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Applicability:

This program applies to all personnel and resources employed by The City of Deadwood as well as any volunteers.

Introduction

The City of Deadwood's most valuable assets are the employees whose efforts have enabled us to achieve the level of success we enjoy today.

The safety and wellbeing of every employee is the most important element in protecting that asset. Consequently, the City is committed to equipping employees to perform their assigned tasks safely.

The safety program cannot be successful without the active participation of all employees. As a valued employee, you should know your responsibilities so that if you see coworkers performing unsafe acts, you can remind them that safety is a top priority.

Employees are expected to follow all safety and health rules. Failure to follow the important rules in this manual could result in injury to yourself or others or damage to property. Disciplinary action could be taken for not following current practices, up to and including termination of employment.

When you arrive for work every day,

make sure safety is a top priority.

Safety Policy Statement

Mission

The City of Deadwood and its employees will integrate occupational safety and health practices into all activities and related operations planning and decision making to achieve superior health and safety performance. Simply stated: Safe operation is our only standard!

Policy

The City of Deadwood will manage its operations in accordance with our occupational, safety, and health principles and beliefs, in a manner that helps to control risks and protect the environment.

Principles & Beliefs

The management philosophy of the City of Deadwood is to produce superior service for our citizens in the safest and most efficient ways possible. Employees will be innovative and efficient in offering services that return economic value, while simultaneously protecting all workers of hazards. Only through this management philosophy can we serve its citizens.

These occupational, safety, and health principles and beliefs are intended to guide the actions of the City of Deadwood and its employees while they integrate this occupational, health and safety philosophy into their day-to-day activities.

Occupational, safety and health must come first, no matter how urgent the job. A healthy and safe work environment for all employees is essential for the success of our operations, as well as for our families and communities. On-the-job safety is just as important as at-home safety, and vice versa. All incidents are preventable through the application of proper training, planning, knowledge, and resources to identify and control safety risks.

Personal Commitment

Only employees with the highest commitment to health and safety, environmental protection, and compliance will work for the City of Deadwood. All employees must take personal responsibility to work safely and show concern for the health and safety of their co-workers, contractors, citizens, and community.

Superior Performance

To ensure superior performance, the City of Deadwood will provide the necessary resources for effective occupational, safety, and health management. We will be recognized by our employees and citizens as an organization with superior occupational, safety, and health performance. We will continuously improve our performance through the application of our safety management

systems. We will set and review occupational, safety, and health objectives and targets and strive to meet them.

100 Percent Compliance

All employees are responsible for complying with all rules, policies, and procedures as a condition of employment. We will regularly audit our assets and operating practices. We will remedy any shortcomings found and promptly correct any deficiencies. Failure to comply with the processes and procedures may lead to disciplinary action.

Incident prevention

Each employee must create a culture of accident and injury elimination by assisting in the recognition and mitigation of workplace hazards. We must effectively learn and create knowledge through investigating injuries, illnesses, and near misses.

Elimination of Wasteful and Dangerous Practices

Facilities will be designed, constructed, operated, and maintained to eliminate wasteful and dangerous practices.

Open Communication

The City of Deadwood will proactively work to develop and advance effective approaches to protect people and the environment. We will listen to our employees, citizens, and neighbors to continuously improve our operations, products, and safety performance.

Signed

Signed Mayor

General Safety Rules

The following general safety rules have been developed to provide a safe and healthy working environment for all employees. These apply to all work activities.

