the circuit breaker(s) for isolation. Follow LOTO requirements set forth by the Sage LOTO program for each circuit.

Panel Location

Panel	Circuit

B. Work being performed on equipment

Number and Type of Locks Used

1. Prepare for Shutdown
   a. Only authorized employees may use this procedure to shut down, de-energize and lockout this machine.
   b. Authorized employees shall review this procedure before each shut down and use the approved LOTO equipment specified by the LOTO program.
   c. Authorized employees shall identify all sources of hazardous energies and the methods necessary to control them.

Energy Source	Yes	No	Location of Energy Isolating Means	Magnitude of Energy
Electrical				
Hydraulic				
Gas/Water/Steam				
Chemical				

Energy Source	Yes	No	Location of Energy Isolating Means	Magnitude of Energy
Mechanical Motion				
Gravity				
Springs				
Thermal				
Air Under Pressure				
Oil Under Pressure				
Stored Energy				
Other				

2. Notify all Affected Employees

   The authorized employee shall notify affected employees, that power will be shut off, the reason for the shut-down, and that the equipment will be locked/tagged out.

3. Shutdown/Isolate/Lockout/Tagout/Release of Stored Energy/Verify Isolation

Sequence	Lockout/Tagout Procedure
1	
2	
3	
4	
5	Verify that there is no stored air pressure with a pressure gauge or equivalent.

Sequence	Lockout/Tagout Procedure
6	Verify on equipment that there is no electrical energy by using a volt meter.
7	Attempt to start locked out equipment to verify that everything is de-energized.
8	If there is verification that the equipment is de-energized return the operating control to neutral or “off” position after test. Verification of isolation must be continued if there is any chance of re-accumulation.

4. Perform the Service/Maintenance Activity

5. Restart Procedure

Sequence	Procedure
1	Check to make sure that the area and equipment is clear of all people.
2	If more than one employee is involved, all work must be completed before restarting.
3	Check the machine to make sure all tools, materials and items are removed.
4	Check the machine to make sure that all connections are in place.
5	Make sure all safety guards are correctly in place.
6	Remove locks/tags from energy sources.
7	Notify affected employees.
8	Re-energize the equipment.

MATERIAL HANDLING AND LIFTING POLICY

PURPOSE

This policy has been developed to provide safe work practices designed to protect against sprain and strain type injuries during material handling. This policy applies to all material handling activities. Activities that require material handling shall comply with the requirements of 29 CFR Part 1910.176, 1926.250, and 1926.251 as promulgated by the Occupational Safety and Health Administration (OSHA). This policy complies with Chapter 32 (Public Employee Safety and Health) of the Wisconsin Administrative code as promulgated by the Wisconsin Department of Commerce.

RESPONSIBILITIES

Safety Coordinator

- Manage and support this policy.

Department Heads

- Implement this policy.

Supervisors

- Ensure this policy is followed by all employees.

Employees

- Follow the requirements contained in this policy.

TRAINING

All employees will receive instruction in this policy at their time of assignment and whenever this policy is revised.

DOCUMENTATION REQUIREMENTS

None.

SUSPENDED LOADS

Employees shall never work under a suspended load or leave equipment unattended with a suspended load.

MATERIAL HANDLING AND LIFTING POLICY

STACKING MATERIAL

When piling materials, make sure that the base is firm and level. Cross tie each layer. Keep piles level and not stacked too high (use shoulder height as a guideline). Keep aisles clear with adequate space to work in.

Stored materials shall not create hazards such as tripping, fire, explosion, or pest harborage.

LIFTING AND CARRYING

- Do not manually lift any materials that weigh in excess of fifty (50) pounds. If you feel materials are too heavy to lift safely, get another employee to help or use proper handling equipment.
- Size up the load and check overall conditions. Do not attempt to lift alone if it appears too heavy or awkward. Check adequate space for movement and good footing.
- Make certain of good balance. Feet shoulder width apart; one foot beside and the other foot behind the object to be lifted. Stand as close as possible to the object being lifted.
- Bend the knees; do not stoop. Keep the back straight.
- Grip the load with palms of the hand and the fingers. The palm grip is more secure. With grip taken, make certain the back is straight.
- Use the body weight to start the load moving and then lift by pushing up with the legs, as the legs are our strongest set of muscles.
- Keep the arms and elbows close to the body when lifting.
- Do not twist the body. To change directions shift foot position and turn the entire body.
- If the load is to be lowered, bend the knees; do not stoop. To deposit the load on a bench, shelf or table, place it on the edge and push it into position.
- When equipment is available and conditions make it practical, mechanical devices should be used for lifting and carrying. Cranes, hoists, elevators, conveyors, lift trucks and similar units are made for this purpose. (Caution: Certain equipment may require training prior to operation. Discuss training requirements for material handling equipment with your supervisor.)

INCOMPATIBLE MATERIALS

Incompatible materials shall be segregated to prevent accidental contact with each other that may result in fire, explosion or toxic gas emission.

PERSONAL PROTECTION EQUIPMENT POLICY

PURPOSE

This policy has been established to ensure employees are provided with and wear the appropriate personal protective equipment (PPE) so that their potential for injury or illness is minimized. It is our goal to use engineering controls as the primary method for protecting employees. However, when additional protection is necessary, employees will wear PPE. Hearing and respiratory protection are addressed under other City safety policies.

This policy complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code created by the Wisconsin Department of Safety and Professional Services and 29 CFR 1910.132 through 1910.138 created by the U.S. Occupational Safety and Health Administration.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy.
- Assist with specific hazard assessments.

Department Heads

- Implement this policy.
- Complete department specific hazard assessments.

Supervisors

- Ensure employees wear prescribed PPE.
- Provided new and replacement PPE to employees as required.
- Assist with specific hazard assessments.

Employees

- Wear the prescribed PPE per the task.
- Report defective equipment.

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

- PPE - Personal Protective Equipment means hard hats, gloves, glasses, hi viz, etc. Any protective device that an employee can wear that is designed to prevent injury or illness.

PERSONAL PROTECTION EQUIPMENT POLICY

DEPARTMENTAL REQUIREMENTS

This policy represents the minimum requirements associated with personal protective equipment. Departments will establish individual hazard assessments that identify the specific PPE to be used by employees within their department and job assignment. Copies of the hazard assessment shall be maintained by the departments. The City of Madison Safety Coordinator can assist with the development of departmental specific policies.

TRAINING

Each employee required to wear PPE will be trained at the time of their initial assignment in the following:

- When PPE is necessary,
- What PPE is necessary,
- How to properly put on, take off, adjust, and wear PPE,
- The limitations of the PPE; and,
- The proper care, maintenance, useful life and disposal of the PPE.

Each trained employee shall demonstrate an understanding of the training provided, and the ability to use PPE properly, before being allowed to perform work requiring the use of PPE. The Supervisor shall ensure that these training requirements are met. Retraining will be provided when:

- The Supervisor has reason to believe that any employee who has already been trained does not have the understanding and skill provided by the training.
- Changes in the workplace render previous training obsolete.
- Changes in the types of PPE to be used render previous training obsolete.
- Inadequacies are observed in an affected employee's knowledge or use of assigned PPE which indicate that the employee has not retained the requisite understanding or skill.

DOCUMENTATION REQUIREMENTS

Each department is responsible for conducting its own hazard assessment of the workplace. Training documentation must be maintained by the department with the name of each employee trained, the date(s) of training, and the task training is provided for.

GENERAL REQUIREMENTS

- It is the City's intent to provide employees with personal protective equipment essential to safely perform routine operations. Supervisors shall store the latest PPE available to ensure that the PPE provided to employees is not outdated and provides adequate protection to the employee. Such equipment includes, but is not limited to:
    - Eye protection (safety glasses, goggles, etc.)

  - Hand protection (gloves-chemical resistant, cut resistant, etc.)
  - Head protection (hard hats, bump caps, etc.)
  - Face protection (face shield, welding hood, etc.)
  - Foot protection (steel toes, metatarsals, etc.)
- Employees are responsible for using and maintaining personal protective equipment according to established procedures and manufacturer's specifications. When the need for personal protective equipment has been identified, its use will be mandatory as a condition of employment. These rules also apply to all Supervisors in the affected departments.
- Other protective equipment and safety devices are provided in order to protect employees from unnecessary exposures. Such equipment includes:
  - Barricades,
  - Cones,
  - Warning signs,
  - Warning lights; and,
  - Other specialty items
- Failure to use safety devices or personal protective equipment may result in disciplinary action.
- In the event of an injury or illness that results from a failure to use prescribed safety devices or personal protective equipment, Worker's Compensation benefits can be reduced in accordance with Wisconsin Statutes.
- Protective equipment, including personal protective equipment, will be provided, used, and maintained in a sanitary and reliable condition. Protective measures shall be taken whenever process, environmental, chemical, radiological, or mechanical hazards have the capability of causing injury or impairment of the body through absorption, inhalation, or physical contact.
- Defective or damaged PPE will not be used under any circumstance. Employees are to report defective or damaged PPE to their Supervisor immediately.
- All PPE will be designed and constructed according to national consensus standards such as the American National Standards Institute (ANSI) and others.
- Employees are not to perform any task whenever they are unsure of the PPE requirements for the task to be performed. In such cases, employees are to consult with their Supervisor on the PPE requirements before performing any work.

HAZARD ASSESSMENT

Hazard assessments will identify the potential hazards associated with the tasks or job classifications evaluated. A hazard assessment shall be conducted for each departmental job classification, except for office and administrative type activities where employees are not exposed to hazardous work conditions that could cause injury or illness. The Department Head is responsible for ensuring that hazard assessments are completed.

The hazard assessment will serve as the basis for individual departmental PPE requirements. Department Heads may use the information gathered from the hazard assessment to develop specific work practices concerning the use of PPE or may use the hazard assessment itself as a work practice

provided that employees are informed of (and trained in) the conditions under which such PPE is to be worn.

EYE AND FACE PROTECTION

Eye or face protection shall be worn when employees are exposed to hazards such as:

- Flying particles,
- Molten metal,
- Liquid chemicals, acids or caustic liquids,
- Biological hazards and pathogens,
- Chemical gases or vapors; or,
- Potentially harmful light radiation.

Side protection will be indicated and required when there is a hazard from flying objects. Detachable side protectors (e.g., clip-on or slide-on side shields) are acceptable.

Employees who wear prescription lenses while engaged in operations that involve eye hazards must wear eye protection that incorporates the prescription in its design, or wear eye protection that can be worn over the prescription lenses without disturbing the proper position of the prescription lenses or the protective lenses.

Employees required to wear filter lenses for welding, cutting or brazing work will be provided equipment with a shade number appropriate for the work being performed for protection from harmful light radiation.

HEAD PROTECTION

Head protection (e.g., hard hat) shall be provided when working in areas where there is a potential for injury to the head from falling objects or other overhead obstructions.

Bump caps may be appropriate for certain applications when walking into objects pose a potential head hazard.

Appropriate headgear must be designed to reduce electrical shock hazard when the employee is working on or near exposed electrical conductors which could contact the head.

FOOT PROTECTION

Protective footwear shall be provided when working in areas where there is a danger of foot injuries due to:

- Falling or rolling objects,
- Objects piercing the sole,

- Biological hazards and pathogens; and,
- Potential exposure to electrical hazards.

HAND PROTECTION

Hand protection shall be provided when employees' hands are exposed to hazards such as:

- Skin absorption of harmful substances
- Biological hazards and pathogens,
- Severe cuts or lacerations,
- Severe abrasions,
- Punctures,
- Chemical burns; or,
- Thermal burns or temperature extremes.

Supervisors are required to base the selection of the appropriate hand protection on an evaluation of the performance characteristics of the hand protection relative to the task(s) to be performed, conditions present, duration of use, and the hazards and potential hazards identified.

BODY PROTECTION

Body protection shall be provided when employees' bodies are exposed to hazards such as those from the contact and skin absorption of hazardous or harmful chemical substances, including biological hazards and pathogens.

Body protection includes the use of harnesses for fall protection. For more information see the City's Fall Protection Policy.

USE OF PESTICIDES

When exposures to pesticides are present, the proper PPE will be used for the application and conform to the requirements specified on the label of the pesticide used. See the City's Pesticide and Hazard Communication Policies for more information.

ELECTRICAL HAZARDS

Employees who are required to work on or near live electrical installations will be required to wear special PPE to protect them from arc flash hazards and electrocution. This special PPE will be identified in the hazard assessment. See the City's Electrical Safety Policy for more information.

PERSONAL PROTECTION EQUIPMENT POLICY

BIOLOGICAL HAZARDS

If potential exposures to biological hazards and/or pathogens are present, employees who are exposed to such hazards will be required to wear special PPE that will be identified on the hazard assessment and in specific departmental work rules. Required PPE can also be identified in the exposure control plan found in the City's Bloodborne Pathogens Policy.

PERSONAL PROTECTIVE EQUIPMENT COSTS

Department heads will reimburse or pay for personal protective equipment as required by the Wisconsin Department of Safety and Professional Services and City policies when applicable.

POWERED INDUSTRIAL TRUCKS POLICY

PURPOSE

This policy contains safety requirements relating to fire protection, design, maintenance, and use of fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustion engines. This policy does not apply to compressed air or nonflammable compressed gas-operated industrial trucks, nor to farm vehicles, nor to vehicles intended primarily for earth moving or over-the-road hauling.

This policy complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code as created by the Wisconsin Department of Safety and Professional Services and 29 CFR Part 1910.178 (Powered Industrial Trucks) as created by the U.S. Occupational Safety and Health Administration.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy.

Department Heads

- Implement this policy and training requirements.

Supervisors

- Ensure policy is adhered to by all employees.

Employees

- Follow requirements contained in this policy.
- Perform daily inspections of trucks before each use.

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

- Powered Industrial Truck (PIT) - 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.

POWERED INDUSTRIAL TRUCKS POLICY

DEPARTMENTAL REQUIREMENTS

This policy represents minimum powered industrial truck requirements. Department Heads may develop more specific procedures to be followed in their respective departments.

TRAINING

Training and evaluations for powered industrial truck operators must be conducted by an experienced trainer and will be scheduled by the department. Training will include both classroom and hands-on activities. The City of Madison may choose to utilize the services of an outside provider for this service or may elect to perform the training in-house.

All training and evaluations must be completed before an operator is permitted to use a powered industrial truck without continual and close supervision. Training shall cover the following basic topics:

- Operator's knowledge and skill.
- Types of powered industrial trucks the operator will operate in the workplace.
- Hazards present in the workplace.
- Operator's demonstrated ability to operate a powered industrial truck safely.

Trained operators shall be evaluated every three years. During this evaluation, operators must demonstrate competency during a hands on driving demonstration. Operators may be required to undergo additional retraining more frequently if:

- The operator is involved in an accident or a safety action incident.
- The operator has been observed operating the vehicle in an unsafe manner.
- The operator has been determined during an evaluation to need additional training.
- There are changes in the workplace that could affect safe operation of the truck.
- The operator is assigned to operate a different type of truck.

DOCUMENTATION REQUIREMENTS

Sign in sheets, training certifications and evaluations must be kept on file. Pre-operation inspections of the forklift shall be kept on file for three years.

PRE-QUALIFICATIONS FOR POWERED INDUSTRIAL TRUCK OPERATORS

Supervisors shall ensure that all candidates for powered industrial truck operators must meet the following basic requirements prior to starting initial or annual training:

- Must be 18 years of age or older.
- Have a driver's license and good driving record.
- No adverse vision problems that cannot be corrected by glasses or contacts.
- No adverse hearing loss that cannot be corrected with hearing aids.

- No physical impairments that would impair safe operation of the industrial truck.
- Not taking any medication that affects perception, vision, or physical abilities.

The City of Madison reserves the right to terminate or cancel the authority for any employee to operate a powered industrial truck.

GENERAL REQUIREMENTS

Only approved industrial trucks shall be used in hazardous locations. Consult 29 CFR 1910.178 for detailed requirements on truck designations.

Where general lighting is less than 2 lumens per square foot, auxiliary directional lighting shall be provided on the truck.

Concentration levels of carbon monoxide gas created by powered industrial truck operations shall not exceed the levels specified in 29 CFR Part 1910.1000. (Permissible Exposure Limit = 50 ppm)

INSPECTIONS

All powered industrial truck operators shall complete a vehicle pre-operational safety inspection prior to the use of operation, this is mandatory for all shifts.

Inspection records should be turned in to your Supervisor.

Do Not Operate the truck if the inspection fails any of the critical inspection items. Contact your Supervisor immediately of any identified or suspected safety or operability issues that may be associated with the truck.

SAFE OPERATING PROCEDURES

- Only authorized and trained personnel will operate powered industrial trucks.
- The operator will wear seatbelts at all times in industrial trucks that come with seat-belts as standard equipment.
- The operator will perform pre-operational (visual and operational) inspections prior to using the vehicle, this is mandatory for all shifts.
- Any safety defects (such as hydraulic fluid leaks; defective brakes, steering, lights (when mandated), or horn; and/or missing fire extinguisher, seat belt, or back-up alarm) will be reported for immediate repair or the industrial truck will be taken out of service.
- Operators will follow the proper recharging or refueling safety procedures.
- Loads will be tilted back and carried no more than six inches from the ground. Loads that restrict the operator's vision will be transported backwards.

- Powered industrial truck operators will obey posted speed limits and slow down on wet floors and going around turns.
- Operator will sound the horn and use extreme caution when meeting pedestrians, entering and exiting buildings, making turns, and cornering.
- No passengers are allowed to ride on the forklift. Only the operator will ride the fork lift.
- If fork lifts are used as a man lift, an appropriate man lift platform (approved cage with standard rails and toe-boards, anchor point and personal fall equipment) will be used and secured to the vehicle.
- Aisles will be maintained free from obstructions, marked, and wide enough for safe vehicle operation.
- Lift capacity will be marked on all fork trucks. Operators will assure the load does not exceed rated weight limits.
- When unattended, the fork truck or industrial vehicle will be turned off, forks lowered to the ground, and the parking brake applied.
- All powered industrial trucks (with the exception of pallet jacks) will be equipped with a multipurpose dry chemical fire extinguisher.
- Operators must report all accidents, regardless of fault and severity, to their supervisor. Department heads will determine the process for conducting appropriate accident investigation. Risk management must be informed of any worker or public injury, and any property damage from an accident.
- When loading rail cars and trailers, dock plates will be used. Operators will assure dock plates are in good condition and will store them on edge when not in use.
- Rail cars and trailers will be parked squarely to the loading area and have wheels chocked in place. Operators will follow established docking/undocking procedures.

CHANGING AND CHARGING STORAGE BATTERIES

- Battery charging installations must be located in areas designated for that purpose.
- Facilities must be provided for flushing and neutralizing spilled electrolyte, for fire protection, for protecting charging apparatus from damage by trucks, and for adequate ventilation for dispersal of fumes from gassing batteries.
- A conveyor, overhead hoist, or equivalent material handling equipment must be provided for handling batteries.
- Reinstalled batteries must be properly positioned and secured in the truck.
- A carbon filter or siphon must be provided for handling electrolyte.
- When charging batteries, acid must be poured into water. Water must not be poured into acid. Wear appropriate PPE (safety glasses, shield, apron, and rubber gloves during this operation).
- Trucks must be properly positioned and brakes applied before attempting to change or charge batteries.
- Care must be taken to assure that vent caps are functioning. The battery (or compartment) cover(s) must be open to dissipate heat.

- Smoking is prohibited in the charging area.
- Precautions must be taken to prevent open flames, sparks, or electric arcs in battery charging areas.
- Tools and other metallic objects must be kept away from the top of uncovered batteries.

TRUCKS AND RAILROAD CARS

- Check the flooring of trucks, trailers, and railroad cars for breaks and weakness before driving onto them.
- The brakes of highway trucks must be set and wheel chocks placed under the rear wheels to prevent the trucks from rolling while they are boarded with powered industrial trucks unless a dock-locking mechanism is used.
- Wheel stops or other recognized positive protection must be provided to prevent railroad cars from moving during loading or unloading operations.
- Fixed jacks may be necessary to support a semi-trailer and prevent upending during the loading or unloading when the trailer is not coupled to a tractor.
- Positive protection must be provided to prevent railroad cars from being moved while dock boards or bridge plates are in position.

OPERATIONS

- If at any time a powered industrial truck is found to be in need of repair, defective, or in any way unsafe, the truck must be taken out of service until it has been restored to safe operating condition.
- Trucks must not be driven up to anyone standing in front of a bench or other fixed object.
- No person will be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.
- Unauthorized personnel may not ride on powered industrial trucks not designed for multiple riders.
- Arms or legs may not be placed between the uprights of the mast or outside the running lines of the truck.
- When a powered industrial truck is left unattended, load engaging means must be fully lowered, controls neutralized, power shut off, and brakes set. Wheels must be blocked if the truck is parked on an incline.
- A powered industrial truck is unattended when the operator is 25 ft. or more away from the vehicle which remains in their view, or whenever the operator leaves the vehicle and it is not in his view.
- A safe distance must be maintained from the edge of ramps or platforms while on any elevated dock, platform, or freight car. Trucks must not be used for opening or closing freight doors. There must be sufficient headroom under overhead installations, electrical, pipes, sprinkler system, etc.

- An overhead guard must be used as protection against falling objects. An overhead guard is intended to offer protection from the impact of small packages, boxes, bagged material, etc., representative of the job application, but not to withstand the impact of a falling capacity load.
- A load backrest extension must be used whenever necessary to minimize the possibility of the load or part of it from falling rearward.
- Trucks must not be parked so as to block fire aisles, access to stairways, or fire equipment.