- 1. Report to work well-rested and physically fit to be able to give full attention to your job.
- 2. Persons with physical or mental impairment should not perform tasks where their impairment has the potential to endanger themselves or others.
- 3. No employee may work while under the influence of alcohol, illegal drugs, or prescription drugs not prescribed to them. No employee may work if the effects of prescription or non-prescription drugs or other substances endangers their health or safety or that of any other person.
- 4. Persons working alone must check-in throughout their shift with a supervisor to ensure that their wellbeing is maintained.
- 5. Inappropriate behavior, such as horseplay, fighting, and practical jokes, are extremely dangerous and will not be tolerated.
- 6. Any unsafe conditions which are encountered shall be corrected or reported to your supervisor, department head, or Safety Coordinator.
- 7. Do not operate any machinery or equipment if it is known to be in an unsafe condition.
- 8. Machinery and equipment, including vehicles, are only to be operated by qualified persons, and then only when they are adequately trained in the use of the equipment and authorized to operate it.
- 9. Unsafe acts shall be reported to your supervisor, department head, or the Safety Coordinator.
- 10. Personal protective equipment (PPE) must be worn when performing specific duties that require its use to ensure worker safety. Persons refusing to wear PPE may be subject to disciplinary action. Selection of the correct PPE may require assistance. Contact your supervisor or Safety Coordinator for guidance.
- 11. Employees must inform supervisors when they have significant allergies that might be encountered while at work (e.g., bee stings). This information is to be passed on to the Safety Coordinator. The person with a severe allergy should carry and be familiar with how to use an ANA Kit or Epi-pen.
- 12. Avoid manual lifting of materials, articles, or objects which are too heavy. Whenever possible, use mechanical lifting devices to move heavy objects.
- Smoking is prohibited in city buildings, facilities, vehicles, and enclosed equipment. Smoking is only permitted in designated smoking areas. Everyone must observe any "No Smoking" signs.
- 14. Avoid parking, even temporarily, in designated fire lanes.

- 15. Employees are responsible for reporting to their supervisor, Safety Coordinator, and Human Resources Director whenever they become sick or injured at work. All injuries, no matter how minor, must be reported immediately.
- 16. Employees must keep their work area clean and orderly. Poor housekeeping habits can be a serious safety hazard. Do not leave materials in aisles, walkways, stairways, roads, or other points of egress.
- 17. Any damaged equipment or missing machine guards must be reported to your supervisor.
- 18. All warning signs, signals, and alarms shall be obeyed.
- 19. Employees shall not use unfamiliar tools or equipment without proper instruction and permission from their immediate supervisor. Always use the correct tool for the job; do not improvise.
- 20. Loose or ragged clothing, dangling neckwear, and bracelets shall not be worn around moving parts of machinery or electrically energized equipment.
- 21. Firefighting equipment shall be maintained per the manufacturer's instructions.
- 22. Whenever mobile equipment or vehicles are equipped with seatbelts, the operator and passengers shall use the belts whenever the equipment is moving.
- 23. Flammable liquids are to be handled and stored only in approved safety containers. Proper lids and caps must always be used on storage containers. Cloth, paper, and other "makeshift" lids and caps are prohibited. Use bonding cables while filling containers holding flammable liquids.
- 24. Never dispense gasoline into a fuel tank while the engine is running.
- 25. Do not dispose of any hazardous materials or flammable liquids by pouring them down a sewer or drain. Guidance in proper disposal of hazardous materials is available from the Safety Coordinator.
- 26. Compressed gas cylinders should be stored in an upright position and chained or otherwise secured. Where not connected to a service line or manifold system, the protective caps for these cylinders shall be in place.
- 27. Flash-back arrestors or reverse gas flow check valves must be in place on all oxy-acetylene fuel cutting equipment.
- 28. Compressed air shall not be used for cleaning clothing or a person's body.
- 29. Do not attempt to repair defective wiring or other electrical equipment. Report defective electrical equipment to your supervisor. Electrical equipment can only be repaired or serviced by a qualified electrician.
- 30. Faulty or makeshift ladders must not be used.
- 31. When lifting, employees should have a secure footing, bend their knees, keep their back straight, take a firm hold of the object being lifted, and slowly straighten their legs. If the employee must turn with a load, they must turn their feet and the whole body. DO NOT

twist the back. Avoid reaching while lifting or putting the object down. If the object is too heavy, get assistance.

32. If something looks unsafe, it probably is. IF YOU ARE IN DOUBT ... ASK!

Program Overview

The City of Deadwood will implement a safety program using a 6-pronged approach. Each section of the program is necessary to ensure an effective and efficient safety program is established.

To be effective, the safety program must have buy-in at every level of employee. From the Commission down to the newest seasonal employee, everyone must take an active role in the safety of the employees. The entire program will be overseen by the designated Safety Coordinator and will be implemented by department heads, supervisors, and individual employees.