TRAVELING

- All traffic regulations must be observed, including authorized speed limits. A safe distance must be maintained, approximately three truck lengths from the truck ahead, and the truck must be kept under control at all times.
- The right of way must be yielded to pedestrians, ambulances, fire trucks, or other vehicles in emergency situations.
- Do not pass other trucks traveling in the same direction at intersections, blind spots, or other dangerous locations.
- 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 must travel with the load trailing.
- Railroad tracks must be crossed diagonally wherever possible. Parking closer than eight feet from the center of railroad tracks is prohibited.
- The driver must look in the direction of and keep a clear view of the path of travel.
- Grades must be ascended and descended slowly. When ascending or descending grades in excess of 10 percent, loaded trucks must be driven with the load upgrade. On all grades, the load and load engaging means must be tilted back if applicable, and raised only as far as necessary to clear the road surface.
- Under all travel conditions the truck must be operated at a speed that will permit it to be brought to a stop in a safe manner.
- Stunt driving and horseplay is prohibited.
- The driver must slow down on wet and slippery floors.
- Dock board or bridge plates must be properly secured before they are driven over. Dock board or bridge plates must be driven over carefully and slowly and their rated capacity never exceeded.
- Avoid running over loose objects on the roadway surface.
- While negotiating turns, reduce speed to a safe level by turning the hand steering wheel in a smooth, sweeping motion. Except when maneuvering at a very low speed, the hand steering wheel must be turned at a moderate, even rate.

POWERED INDUSTRIAL TRUCKS POLICY

LOADING

- Only stable or safely arranged loads can be handled. Exercise caution when handling off-center loads that cannot be centered.
- Only loads within the rated capacity of the truck can be handled.
- Adjust the long or high (including multiple-tiered) loads that may affect capacity.
- Trucks equipped with attachments must be operated as partially loaded trucks when not handling a load.
- A load engaging means must be placed under the load as far as possible. The mast must be carefully tilted backward to stabilize the load.
- Use extreme care when tilting the load forward or backward, particularly when high tiering. Tilting forward with load engaging means elevated is prohibited except to pick up a load. An elevated load may not be tilted forward except when the load is in a deposit position over a rack or stack. When stacking or tiering, use only enough backward tilt to stabilize the load.

FUELING SAFETY

- Fuel tanks may not be filled while the engine is running. Avoid spillage.
- Spillage of oil or fuel must be carefully washed away or completely evaporated and the fuel tank cap replaced before restarting engine.
- No truck can be operated with a leak in the fuel system until the leak has been corrected.
- Do not use open flames for checking electrolyte level in storage batteries or gasoline level in fuel tanks.
- Keep open flames, heat and other sources of ignition away during fueling. No smoking.
- Handle LP tanks with care.
- Make sure the valve on the LP tanks is turned off when removing/replacing LP gas cylinder.
- Place empty LP tanks into proper storage area designated for such cylinders.

MAINTENANCE

- Any power-operated industrial truck not in safe operating condition must be removed from service. All repairs must be made by authorized maintenance personnel.
- Those repairs to the fuel and ignition systems of industrial trucks that involve fire hazards must be conducted only in locations designated for such repairs.
- Trucks in need of repairs to the electrical system must have the battery disconnected before such repairs.
- All parts of any industrial truck requiring replacement must be replaced only by parts equivalent to those used in the original design.
- Industrial trucks must not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer. They also cannot be altered either by the addition of extra parts not provided by the manufacturer or by

the elimination of any parts. Additional counter-weighting of fork trucks must not be done unless approved by the truck manufacturer.

- Industrial trucks must be examined before being placed in service, and must not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination must be made prior to use. Where industrial trucks are used on a round-the-clock basis, they must be examined before each shift. Any defects must be immediately reported and corrected.
- 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 must be removed from service and not returned to service until the cause for such overheating has been eliminated.
- Industrial trucks must be kept in a clean condition, free of lint, excess oil, and grease. Noncombustible agents should be used for cleaning trucks. Low flash point (below 100 degrees F) solvents must not be used. High flash point (at or above 100 degrees F) solvents may be used.

RESPIRABLE CRYSTALLINE SILICA POLICY

PURPOSE

This Respirable Crystalline Silica Program was developed to prevent employee exposure to hazardous levels of Respirable Crystalline Silica that could result through construction activities or nearby construction activities occurring on worksites. Respirable Crystalline Silica exposure at hazardous levels can lead to lung cancer, silicosis, chronic obstructive pulmonary disease, and kidney disease. It is intended to meet the requirements of the Respirable Crystalline Silica Construction Standard (29 CFR 1926.1153) established by the Occupational Safety and Health Administration (OSHA).

All work involving chipping, cutting, drilling, grinding, or similar activities on materials containing Crystalline Silica can lead to the release of respirable-sized particles of Crystalline Silica (i.e. Respirable Crystalline Silica). Crystalline Silica is a basic component of soil, sand, granite and many other minerals. Quartz is the most common form of Crystalline Silica. Many materials found on constructions sites include Crystalline Silica; including but not limited to – cement, concrete, asphalt, pre-formed structures (inlets, pipe, etc.) and others. Consequently, this program has been developed to address and control these potential exposures to prevent our employees from experiencing the effects of occupational illnesses related to Respirable Crystalline Silica exposure.

SCOPE

This Respirable Crystalline Silica Program applies to all employees who have the potential to be exposed to Respirable Crystalline Silica when covered by the OSHA Standard. The OSHA Respirable Crystalline Silica Construction Standard applies to all occupational exposures to Respirable Crystalline Silica in construction work, except where employee exposure will remain below 25 micrograms of Respirable Crystalline Silica per cubic meter of air (25 $\mu g/m^3$) as an 8-hour time-weighted average (TWA) under any foreseeable conditions.

RESPONSIBILITIES

The City of Madison firmly believes protecting the health and safety of our employees is everyone's responsibility. This responsibility begins with upper management providing the necessary support to properly implement this program. However, all levels of the organization assume some level of responsibility for this program including the following positions.

Safety Department

- Conduct job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments in order to determine if an employee's exposure will be above 25 $\mu g/m^3$ as an 8-hour TWA under any foreseeable conditions

- Select and implement into the project's ECP the appropriate control measures in accordance with the Construction Tasks identified in OSHA's Construction Standard Table 1; and potentially including (but not limited to) - a written Exposure Control Plan (ECP), exposure monitoring, Hazard Communication training, medical surveillance, housekeeping and others.

  NOTE: OSHA's Construction Standard Table 1 is a list of 18 common construction tasks along with acceptable exposure control methods and work practices that limit exposure for those tasks.

- Ensure that the materials, tools, equipment, personal protective equipment (PPE), and other resources (such as worker training) required to fully implement and maintain this Respirable Crystalline Silica Program are in place and readily available if needed.

- Ensure that employees are educated in the hazards of Silica exposure and trained to work safely with Silica in accordance with OSHA's Respirable Crystalline Silica Construction Standard and OSHA's Hazard Communication Standard.

- Maintain written records of training (for example, proper use of respirators), ECPs, inspections (for equipment, PPE, and work methods/practices), medical surveillance (under lock and key), respirator medical clearances (under lock and key) and fit-test results.

- Conduct an annual review (or more often if conditions change) of the effectiveness of this program and any active project ECP's that extend beyond a year. This includes a review of available dust control technologies to ensure these are selected and used when practical.

- Coordinate work with other employers and contractors to ensure a safe work environment relative to Silica exposure.

Supervisors

- Assist the Safety Coordinator in conducting job site assessments for Silica containing materials and perform employee Respirable Crystalline Silica hazard assessments in order to determine if an ECP, exposure monitoring, and medical surveillance is necessary.

- Make frequent and regular inspections of job sites, materials, and equipment to implement the written ECP.

- Identify existing and foreseeable Respirable Crystalline Silica hazards in the workplace and take prompt corrective measures to eliminate or minimize them.

- Notify the Safety Coordinator of any deficiencies identified during inspections in order to coordinate and facilitate prompt corrective action.

Employees

- Follow recognized work procedures (such as the Construction Tasks identified in OSHA's Construction Standard Table 1) as established in the project's ECP and this program.
- Use the assigned PPE in an effective and safe manner.
- Participate in Respirable Crystalline Silica exposure monitoring and the medical surveillance program.
- Report any unsafe conditions or acts to the Supervisor or Safety Coordinator.

DEFINITIONS

- Action Level means a concentration of airborne Respirable Crystalline Silica of 25 µg/m^3, calculated as an 8-hour TWA.
- Competent Person means an individual who is capable of identifying existing and foreseeable Respirable Crystalline Silica hazards in the workplace and who has authorization to take prompt corrective measures to eliminate or minimize them.
- Employee Exposure means the exposure to airborne Respirable Crystalline Silica that would occur if the employee were not using a respirator.
- High-Efficiency Particulate Air (HEPA) Filter means a filter that is at least 99.97 percent efficient in removing monodispersed particles of 0.3 micrometers in diameter.
- Objective Data means information, such as air monitoring data from industry-wide surveys or calculations based on the composition of a substance, demonstrating employee exposure to Respirable Crystalline Silica associated with a particular product or material or a specific process, task, or activity. The data must reflect workplace conditions closely resembling or with a higher exposure potential than the processes, types of material, control methods, work practices, and environmental conditions in the employer's current operations.
- Permissible Exposure Limit (PEL) means the employer shall ensure that no employee is exposed to an airborne concentration of Respirable Crystalline Silica in excess of 50 µg/m^3, calculated as an 8-hour TWA.

- Physician or Other Licensed Health Care Professional (PLHCP) means an individual whose legally permitted scope of practice (i.e., license, registration, or certification) allows him or her to independently provide or be delegated the responsibility to provide some or all of the particular health care services required by the Medical Surveillance Section of the OSHA Respirable Crystalline Silica Standard.

- Respirable Crystalline Silica means Quartz, Cristobalite, and/or Tridymite contained in airborne particles that are determined to be respirable by a sampling device designed to meet the characteristics for respirable-particle size- selective samplers specified in the International Organization for Standardization (ISO) 7708:1995: Air Quality-Particle Size Fraction Definitions for Health-Related Sampling.

- Specialist means an American Board Certified Specialist in Pulmonary Disease or an American Board Certified Specialist in Occupational Medicine.

REQUIREMENTS

Specified Exposure Control Methods

When possible and applicable, the City of Madison will conduct activities with potential Silica exposure to be consistent with OSHA's Construction Standard Table 1. Supervisors will ensure each employee under their supervision and engaged in a task identified on OSHA's Construction Standard Table 1 have fully and properly implemented the engineering controls, work practices, and respiratory protection specified for the task on Table 1 (unless the City of Madison has assessed and limited the exposure of the employee to Respirable Crystalline Silica in accordance with the Alternative Exposure Control Methods Section of this program).

The task(s) being performed by the City of Madison identified on OSHA's Construction Standard Table 1 is/are:

Table 1: Specified Exposure Control Methods When Working With Materials Containing Crystalline Silica

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
1	Stationary masonry saws	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
2a	Handheld power saws (any blade diameter) when used outdoors	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
2b	Handheld power saws (any blade diameter) when used indoors or in an enclosed area	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
3	Handheld power saws for cutting fiber-cement board (with blade diameter of 8 inches or less) for tasks performed outdoors only	• Use saw equipped with commercially available dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency.	None	None
4a	Walk-behind saws when used outdoors	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
4b	Walk-behind saws when used indoors or in an enclosed area	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask

RESPIRABLE CRYSTALLINE SILICA POLICY

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
5	Drivable saws for tasks performed outdoors only	• Use saw equipped with integrated water delivery system that continuously feeds water to the blade. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
6	Rig-mounted core saws or drills	• Use tool equipped with integrated water delivery system that supplies water to cutting surface. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
7	Handheld and stand-mounted drills (including impact and rotary hammer drills)	• Use drill equipped with commercially available shroud or cowling with dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. • Use a HEPA-filtered vacuum when cleaning holes.	None	None
8	Dowel drilling rigs for concrete for tasks performed outdoors only	• Use shroud around drill bit with a dust collection system. • Dust collector must have a filter with 99% or greater efficiency and a filter cleaning mechanism. • Use a HEPA-filtered vacuum when cleaning holes.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
9a	Vehicle-mounted drilling rigs for rock and concrete	• Use dust collection system with close capture hood or shroud around drill bit with a low-flow water spray to wet the dust at the discharge point from the dust collector.	None	None
9b	Vehicle-mounted drilling rigs for rock and concrete	• Operate from within an enclosed cab and use water for dust suppression on drill bit.	None	None
10a	Jackhammers and handheld powered chipping tools when used outdoors	• Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask

RESPIRABLE CRYSTALLINE SILICA POLICY

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
10b	Jackhammers and handheld powered chipping tools when used indoors or in an enclosed area	• Use tool with water delivery system that supplies a continuous stream or spray of water at the point of impact.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
10c	Jackhammers and handheld powered chipping tools when used outdoors	• Use tool equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
10d	Jackhammers and handheld powered chipping tools when used indoors or in an enclosed area	• Use tool equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the tool manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
11	Handheld grinders for mortar removal (i.e., tuckpointing)	• Use grinder equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask	Powered Air-Purifying Respirator (PAPR) with P100 Filters
12a	Handheld grinders for uses other than mortar removal for tasks performed outdoors only	• Use grinder equipped with integrated water delivery system that continuously feeds water to the grinding surface. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None

RESPIRABLE CRYSTALLINE SILICA POLICY

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
12b	Handheld grinders for uses other than mortar removal when used outdoors	• Use grinder equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	None	None
12c	Handheld grinders for uses other than mortar removal when used indoors or in an enclosed area	• Use grinder equipped with commercially available shroud and dust collection system. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide 25 cubic feet per minute (cfm) or greater of airflow per inch of wheel diameter and have a filter with 99% or greater efficiency and a cyclonic pre-separator or filter-cleaning mechanism.	None	N95 (or Greater Efficiency) Filtering Facepiece or Half Mask
13a	Walk-behind milling machines and floor grinders	• Use machine equipped with integrated water delivery system that continuously feeds water to the cutting surface. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions.	None	None
13b	Walk-behind milling machines and floor grinders	• Use machine equipped with dust collection system recommended by the manufacturer. • Operate and maintain tool in accordance with manufacturer's instructions to minimize dust emissions. • Dust collector must provide the air flow recommended by the manufacturer, or greater, and have a filter with 99% or greater efficiency and a filter-cleaning mechanism. • When used indoors or in an enclosed area, use a HEPA-filtered vacuum to remove loose dust in between passes.	None	None
14	Small drivable milling machines (less than half-lane)	• Use a machine equipped with supplemental water sprays designed to suppress dust.	None	None

RESPIRABLE CRYSTALLINE SILICA POLICY

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
		• Water must be combined with a surfactant. • Operate and maintain machine to minimize dust emissions.		
15a	Large drivable milling machines (half-lane and larger) for cuts of any depth on asphalt only	• Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. • Operate and maintain machine to minimize dust emissions.	None	None
15b	Large drivable milling machines (half-lane and larger) for cuts of four inches in depth or less on any substrate	• Use machine equipped with exhaust ventilation on drum enclosure and supplemental water sprays designed to suppress dust. • Operate and maintain machine to minimize dust emissions.	None	None
15c	Large drivable milling machines (half-lane and larger) for cuts of four inches in depth or less on any substrate	• Use a machine equipped with supplemental water spray designed to suppress dust. • Water must be combined with a surfactant. • Operate and maintain machine to minimize dust emissions.	None	None
16	Crushing machines	• Use equipment designed to deliver water spray or mist for dust suppression at crusher and other points where dust is generated (e.g., hoppers, conveyers, sieves/sizing or vibrating components, and discharge points). • Operate and maintain machine in accordance with manufacturer's instructions to minimize dust emissions. • Use a ventilated booth that provides fresh, climate-controlled air to the operator, or a remote control station.	None	None
17a	Heavy equipment and utility vehicles used to abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	• Operate equipment from within an enclosed cab.	None	None
17b	Heavy equipment and utility vehicles used to	• When employees outside of the cab are engaged in the task, apply water and/or dust	None	None

Construction Task or Equipment Operation		Engineering and Work Practice Control Methods	Required Respiratory Protection	
			≤ 4 hours/shift	>4 hours/shift
	abrade or fracture silica-containing materials (e.g., hoe-ramming, rock ripping) or used during demolition activities involving silica-containing materials	suppressants as necessary to minimize dust emissions.		
18a	Heavy equipment and utility vehicles for tasks such as grading and excavating but not including demolishing, abrading, or fracturing silica-containing materials	• Apply water and/or dust suppressants as necessary to minimize dust emissions.	None	None
18b	Heavy equipment and utility vehicles for tasks such as grading and excavating but not including demolishing, abrading, or fracturing silica-containing materials	• When the equipment operator is the only employee engaged in the task, operate equipment from within an enclosed cab.	None	None

When implementing the control measures specified in Table 1, the City of Madison shall:

- For tasks performed indoors or in enclosed areas, provide a means of exhaust as needed to minimize the accumulation of visible airborne dust;
- For tasks performed using wet methods, apply water at flow rates sufficient to minimize release of visible dust;
- For measures implemented that include an enclosed cab or booth, ensure that the enclosed cab or booth:
    - Is maintained as free as practicable from settled dust;
    - Has door seals and closing mechanisms that work properly;

- Has gaskets and seals that are in good condition and working properly;
- Is under positive pressure maintained through continuous delivery of fresh air;
- Has intake air that is filtered through a filter that is 95% efficient in the 0.3-10.0 µm range (e.g., MERV-16 or better); and
- Has heating and cooling capabilities.

- Where an employee performs more than one task included on OSHA's Construction Standard Table 1 during the course of a shift, and the total duration of all tasks combined is more than four hours, the required respiratory protection for each task is the respiratory protection specified for more than four hours per shift. If the total duration of all tasks on Table 1 combined is less than four hours, the required respiratory protection for each task is the respiratory protection specified for less than four hours per shift.

Alternative Exposure Control Methods

Alternative Exposure Control Methods apply for tasks not listed in OSHA's Construction Standard Table 1, or where the City of Madison cannot fully and properly implement the engineering controls, work practices, and respiratory protection described in Table 1.

First, the City of Madison will assess the exposure of each employee who is or may reasonably be expected to be exposed to Respirable Crystalline Silica at or above the Action Level in accordance with either the Performance Option or the Scheduled Monitoring Option.

- **Performance Option** – the City of Madison will assess the 8-hour TWA exposure for each employee on the basis of any combination of air monitoring data or objective data sufficient to accurately characterize employee exposures to Respirable Crystalline Silica.

- **Scheduled Monitoring Option:**
  - The City of Madison will perform initial monitoring to assess the 8-hour TWA exposure for each employee on the basis of one or more personal breathing zone air samples that reflect the exposures of employees on each shift, for each job classification, and in each work area. Where several employees perform the same tasks on the same shift and in the same work area, the City of Madison will plan to monitor a representative fraction of these employees. When using representative monitoring, the City of Madison will sample the employee(s) who are expected to have the highest exposure to Respirable Crystalline Silica.

- If initial monitoring indicates that employee exposures are below the Action Level, the City of Madison will probably discontinue monitoring for those employees whose exposures are represented by such monitoring.

- Where the most recent exposure monitoring indicates that employee exposures are at or above the Action Level but at or below the PEL, the City of Madison will repeat such monitoring within six months of the most recent monitoring.

- Where the most recent exposure monitoring indicates that employee exposures are above the PEL, the City of Madison will repeat such monitoring within three months of the most recent monitoring.

- Where the most recent (non-initial) exposure monitoring indicates that employee exposures are below the Action Level, the City of Madison will repeat such monitoring within six months of the most recent monitoring until two consecutive measurements, taken seven or more days apart, are below the Action Level, at which time the City of Madison will probably discontinue monitoring for those employees whose exposures are represented by such monitoring, except when a reassessment is required. The City of Madison will reassess exposures whenever a change in the production, process, control equipment, personnel, or work practices may reasonably be expected to result in new or additional exposures at or above the Action Level, or when the City of Madison has any reason to believe that new or additional exposures at or above the Action Level have occurred.

The City of Madison will ensure that all Respirable Crystalline Silica samples taken to satisfy the monitoring requirements of this program and OSHA are collected by a qualified individual (i.e. a Certified Industrial Hygienist) and the samples are evaluated by a qualified laboratory.

Within five working days after completing an exposure assessment, the City of Madison will individually notify each affected employee in writing of the results of that assessment or post the results in an appropriate location accessible to all affected employees.

Whenever an exposure assessment indicates that employee exposure is above the PEL, the City of Madison will describe in the written notification the corrective action being taken to reduce employee exposure to or below the PEL.

Where air monitoring is performed, the City of Madison will provide affected employees or their designated representatives an opportunity to observe any monitoring of employee exposure to Respirable Crystalline Silica. When observation of monitoring requires entry into an area where the use of protective clothing or equipment is required for any workplace hazard, the City of Madison will provide the observer with protective clothing and equipment at no cost and shall ensure that the observer uses such clothing and equipment.

Once air monitoring has been performed, the City of Madison will determine its method of compliance based on the monitoring data and the hierarchy of controls. The City of Madison will use engineering and work practice controls to reduce and maintain employee exposure to Respirable Crystalline Silica to or below the PEL, unless the City of Madison can demonstrate that such controls are not feasible. Wherever such feasible engineering and work practice controls are not sufficient to reduce employee exposure to or below the PEL, the City of Madison will nonetheless use them to reduce employee exposure to the lowest feasible level and shall supplement them with the use of respiratory protection.

In addition to the requirements of this program, the City of Madison will comply with other programs and OSHA standards (such as 29 CFR 1926.57 [Ventilation]), when applicable where abrasive blasting is conducted using Crystalline Silica-containing blasting agents, or where abrasive blasting is conducted on substrates that contain Crystalline Silica.

Control Methods

The City of Madison will provide control methods that are either consistent with Table 1 or otherwise minimize worker exposures to Silica. These exposure control methods can include engineering controls, work practices, and respiratory protection.

Respiratory Protection

Where respiratory protection is required by this program, the City of Madison will provide each employee an appropriate respirator that complies with the requirements of the company's Respiratory Protection Program and the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Respiratory protection is required where specified by the OSHA Construction Standard Table 1, for tasks not listed in Table 1, or where the company has not fully and properly implemented the engineering controls, work practices, and respiratory protection described in Table 1. Situations requiring respiratory protection include:

- Where exposures exceed the PEL during periods necessary to install or implement feasible engineering and work practice controls;
- Where exposures exceed the PEL during tasks, such as certain maintenance and repair tasks, for which engineering and work practice controls are not feasible; and
- During tasks for which an employer has implemented all feasible engineering and work practice controls and such controls are not sufficient to reduce exposures to or below the PEL.

Housekeeping

RESPIRABLE CRYSTALLINE SILICA POLICY

The City of Madison does not allow dry sweeping or dry brushing where such activity could contribute to employee exposure to Respirable Crystalline Silica unless wet sweeping, HEPA-filtered vacuuming, or other methods that minimize the likelihood of exposure are not feasible.