- 1. **Safety training**. Safety training is a necessity not only for new hires but also for current employees to be refreshed and kept up to date on industry standards. The Safety Committee will accomplish quarterly safety training that covers general industry safety topics. Each department is encouraged to conduct department-specific training weekly. Safety training will be tracked by the Safety Coordinator.
- 2. **Safety inspections**. Safety inspectors will be assigned to each department. The inspectors will be trained in identifying and abating hazards. Hazards will be noted and maintained by the Safety Coordinator in a master hazard log. Each department will be responsible for correcting hazards within their department and facilities.
- 3. **Safety committee**. A strong safety committee is pivotal to the success of any safety program. The safety committee will be comprised of multiple employees at all levels of the organization. The safety committee will review accidents/incidents, review the master hazard log, and innovate on strategies to make us safer.
- 4. **Risk mitigation**. Risk mitigation is where safety comes to life. Each department within the City of Deadwood is different and has different tasks to complete. The departments' leadership will be responsible for implementing Standard Operating Procedures (SOPs) and job hazard assessments to ensure the safety of their staff.
- 5. Accident/incident reporting. Accident/incident reporting must be done accurately and timely. Reporting is a way to collect data and to track trends. These trends can be used to prevent future accidents by identifying ways to mitigate risk.
- 6. **Safety awards**. The City of Deadwood believes in rewarding safe behavior. Rewarding safe behavior results in a strong safety culture and accountability amongst all staff. The Safety Coordinator will establish and manage an effective awards program that promotes safe behavior and awards those that have gone above and beyond in the name of safety.

Chapter 1: Safety Training

1. Safety training is a critical part of any safety program. Safety training must be relevant and interesting to keep employees engaged and thinking critically. The objective of safety meetings and briefings is to increase the employee's awareness of the hazards associated with all operations.

Safety training will be conducted quarterly and will be required for all employees. The meetings will be informal and may include:

- (a) Discussion of new or changed procedures or policies.
- (b) Discussion of problems or potential problem areas.
- (c) Classes or videos of maintenance, safety, and occupational health-related nature.
- (d) General industry safety topics.

We will utilize safety training resources such as in-house experts, private companies, or the South Dakota Municipal League to conduct relevant and interesting training.

Accident and Injury Prevention	Ergonomics	Industrial Hygiene
Bloodborne Pathogens	Excavation, Trenching, and Shoring	Lifting and Your Back
Common Injuries/Slips, Trips, and Falls	Exits-Emergency Action Plan	Lockout/Tagout
Compressed Gas Safety	Eye and Face Protection	Office Safety
Confined Spaces	Fall Protection	PPE
Traffic Control	Portable Fire Extinguishers	Working Around Powerlines
Electrical Hazards	Global Harmonization System	Respiratory Protection
Basics of Electricity	Hazardous Waste	Hearing Conservation

The following classes or similar topics will be presented on an annual basis.

2. Safety Stand-Down Day: Once a year, we will host a safety stand-down day. This day will be a full day dedicated to the safety and health of its employees. An overview of the previous year's accidents/incidents will be covered, new safety policies and procedures will be introduced, and safety professionals and guest speakers may also be utilized at the safety stand-down day.

- 3. New Employee Safety Training: New employees will attend new employee safety training. A safety training regimen relevant to the new employee's position will be completed before the employee is released to work in the field. A list of required classes will be available in the HR office or with the Safety Coordinator. Training will be accomplished using interactive online classes, videos, and PowerPoint presentations.
- 4. Department Training: In addition to new employee training and monthly training, each department is encouraged to conduct safety training that is specific to their duties. Examples could be bucket truck training for park staff, snow removal operations for the street staff, or chlorine gas training for water/sewer staff. This training should be documented with a roster and turned into the Safety Coordinator for tracking and filing.

Chapter 2: Safety Inspections

- For the City of Deadwood to take a proactive stance on safety, inspections will take place annually. Inspectors who have completed the 30-hour OSHA training program will inspect all facilities and identify potential safety hazards. The results will be recorded and passed on to the Safety Coordinator and will then be recorded on the master hazard log, which will track safety hazards and corrections. Safety hazards that can be found and corrected will aid in preventing workplace injuries to all employees.
- 2. The City of Deadwood may utilize services OSHA provides through its consultation inspections, which are voluntary inspections that OSHA offers to agencies wanting to improve safety within their organizations.
- 3. The Safety Coordinator can coordinate noise hazard surveys at facilities. Noise hazard surveys will give an indication of decibel levels in and around buildings, as well as during various tasks and operations. This information can then be used to post placards in areas where hearing protection is required.
- 4. Vehicle inspections: Before operating a vehicle for the first time each day, the driver must walk around and inspect the vehicle for damage, inoperable lights, loose hardware, under-inflated tires, or any other condition which may create an unsafe situation. It is the driver's responsibility to see that a vehicle is in safe operating condition. Employees will conduct the inspection per the appropriate approved checklist. Completed checklists will be turned in to the employee's immediate supervisor and will be maintained on file for a minimum of 1 year. For further information refer to the motor vehicle use policy located in appendix J.