The City of Madison does not allow compressed air to be used to clean clothing or surfaces where such activity could contribute to employee exposure to Respirable Crystalline Silica unless:

- The compressed air is used in conjunction with a ventilation system that effectively captures the dust cloud created by the compressed air; or
- No alternative method is feasible.

Written Exposure Control Plan

When employee exposure on a construction project is expected to be at or above the Action Level, a Written Exposure Control Plan (ECP) will be established and implemented. This ECP will contain at least the following elements:

- A description of the tasks in the workplace that involve exposure to Respirable Crystalline Silica;
- A description of the engineering controls, work practices, and respiratory protection used to limit employee exposure to Respirable Crystalline Silica for each task;
- A description of the housekeeping measures used to limit employee exposure to Respirable Crystalline Silica; and
- A description of the procedures used to restrict access to work areas, when necessary, to minimize the number of employees exposed to Respirable Crystalline Silica and their level of exposure, including exposures generated by other employers or sole proprietors.

The written ECP will designate a Competent Person to make frequent and regular inspections of job sites, materials, and equipment to ensure the ECP is implemented.

The written ECP will be reviewed at least annually to evaluate the effectiveness of it and update it as necessary. Having said this, ECP's are project specific and most project durations do not exceed a year. The written ECP will be readily available for examination and copying, upon request, to each employee covered by this program and/or ECP, their designated representatives, and OSHA.

Medical Surveillance

Medical surveillance will be made available for each employee who will be required to use a respirator for 30 or more days per year due to their Respirable Crystalline Silica exposure. Medical surveillance

(i.e. medical examinations and procedures) will be performed by a PLHCP and provided at no cost to the employee at a reasonable time and place.

The City of Madison will make available an initial (baseline) medical examination within 30 days after initial assignment, unless the employee has received a medical examination that meets the requirements of the OSHA Respirable Crystalline Silica Construction Standard within the last three years. The examination shall consist of:

- A medical and work history, with emphasis on past, present, and anticipated exposure to Respirable Crystalline Silica, dust, and other agents affecting the respiratory system in addition to any history of respiratory system dysfunction, including signs and symptoms of respiratory disease (e.g., shortness of breath, cough, wheezing), history of tuberculosis, and smoking status and history;

- A physical examination with special emphasis on the respiratory system;

- A chest X-ray (a single postero-anterior radiographic projection or radiograph of the chest at full inspiration recorded on either film [no less than 14 x 17 inches and no more than 16 x 17 inches] or digital radiography systems) interpreted and classified according to the International Labour Office (ILO) International Classification of Radiographs of Pneumoconiosis by a NIOSH-certified B Reader;

- A pulmonary function test to include forced vital capacity (FVC) and forced expiratory volume in one second (FEV1) and FEV1/FVC ratio, administered by a spirometry technician with a current certificate from a NIOSH-approved spirometry course;

- Testing for latent tuberculosis infection; and

- Any other tests deemed appropriate by the PLHCP.

The City of Madison will make available medical examinations that include the aforementioned procedures (except testing for latent tuberculosis infection) at least every three years. If recommended by the PLHCP, periodic examinations can be more frequently than every three years.

The City of Madison will ensure that the examining PLHCP has a copy of the OSHA Respirable Crystalline Silica Construction Standard, this program, and the following information:

- A description of the employee's former, current, and anticipated duties as they relate to the employee's occupational exposure to Respirable Crystalline Silica;

- The employee's former, current, and anticipated levels of occupational exposure to Respirable Crystalline Silica;

- A description of any personal protective equipment (PPE) used or to be used by the employee, including when and for how long the employee has used or will use that equipment; and

- Information from records of employment-related medical examinations previously provided to the employee and currently within the control of the City of Madison.

The City of Madison will ensure that the PLHCP explains to the employee the results of the medical examination and provides each employee with a written medical report within 30 days of each medical examination performed. The written report shall contain:

- A statement indicating the results of the medical examination, including any medical condition(s) that would place the employee at increased risk of material impairment to health from exposure to Respirable Crystalline Silica and any medical conditions that require further evaluation or treatment;

- Any recommended limitations on the employee's use of respirators;

- Any recommended limitations on the employee's exposure to Respirable Crystalline Silica; and;

- A statement that the employee should be examined by a Specialist if the chest X-ray is classified as 1/0 or higher by the B Reader, or if referral to a Specialist is otherwise deemed appropriate by the PLHCP.

The City of Madison will also obtain a written medical opinion from the PLHCP within 30 days of the medical examination. The written opinion shall contain only the following in order to protect the employee’s privacy:

- The date of the examination;

- A statement that the examination has met the requirements of the OSHA Respirable Crystalline Silica Construction Standard; and

- Any recommended limitations on the employee's use of respirators.

If the employee provides written authorization, the written opinion shall also contain either or both of the following:

- Any recommended limitations on the employee's exposure to Respirable Crystalline Silica; and/or

- A statement that the employee should be examined by a Specialist if the chest X-ray is classified as 1/0 or higher by the B Reader, or if referral to a Specialist is otherwise deemed appropriate by the PLHCP.

If the PLHCP's written medical opinion indicates that an employee should be examined by a Specialist, the City of Madison will make available a medical examination by a Specialist within 30 days after receiving the PLHCP's written opinion. The City of Madison will ensure that the examining Specialist is provided with all of the information that the employer is obligated to provide to the PLHCP.

The City of Madison will ensure that the Specialist explains to the employee the results of the medical examination and provides each employee with a written medical report within 30 days of the examination. The written report will contain:

- A statement indicating the results of the medical examination, including any medical condition(s) that would place the employee at increased risk of material impairment to health from exposure to Respirable Crystalline Silica and any medical conditions that require further evaluation or treatment;

- Any recommended limitations on the employee's use of respirators; and

- Any recommended limitations on the employee's exposure to respirable crystalline Silica.

In addition, the City of Madison will obtain a written opinion from the Specialist within 30 days of the medical examination. The written opinion shall contain the following:

- The date of the examination;

- Any recommended limitations on the employee's use of respirators; and

- If the employee provides written authorization, the written opinion shall also contain any recommended limitations on the employee's exposure to Respirable Crystalline Silica.

Hazard Communication

The City of Madison will include Respirable Crystalline Silica in the company’s Hazard Communication Program established to comply with the OSHA Hazard Communication Standard (29 CFR 1910.1200).

All employees will be trained in accordance with the provisions of the OSHA Hazard Communication Standard and the Training Section of this program. This training will cover concerns relating to cancer, lung effects, immune system effects, and kidney effects.

RESPIRABLE CRYSTALLINE SILICA POLICY

The City of Madison will ensure that each employee with the potential to be exposed at or above the Action Level for Respirable Crystalline Silica can demonstrate knowledge and understanding of at least the following:

- The health hazards associated with exposure to Respirable Crystalline Silica;
- Specific tasks in the workplace that could result in exposure to Respirable Crystalline Silica;
- Specific measures the City of Madison has implemented to protect employees from exposure to Respirable Crystalline Silica, including engineering controls, work practices, and respirators to be used;
- The contents of the OSHA Respirable Crystalline Silica Construction Standard;
- The identity of the Competent Person designated by the City of Madison; and
- The purpose and a description of the company's Medical Surveillance Program.

The City of Madison will make a copy of the OSHA Respirable Crystalline Silica Construction Standard readily available without cost to any employee who requests it.

Recordkeeping

The City of Madison will make and maintain an accurate record of all exposure measurements taken to assess employee exposure to Respirable Crystalline Silica. This record will include at least the following information:

- The date of measurement for each sample taken;
- The task monitored;
- Sampling and analytical methods used;
- Number, duration, and results of samples taken;
- Identity of the laboratory that performed the analysis;
- Type of personal protective equipment (PPE), such as respirators, worn by the employees monitored; and

- Name, social security number, and job classification of all employees represented by the monitoring, indicating which employees were actually monitored.

The City of Madison will ensure that exposure records are maintained and made available in accordance with 29 CFR 1910.1020. Exposure records will be kept for at least 30 years.

The employer shall make and maintain an accurate record of all objective data relied upon to comply with the requirements of the OSHA Respirable Crystalline Silica Construction Standard. This record shall include at least the following information:

- The Crystalline Silica-containing material in question;
- The source of the objective data;
- The testing protocol and results of testing;
- A description of the process, task, or activity on which the objective data were based; and
- Other data relevant to the process, task, activity, material, or exposures on which the objective data were based.

The City of Madison will ensure that objective data are maintained and made available in accordance with 29 CFR 1910.1020. Objective data records will be kept for at least 30 years.

The City of Madison will make and maintain an accurate record for each employee enrolled in the Medical Surveillance portion of this program. The record shall include the following information about the employee:

- Name and social security number;
- A copy of the PLHCPs' and/or Specialists' written medical opinions; and
- A copy of the information provided to the PLHCPs and Specialists.

The City of Madison will ensure that medical records are maintained and made available in accordance with 29 CFR 1910.1020. Medical records will be kept under lock and key for at least the duration of employment plus 30 years. It is necessary to keep these records for extended periods because Silica-related diseases such as cancer often cannot be detected until several decades after exposure. However, if an employee works for an employer for less than one year, the employer does not have to keep the medical records after employment ends, as long as the employer gives those records to the employee.

PROGRAM EVALUATION

This program will be reviewed and evaluated on an annual basis by the Safety Department unless changes to operations, the OSHA Respirable Crystalline Silica Construction Standard (29 CFR 1926.1153), or another applicable OSHA Standard require an immediate re-validation of this program.

APPLICABLE FORMS

The following lists applicable forms relating to this program.

RESPIRATORY PROTECTION POLICY

PURPOSE

The City of Madison has developed the following respiratory protection program to protect the health and safety of City employees who are exposed to respiratory hazards. This policy applies to all employees who use a respirator, except for respirators that are used to protect against biological hazards. The applicability of a particular requirement is dependent on the type of respirator used and the conditions under which it is worn. This policy complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code created by the Wisconsin Department of Safety and Professional Services and 29 CFR 1910.134 (Respiratory Protection) created by the U.S. Occupational Safety and Health Administration.

RESPONSIBILITIES

Safety Coordinator

- Administers and oversees the following aspects of the respiratory protection program:
  - Assists with the selection of respiratory protection options.
  - Approves all tasks that require respirator use (voluntary or otherwise).
  - Monitors respirator use to ensure that respirators are used in accordance with their certifications.
  - Arranges and/or conducts training.
  - Arranges and/or conducts exposure monitoring.
  - Arranges or conducts qualitative respirator fit testing.
  - Maintaining records required by the program.
  - Provides OSHA respirator information to voluntary wearers.
  - Annually evaluates the program.

Department Heads

- Implements and enforces policy.
- Coordinates with Safety Coordinator.

Supervisors

- Designated as the Program Administrator.
- Administers the medical surveillance program.
- Identifies work areas, processes or tasks that require workers to wear respirators.
- Ensures that employees under their supervision (including new hires) have received appropriate training, fit testing, and medical evaluation.
- Ensures the availability of appropriate respirators and accessories.
- Aware of tasks requiring the use of respiratory protection.
- Enforces the proper use of respiratory protection when necessary.

- Ensures that respirators are properly cleaned, maintained, and stored according to the respiratory protection plan.
- Continually monitors work areas and operations to identify respiratory hazards.

Employees

- Each employee has the responsibility to wear his or her respirator when and where required and in the manner in which they were trained and to:
    - Care for and maintain their respirators as instructed, and store them in a clean sanitary location.
    - Clean their respirator at the end of each use.
    - Change their respirator or respirator cartridge according to the change out schedule.
    - Able to get a face-to-mask seal when required to wear a respirator.
    - Inform their Supervisor if the respirator no longer fits well, and request a new one that fits properly.
    - Inform their Supervisor or Risk Management/Safety Coordinator of any respiratory hazards that they feel are not adequately addressed in the workplace and of any other concerns that they have regarding the program.

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

- Fit Test - means the use of a protocol qualitatively or quantitatively evaluate the fit of a respirator on an individual.
- High Efficiency Particulate Air (HEPA) Filter - means a filter that is at least 99.97% efficient in removing monodisperse particles of 0.3 micrometers in diameter. The equivalent NIOSH 42 CFR 84 particulate filters are the N100, R100, and P100 filters.
- Respirators - are defined as any device used to prevent or minimize the inhalation of toxic, hazardous, or nuisance air contaminants, including the use (voluntary or otherwise) of particulate air filters commonly referred to as "dust masks".
- Tight-Fitting Facepiece - means a respiratory inlet covering that forms a complete seal with the face.
- Voluntary Use - is defined as the use of a filtering facepiece, such as the use of a dust mask, in situations where the employee is not exposed to regulated contaminants above the OSHA Permissible Limit.

RESPIRATORY PROTECTION POLICY

DEPARTMENTAL REQUIREMENTS

This policy represents the minimum requirements associated with respiratory protection. Department Heads may develop more specific procedures to be followed in their respective departments.

TRAINING

Each employee required to wear a respirator, or an employee who has received approval from their Supervisor to wear a voluntary respirator other than a filtering facepiece (dust mask), will receive training at the time of their initial assignment and annually thereafter in the following topics:

- Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator;
- What the limitations and capabilities of the respirator are;
- How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;
- How to inspect, put on and remove, use, and check the seals of the respirator;
- What the procedures are for maintenance and storage of the respirator;
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and
- The general requirements of this policy.
- Requirements contained in departmental specific written work practices.

Retraining will be provided annually, and whenever the following situations occur:

- Changes in the workplace or the type of respirator render previous training obsolete;
- Inadequacies in the employee's knowledge or use of the respirator indicate that the employee has not retained the requisite understanding or skill; or
- Any other situation arises in which retraining appears necessary to ensure safe respirator use.

DOCUMENTATION REQUIREMENTS

Department Heads along with the Safety Coordinator will conduct a reasonable evaluation of all work tasks in their respective departments that have the potential to cause employee exposures to airborne contaminants in excess of the OSHA Permissible Limit (PEL). These evaluations will be coordinated with the City Safety Coordinator. Specific written work procedures will be developed by the Department Head for any work tasks that show respiratory protection is required to reduce employee exposures below the PEL. Risk Management along with the specific department will maintain documentation of the following information:

- All exposure test results and monitoring data.
- All fit testing results.
- All medical surveillance documentation.

- All training documentation.
- Annual review of respirator program.

Supervisors shall ensure that respirator information is provided to all employees who have been approved to wear a voluntary filtering facepiece (dust mask) and shall document the conveyance of such information.

GENERAL REQUIREMENTS

- Respirator use will be required for any task involving an exposure to a chemical substance where such exposure is at or above the Permissible Exposure Limit (PEL) and will continue until engineering and administrative controls have been installed to the extent feasible to reduce exposures below the PEL.
- Employees may not perform any task requiring the use of a respirator, or wear a respirator, for any reason, without first obtaining approval from the Supervisor.
- Employees are prohibited from entering any work area in which atmospheric conditions exist that are immediately dangerous to life and health (IDLH), including rescue operations.
- Employees who are required to participate in this program do so at no cost to them. The expense associated with training, medical evaluations and respiratory protection equipment will be paid by the City.
- Work areas will be evaluated to identify tasks in which airborne contaminants may be present during normal work routines or in emergency situations. The evaluation will include:
    - Identification and development of a list of hazardous substances used in the workplace.
    - Review of work processes to determine where potential exposures to these hazardous substances may occur. This review shall be conducted by surveying the workplace, reviewing work procedures, and talking with employees and Supervisors.
    - Exposure monitoring to quantify potential hazardous exposures.
- The Safety Coordinator shall ensure a hazard assessment of the workplace is conducted and updated as needed (i.e., any time work process changes which may potentially affect employee exposures). If an employee feels that respiratory protection is needed during a particular activity, he or she is to contact his or her Supervisor to then contact the Safety Coordinator. The Safety Coordinator will evaluate the potential hazard and arrange for outside assistance as may be necessary. The Safety Coordinator will then communicate the results of that assessment back to the employees. If it is determined that respiratory protection is necessary, all other elements of this program will be in effect for those tasks and this program will be updated accordingly.
- All respirators used by the City will be certified by the National Institute for Occupational Safety and Health (NIOSH) and used in accordance with the terms of that certification. All filters, cartridges, and canisters must be labeled with the appropriate NIOSH approval label. The label must not be removed or defaced at any time while it is in use.

RESPIRATORY PROTECTION POLICY

VOLUNTARY RESPIRATOR USE

Employees must receive permission from their Supervisor before being allowed to wear a voluntary filtering facepiece. Employees who receive approval to voluntarily wear a dust mask are exempt from all other elements of this program except that they must be provided with a copy of the Voluntary Use of Filtering Facepiece Respirator Form.

REQUIRED RESPIRATOR USE

Respirator use may be required for the following activities, but not limited to:

- Weekly cleanup of the shooting range (lead exposures).
- Sandblasting equipment (particulate metals and dust).
- Painting (solvents).
- Pesticide Applications (pesticides).
- Employee Exposure to tuberculosis.
- Cutting, drilling, chipping concrete (silica exposures).
- Any other job that may require the use of a respirator.

The employee's Supervisor should be consulted prior to the performance of any task in which the potential for inhalation of chemical vapors, fumes, mists, dusts, or fogs exists or is anticipated. Any employee wearing a respirator and performing a task not listed above shall contact their Supervisor so that they can be enrolled in the respiratory protection program. Appropriate training must be fulfilled before the task can be done.

MEDICAL EVALUATIONS

Employees who are either required to wear respirators, or who choose to voluntarily wear any type of respirator, except for a dust mask, must pass a medical exam before being permitted to wear a respirator on the job. All examinations and questionnaires are to remain confidential between the employee and the physician.

Employees who are required to wear respirators due to lead exposures in the shooting range are exempt from this requirement provided that they do not perform clean-up activities for more than thirty (30) days per year.

Employees are not permitted to wear respirators until a physician has determined that they are medically able to do so. Any employee refusing the medical evaluation will not be allowed to work in an area requiring respirator use. Employees failing the medical evaluation will be reassigned and/or have restrictions placed on their job duties to prevent exposure to contaminants that would otherwise require the use of a respirator.

RESPIRATORY PROTECTION POLICY

A licensed physician or designated facility (i.e., Dean) by the City will provide the medical evaluations. Medical evaluation procedures are as follows:

- A medical evaluation will be conducted using a questionnaire provided by the Supervisor.
- To the extent feasible, the City will assist employees who are unable to read the questionnaire (by providing help in reading the questionnaire). When this is not possible, the employee will be sent directly to the physician for 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 physician or clinic of choice determined by the Supervisor.
- Follow-up medical exams will be granted to employees as required by the standard, and/or as deemed necessary by the physician.
- All employees will be granted the opportunity to speak with the physician about their medical evaluation, if they so request.
- The Supervisor will provide the physician with a copy of this program, a copy of the Respiratory Protection standard, the list of hazardous substances used, and for each employee requiring evaluation; his or her work area or job title, proposed respirator type and weight, length of time required to wear respirator, expected physical work load (light, moderate, or heavy), potential temperature and humidity extremes, and any additional protective clothing required.
- Any employee required for medical reasons to wear a positive pressure air-purifying respirator will be provided with a powered air-purifying respirator.

After an employee has received medical clearance and begun to wear his or her respirator, additional medical evaluations will be provided under the following circumstances:

- 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 physician informs the Supervisor that the employee needs to be reevaluated;
- Information from this program, including observations made during fit testing and program evaluation, indicates a need for reevaluation;
- A change occurs in workplace conditions that may result in an increased physiological burden on the employee.

FIT TESTING

All employees required to wear respiratory protection or employees who use voluntary respirators other than a dust mask must be fit tested on an annual basis. Fit testing will be performed by a qualified individual or may be performed by the Department according to the following schedule:

- Prior to being allowed to wear any respirator with a tight fitting facepiece.
- Annually.
- Whenever there are changes in the employee's physical condition that could affect respiratory fit (e.g., obvious change in body weight, facial scarring, dental changes, etc.).

RESPIRATORY PROTECTION POLICY

Employees will be qualitatively fit tested with the make, model, and size of respirator that they will actually wear and be provided with different sizes of respirators so that they may find an optimal fit. Fit testing of Powered Air-Purifying Respirators (PAPRs) will be conducted in the negative pressure mode. If conditions affecting respirator use change, the Safety Coordinator will evaluate on a case-by-case basis whether Quantitative Fit Testing is required. Fit testing shall adhere to the following protocols:

- Employees having excess facial hair, beard growth, or long sideburns shall not be tested if a face to mask seal cannot be obtained.
- Employees will be instructed on the conditions that prevent a good respirator face seal such as, but not limited to; beard growth, sideburns, a skull cap that projects under the facepiece, temple pieces on glasses, or the absence of one or more dentures.
- One of the three qualitative fit testing protocols contained in the appendix to 29 CFR 1910. 134 will be used to conduct the test with a preference for saccharin fit testing.
- Employees will be provided a Safety Data Sheet on the substance used for the test upon request.

Prior to the fit test, employees will be instructed in the proper selection, use, and maintenance of respiratory protection. Employees will be provided the opportunity to handle the respirator, have it fitted properly, test its face to facepiece seal, and wear it in normal air for a familiarity period prior to the actual fit test. Fitting instructions will include demonstrations and practice in how the respirator should be worn, how to adjust it, and how to determine if it fits properly. Employees who must wear corrective lenses or glasses and will receive special instructions on the hazards posed by such use and shall be properly fitted such that the eyewear does not interfere with the facepiece seal.

The following records shall be kept on file in each employee's personnel record for a minimum of three (3) years:

- Name of employee.
- Date fit test was performed.
- Fit test protocols used.
- Name of test conductor.
- Respirator used during the fit test, including manufacturer, model number, size and approval numbers.

Employees failing the fit test will be reassigned and/or have restrictions placed on their job duties to prevent exposure to contaminants that would otherwise require the use of a respirator. Such circumstances include, but are not limited to; dentures and reconstructive surgery. The Safety Coordinator shall determine, at his or her discretion and upon consultation with appropriate personnel, what conditions constitute circumstances requiring reassignment and/or restriction.

RESPIRATORY PROTECTION POLICY

RESPIRATOR USE

All employees are required to conduct user seal checks each time that they wear their respirator. Employees shall use either the positive or negative pressure check (depending on which test works best for them) as specified in the Respiratory Protection Standard.

All employees shall be permitted to leave the work area to go to the locker room or other storage 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 should notify their Supervisor before leaving the area.

Employees are not permitted to wear tight-fitting respirators if they have any condition, such as facial scars, facial hair, or missing dentures, that prevents them from achieving a good seal. Respirator wearers are not allowed to have full beards. Employees involved in tasks requiring respirator use may be required to shave so that the respirator fits properly for their own protection. Employees are not permitted to wear headphones, jewelry, or other articles that may interfere with the face-to-face seal.

EMERGENCY PROCEDURES

Employees are not allowed to respond to emergencies involving hazardous chemicals and as such, no foreseeable emergency conditions resulting in employee exposures to hazardous substances are expected to occur. In the event a hazardous substance is involved in an emergency situation, follow the facility's emergency action plan.

RESPIRATOR MALFUNCTION

For any malfunction of an Air Purifying Respirator (APR), such as vapor breakthrough, face leakage, or improperly working valve, the respirator wearer must inform his or her Supervisor that the respirator no longer functions as intended, and go to the locker room or other designated area to maintain the respirator. Respirators found to be non-functioning as a result of an integral malfunctioning component part must be discarded. The City prohibits employees from repairing any non-functioning respirator.

CLEANING, MAINTENANCE, CHANGE SCHEDULES AND STORAGE

Cleaning

Respirators issued for the exclusive use of an employee shall be cleaned as often as necessary, but at least once per day if they have been used. The following procedure is to be used when cleaning and disinfecting respirators:

- Disassemble respirator, removing any filters, canisters, or cartridges.
- Wash the face and associated parts in mild detergent with warm water. Do not use organic solvents.
- Rinse completely in clean warm water.
- Wipe the respirator with disinfectant wipes (e.g., 70% Isopropyl Alcohol) to kill germs.
- Air dry in a clean area.
- Reassemble the respirator and replace any defective parts.
- Place in a clean, dry plastic bag or other airtight container.

Note: Supervisors and Crew Leaders shall ensure an adequate supply of appropriate cleaning and disinfection material at the cleaning station. If supplies are low, employees should contact their Supervisor.

Respirators are to be properly maintained at all times in order to ensure that they function properly and adequately protect the employee. Maintenance involves a thorough visual inspection for cleanliness and defects each time the respirator is worn. Worn or deteriorated parts will cause the respirator to be discarded as no components will be replaced or repairs made. Malfunctioning respirators shall be discarded and a new respirator shall be issued. The following checklist will be used when inspecting respirators:

- Facepiece:
    - Cracks, tears, or holes
    - Facemask distortion
    - Cracked or loose lenses/faceshield
- Headstraps:
    - Breaks or tears
    - Broken buckles
- Valves:
    - Residue or dirt
    - Cracks or tears in valve
- Filters/Cartridges:
    - Approval designation
    - Gaskets
    - Cracks or dents in housing
    - Proper cartridge for hazard

RESPIRATORY PROTECTION POLICY

Employees are permitted to leave their work area to perform limited maintenance on their respirator in a designated area that is free of respiratory hazards, such as a locker room or other designated area. Such maintenance may include washing their face and respirator to prevent eye or skin irritation, replacing the filter, cartridge or canister.

Change Schedules

Employees wearing respiratory protection against dusts and other particulates shall change the cartridges on their respirators when they first begin to experience difficulty breathing (i.e., resistance) while wearing their masks. Organic and inorganic vapor cartridges shall be changed out after a maximum of eight (8) hours of use. Changeouts may be required more frequently if breakthrough (odors) is noticed during the wearing of the respirator.

Storage

Respirators must be stored in a clean, dry area, and in accordance with the manufacturer's recommendations. Each employee will clean and inspect their own air-purifying respirator in accordance with the provisions of this program and will store their respirator in a plastic bag in their own locker or storage area. Each employee will have his or her name on the bag and that bag will only be used to store that employee's respirator.

DEFECTIVE RESPIRATORS

Respirators that are defective or have defective parts shall be taken out of service immediately and discarded. If, during an inspection, an employee discovers a defect in a respirator, he or she is to bring the defect to the attention of his or her Supervisor so that a new respirator can be issued.

PROGRAM EVALUATION

The Safety Coordinator will conduct periodic evaluations of the workplace to ensure that the provisions of this program are being implemented. The evaluations will include regular consultations with employees who use respirators and their Supervisors, site inspections, air monitoring and a review of records.

APPENDIX A

Voluntary Use of Filtering Facepiece Respirator Form

City of Madison – Safety

(Last Updated: June 2019)

City of Madison employees may choose to use filtering facepiece respirators, also referred to as N95 or N99 disposable dust masks, on a voluntary basis during activities that involve exposures to low-level, non-hazardous nuisance dust or other similar particulate.

The filtering facepiece respirator you have elected to use is approved, when fitted properly, for use against nuisance non-hazardous particulate (e.g., fiberglass, sheet rock dust, sawdust, dirt, pollen, animal dander).

According to the Occupational Safety and Health Administration (OSHA) regulations, the City of Madison must provide you with the following information if you wear a filtering facepiece respirator voluntarily. The following information is copied from the OSHA Respiratory Protection Standard and pertains to the voluntary use of respirators. After reading the information below, please complete the section on the back of this form.

29 CFR 1910.134, APPENDIX D - (MANDATORY) INFORMATION FOR EMPLOYEES USING RESPIRATORS WHEN NOT REQUIRED UNDER THE STANDARD

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If your employer provides respirators for your voluntary use, or if you provide your own respirator, you need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

Please complete the section on the back of this page.

RESPIRATORY PROTECTION POLICY

Name (print):_____

Job Classification:_____

Department:_____ Supervisor:_____

Location of use (building, area, etc.):_____

Reason for using dust mask (describe nature of work, specific location, and type of dust):

_____

_____

I have read and understood the information provided above:

Signature:_____ Date:_____

TRAINING REQUIREMENTS POLICY

PURPOSE

Many policies in the safety policy manual require employee training on both an initial and recurring basis. For convenience, these requirements have been summarized in Appendix A of this policy. For more details regarding training type and frequency, refer to the individual policies within this manual.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy

Department Heads

- Ensure that the requirements of this policy are completed as required.
- Ensure that all employees within their department receive appropriate training and instruction on all safety policies applicable to their job.

Supervisors

- Ensure attendance of employees' at all training sessions.

Employees

- Attend all scheduled training sessions.

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

- Authorized Employee – Employees specifically permitted by management to perform certain job related tasks.
- Affected Employee – Employees who are affected by the activity being performed.

DEPARTMENTAL REQUIREMENTS

The safety training requirements summarized in this policy represent minimum safety related training that shall be provided to employees. Additional safety related training may be provided within each department.

TRAINING REQUIREMENTS POLICY

TRAINING

Department Heads and Supervisors will receive training in this policy at their time of assignment and whenever this policy is revised. Training shall be provided to affected employees at the intervals listed below and those listed in Appendix A:

- To all new employees before they begin a specific task that requires training.
- As required by a specific safety policy contained in the safety manual.
- As a component of regularly scheduled department meetings.
- As a component of on-the-job training.
- When employees are assigned to new jobs.
- When new equipment, tools, or processes are introduced.
- When new hazards are identified.
- Whenever Supervisors believe additional training is necessary
- Whenever employees demonstrate a lack of understanding of the training received.

Affected employees will also be described in the individual safety policies.

DOCUMENTATION REQUIREMENTS

Documentation showing that employees have received training in the requisite program areas shall be kept by individual departments.

METHOD OF TRAINING

Department Heads are free to utilize various training methods that best fit their departmental needs, provided that such methods are effective and comply with all applicable OSHA, Department of Safety and Professional Services, City of Madison requirements, and any other applicable local codes and ordinances.

APPENDIX A

Safety Topic	Required Frequency of Training and Retraining
Asbestos	Initial, Annually
Bloodborne Pathogens	Initial, Annually
Confined Space	Initial, Whenever there is a change in operations that present hazards
Lockout/Tagout	Initial, Program needs to be reviewed annually
Electrical Safety	Initial
Emergency Action Plan	Initial, If changed
Fall Protection	Initial, Inadequate employee knowledge
First Aid/CPR	Initial, Every 2 years (CPR, AED)
Hazard Communications	Initial, When new chemicals are introduced
Hearing Conservation	Initial, Annually for employees in specific job functions
Ladders	Initial, Inadequate employee knowledge
Lead	Initial, Annually
Material Handling and Lifting	Initial
Personal Protective Equipment	Initial, Inadequate employee knowledge
Pesticides	Certification required
Powered Industrial Trucks	Certification required, Every 3 years
Respiratory Protection	Initial, Annual fit test, Pulmonary Exam (every 1,3, or 5 years)
Trenching and Excavating	Initial
Vehicle Operations	Initial, Driver's license
Hot Work	Initial, Fire watches must be trained in the use of fire extinguisher
Work Zone and Traffic Safety	Initial

TRENCHING AND EXCAVATION POLICY

PURPOSE

This policy contains safety requirements to protect City of Madison employees during work in excavations and/or trenches. This policy complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code as created by the Wisconsin Department of Safety and Professional Services and 29 CFR Part 1926.650 (Excavations) as created by the U.S. Occupational Safety and Health Administration.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy.

Department Heads

- Implement this policy.

Supervisors

- Ensure this policy is followed by all employees.
- Supervisors are designated as a "Competent Person" for the purpose of this policy.

Employees

- Follow requirements contained in this policy.

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

- Competent Person - means one, usually the supervisor, who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.
- Excavation - means any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.

- Trench - means a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet (4.6 m). If forms or other structures are installed or constructed in an excavation so as to reduce the dimension measured from the forms or structure to the side of the excavation to 15 feet (4.6 m) or less (measured at the bottom of the excavation), the excavation is also considered to be a trench.

DEPARTMENTAL REQUIREMENTS

This policy represents minimum excavating and trenching requirements. Department Heads may develop more specific procedures to be followed in their respective departments.

TRAINING

Employees engaged in excavation and trenching type activities shall receive instruction in these requirements at the time of their initial assignment. Department Heads will ensure that Supervisors receive appropriate training such that they meet the criteria of a “competent person”.

DOCUMENTATION REQUIREMENTS

Departments who use trenching procedures must provide training for their employees and, maintain a list of eligible employees who can perform trenching operations. This list will be maintained by the department and updated annually.

GENERAL REQUIREMENTS

All surface encumbrances that are located so as to create a hazard to employees shall be removed or supported, as necessary, to safeguard employees.

The estimated location of utility installations, such as sewer, telephone, fuel, electric, water lines, or any other underground installations that reasonably may be expected to be encountered during excavation work, shall be determined prior to opening an excavation.

Diggers hotline shall be contacted at least 72 hours prior to performing all work to locate underground utilities. Facility blueprints shall be referenced for all private utilities that may exist on the property where excavating work is to be performed.

When excavation operations approach the estimated location of underground installations, the exact location of the installations shall be determined by safe and acceptable means. While the excavation is open, underground installations shall be protected, supported or removed as necessary to safeguard employees.

TRENCHING AND EXCAVATION POLICY

Employees exposed to public vehicular traffic shall be provided with, and shall wear, the appropriate high-visibility clothing as required by the uniform code manual or departmental requirement whichever is more strict.

No employee shall be permitted underneath loads handled by lifting or digging equipment. Employees shall be required to stand away from any vehicle being loaded or unloaded to avoid being struck by any spillage or falling materials. Operators may remain in the cabs of vehicles being loaded or unloaded when the vehicles are equipped, in accordance with 1926.601(b)(6), to provide adequate protection for the operator during loading and unloading operations.

When mobile equipment is operated adjacent to an excavation, or when such equipment is required to approach the edge of an excavation, and the operator does not have a clear and direct view of the edge of the excavation, a warning system shall be utilized such as barricades, hand or mechanical signals, or stop logs. If possible, the grade should be away from the excavation.

Walkways shall be provided where employees or equipment are required or permitted to cross over excavations. Guardrails which comply with 29 CFR 1926.502(b) shall be provided where walkways are 6 feet (1.8 m) or more above lower levels.

ACCESS AND EGRESS

Structural ramps that are used solely by employees as a means of access or egress from excavations shall be designed by a competent person. Structural ramps used for access or egress of equipment shall be designed by a competent person qualified in structural design, and shall be constructed in accordance with the design.

Ramps and runways constructed of two or more structural members shall have the structural members connected together to prevent displacement.

Structural members used for ramps and runways shall be of uniform thickness.

Cleats or other appropriate means used to connect runway structural members shall be attached to the bottom of the runway or shall be attached in a manner to prevent tripping.

Structural ramps used instead of steps shall be provided with cleats or other surface treatments on the top surface to prevent slipping.

A stairway, ladder, ramp or other safe means of egress shall be located in trench excavations that are 4 feet (1.22 m) or more in depth so as to require no more than 25 feet (7.62 m) of lateral travel for employees.

TRENCHING AND EXCAVATION POLICY

HAZARDOUS ATMOSPHERES

Where oxygen deficiency (atmospheres containing less than 19.5 percent oxygen) or a hazardous atmosphere exists or could reasonably be expected to exist, such as in excavations in landfill areas or excavations in areas where hazardous substances are stored nearby, the atmospheres in the excavation shall be tested before employees enter excavations greater than 4 feet (1.22 m) in depth.

Adequate precautions shall be taken to prevent employee exposure to atmospheres containing less than 19.5 percent oxygen and other hazardous atmospheres. These precautions include providing proper respiratory protection or ventilation.

Adequate precaution shall be taken such as providing ventilation, to prevent employee exposure to an atmosphere containing a concentration of a flammable gas in excess of 20 percent of the lower flammable limit of the gas.

When controls are used that are intended to reduce the level of atmospheric contaminants to acceptable levels, testing shall be conducted as often as necessary to ensure that the atmosphere remains safe.

EMERGENCY RESCUE EQUIPMENT

Emergency rescue equipment, such as breathing apparatus, a safety harness and line, or a basket stretcher, shall be readily available where hazardous atmospheric conditions exist or may reasonably be expected to develop during work in an excavation. This equipment shall be attended when in use.

Employees entering bell-bottom pier holes, or other similar deep and confined footing excavations, shall wear a harness with a lifeline securely attached to it. The lifeline shall be separate from any line used to handle materials, and shall be individually attended at all times while the employee wearing the lifeline is in the excavation.

PROTECTION FROM HAZARDS ASSOCIATED WITH WATER ACCUMULATION

Employees shall not work in excavations in which there is accumulated water, or in excavations in which water is accumulating, unless adequate precautions have been taken to protect employees against the hazards posed by water accumulation. The precautions necessary to protect employees adequately vary with each situation, but could include special support or shield systems to protect from cave-ins, water removal to control the level of accumulating water, or use of a safety harness and lifeline.

If water is controlled or prevented from accumulating by the use of water removal equipment, the water removal equipment and operations shall be monitored by a competent person to ensure proper operation.

TRENCHING AND EXCAVATION POLICY

If excavation work interrupts the natural drainage of surface water (such as streams), diversion ditches, dikes, or other suitable means shall be used to prevent surface water from entering the excavation and to provide adequate drainage of the area adjacent to the excavation. Excavations subject to runoff from heavy rains will require an inspection by a competent person and compliance with paragraphs (a) and (b) above.

STABILITY OF ADJACENT STRUCTURES

Where the stability of adjoining buildings, walls, or other structures is endangered by excavation operations, support systems such as shoring, bracing, or underpinning shall be provided to ensure the stability of such structures for the protection of employees.

Excavation below the level of the base or footing of any foundation or retaining wall that could be reasonably expected to pose a hazard to employees shall not be permitted except when:

- A support system, such as underpinning, is provided to ensure the safety of employees and the stability of the structure; or
- The excavation is in stable rock; or
- A registered professional engineer has approved the determination that the structure is sufficiently removed from the excavation so as to be unaffected by the excavation activity; or
- A registered professional engineer has approved the determination that such excavation work will not pose a hazard to employees.

Sidewalks, pavements and appurtenant structure shall not be undermined unless a support system or another method of protection is provided to protect employees from the possible collapse of such structures.

PROTECTION OF EMPLOYEES FROM LOOSE ROCK OR SOIL

Adequate protection shall be provided to protect employees from loose rock or soil that could pose a hazard by falling or rolling from an excavation face. Such protection shall consist of scaling to remove loose material; installation of protective barricades at intervals as necessary on the face to stop and contain falling material; or other means that provide equivalent protection.

Employees shall be protected from excavated or other materials or equipment that could pose a hazard by falling or rolling into excavations. Protection shall be provided by placing and keeping such materials or equipment at least 2 feet (.61 m) from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.

TRENCHING AND EXCAVATION POLICY

INSPECTIONS

Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections shall also be made after every rainstorm or other hazard increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated.

Where the competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, exposed employees shall be removed from the hazardous area until the necessary precautions have been taken to ensure their safety

PROTECTION FROM CAVE-INS

Each employee in an excavation shall be protected from cave-ins by an adequate protective system designed in accordance with 29 CFR 1926.652 except when:

- Excavations are made entirely in stable rock; or
- Excavations are less than 5 feet (1.52 m) in depth and examination of the ground by a competent person provides no indication of a potential cave-in. Supervisors shall consult the applicable regulation for more detailed requirements and are required to ensure that all sloping, benching and shoring activities comply with the specifications put forth in 29 CFR 1926 Subpart P; Appendices A through F.

When protective systems are required (e.g., greater than 5 feet deep) for excavations or trenches, the walls of the excavation or trench must be one of the following:

- Sloped for stability.
- Cut to create stepped or benched grades.
- Supported by a system made with posts, beams, shores or planking and hydraulic jacks.
- Supported by a trench box to protect workers in an excavation or trench.

Additionally:

- Excavated materials must be at least 2 (two) feet away from the edge of the excavation or trench.
- An exit ladder must be within 25 feet of workers.

WORK ZONE AND TRAFFIC SAFETY POLICY

PURPOSE

This policy has been developed to provide safe procedures for all construction and traffic related activities. All construction related type activities shall comply with the requirements of 29 CFR Part 1926 as created by the Occupational Safety and Health Administration (OSHA). This policy complies with Chapter SPS 332 (Public Employee Safety and Health) of the Wisconsin Administrative code as created by the Wisconsin Department of Safety and Professional Services.

RESPONSIBILITIES

Safety Coordinator

- Support and manage this policy

Department Heads

- Implementation of this policy

Supervisors

- Ensure policy is adhered to by all employees

Employees

- Follow requirements contained in this policy

All employees are responsible for complying with the requirements contained in this policy. Failure to abide by these requirements may subject the employee to disciplinary action, up to and including discharge.

DEFINITIONS

- None

DEPARTMENTAL REQUIREMENTS

This policy represents minimum construction related requirements. Department Heads responsible for any construction activity shall ensure that all of the applicable portions of 29 CFR Part 1926 are implemented at the job site.

WORK ZONE AND TRAFFIC SAFETY POLICY

TRAINING

All employees whose job duties involve construction or traffic related activities will receive instruction in this policy at their time of assignment and whenever this policy is revised.

Flaggers should be trained/certified and use the signaling methods required by their department.

Workers on foot, equipment operators, and drivers in internal work zones need to know the routes that construction vehicles will use.

Equipment operators and signal persons need to know the hand signals used on the worksite.

Operators and workers on foot need to know the visibility limits and the “blind spots” for each vehicle on site.

Workers shall be made aware of the ways in which shiftwork and night work may affect their performance.

DOCUMENTATION REQUIREMENTS

None

GENERAL REQUIREMENTS

There must be a traffic control plan for the movement of vehicles in areas where there are also workers conducting other tasks.

Drivers, workers on foot, and pedestrians must be able to see and understand the routes they are to follow. The department, Federal, state, or local, will determine the configuration of the temporary traffic control zone for motorists and pedestrians.

The Supervisor will determine the internal traffic control plan within the worksite. When there are several projects, coordinated vehicle routes and communication between departments will reduce vehicular struck-by incidents.

Signs

- Standard highway signs for information, speed limits, and work zones will assist drivers in identifying, in designated traffic paths, such directives as:
    - EVACUATION ROUTE;
    - DO NOT ENTER;
    - REDUCED SPEED AHEAD;
    - ROAD CLOSED; and
    - NO OUTLET
- Using standard highway signs for internal construction worksite traffic control will assist workers in recognizing the route they are to use at the construction site.

Traffic Control Devices

- Standard traffic control devices, signals, and message boards will instruct drivers to follow a path away from where work is being done. The Supervisor will determine the approved traffic control devices such as cones, barrels, barricades, light boards and delineator posts that will be used as part of the traffic control plan.
- These standard devices should also be used inside the work zone.

Flaggers

- Flaggers and others providing temporary traffic control shall wear high visibility clothing with a background of fluorescent orange-red or yellow-green and retroreflective material of orange, yellow, white, silver, or yellow-green.
- Class 3 garments are required at all times.
- Flaggers shall use STOP/SLOW paddles, paddles with lights, or flags (flags shall be used only in emergencies.)
- The STOP sign shall be octagonal with a red background and white letters and border. The SLOW sign is the same shape, with an orange background and black letters and a border.

Lighting

- Flagger stations shall be illuminated.
- Lighting for workers on foot and equipment operators are to be at least 5 foot-candles or greater.
- Where available lighting is not sufficient, flares or chemical lighting should be used.
- Glare affecting workers and motorists shall be controlled or eliminated.

Driving

- Seat belts and rollover protection shall be used on equipment and vehicles as stated by the manufacturer.

WORK ZONE PROTECTIONS

All work zones in the roadway, on the right-of-way, in designated parking areas, or on a sidewalk must have the proper warning signs and be properly barricaded. If you are unsure of the proper method for barricading and signing a work zone, contact your Supervisor immediately before proceeding.

All traffic control devices to warn traffic and protect employees shall be placed and maintained in accordance with the Uniform Traffic Control Devices Manual which may be obtained from the American Traffic Safety Services Association or the Federal Highway Administration.

Various styles of concrete, water, sand, collapsible barriers, crash cushions, and truck-mounted attenuators shall be used to limit motorist intrusions into the construction work zone.

All employees who work on highways, roads, streets or their easements should wear class 3 high visibility traffic clothing and equipment that provides equivalent protection