Chapter 3: Safety Committee

- The City of Deadwood Safety Committee is the focal point of the accident prevention and safety effort. The safety committee will consist of the following individuals: Safety Coordinator, department representatives, and any other individuals who aid in promoting a safety culture. The safety committee will be chaired by the Safety Coordinator, and meeting minutes will be documented. All members of the safety committee are encouraged to make their participation a priority.
- 2. The primary purpose of the safety committee is to promote a culture of safety within the City of Deadwood. The committee meetings allow for the exchange of ideas and the development of policies and procedures necessary to counter, correct, and control hazards. The safety committee will discuss the following items: accident/incident log, master hazard log, unsafe trends, safety policies, and safety awards. The committee will act as an open forum to discuss new and innovative ideas that pertain to the safety culture.

The safety committee will meet monthly for the following purposes:

- a. **Information collection**: To identify hazards through the exchange of ideas, discussions, and reports of existing deficiencies.
- b. **Analysis**: To identify systemic hazard causes. Committee minutes will track systemic problems through to their resolution. Those systemic problems that cannot be resolved at the committee will be forwarded to the leadership.
- c. **Countermeasures**: The committee will formulate safety policies and procedures. Meetings will be used to identify, analyze, and control systemic problems. Identified countermeasures must eliminate or control the identified systemic problem.
- d. **Implementation**: The committee will serve as the primary forum for leadership and will be the driving force that executes the safety culture.
- e. **Control**: The committee will identify or develop specific measurable standards to monitor the effectiveness of each identified countermeasure. All internal and external sources will be periodically reviewed to monitor overall safety program effectiveness.

Meeting Schedule: The Safety Coordinator will notify the committee members of meeting dates and times by publishing a hard copy agenda of topics to be discussed. Committee members may receive a notification via email or routine distribution. Hard

copies will be provided at the meeting. Anyone wishing to have an issue placed on the agenda should notify the Safety Coordinator as far in advance of scheduled meetings as possible.

Attendance: <u>All</u> committee members must attend if available. An open invitation to the safety committee is afforded to the other front-line City of Deadwood Employees if they desire to attend.

Members: Committee members are to act as a point of contact within their department for safety. Each member will take immediate, appropriate action to correct or eliminate all known unsafe acts or procedures observed or reported to them. The intent of committee membership is to ensure all departments are represented.

Chapter 4: Safety Program Monitoring and Risk Mitigation

- 1. Safety and Accident Prevention Program Monitoring: The City of Deadwood's Safety Coordinator will monitor the success of the safety program by periodically reviewing program elements with department heads, superintendents, and safety inspectors. The Safety Coordinator will monitor and analyze the results of external and internal inspections and surveys to determine the effectiveness of programs. Deficient items noted during scheduled inspections, informal observations, or reports by individuals will be recorded in the master hazard log pending corrective action. Frequent review of open hazard log items serves to promote timely corrective actions and keeps leadership informed. The Safety Coordinator will ensure that individuals employed by the City of Deadwood receive the necessary safety and job-related training to successfully implement the safety program.
- 2. **Safety Management Requirements:** The safety program is based on a 5-step Risk Management Process and uses "Safety By Choice, Not by Chance" as the current safety philosophy of accident prevention.
- 3. **Risk Mitigation Process:** The safety program will utilize the 5-step risk mitigation (RM) process to ensure the safety of its employees.

The 5 steps are cyclical and are as follows:

- Identify hazards
- Assess the hazards
- Develop controls and make decisions
- Implement the controls
- Supervise and evaluate



It is imperative that each employee learn this 5-step process to mitigate risk in the field. This 5-step approach, when utilized correctly, can significantly mitigate risk in the workplace, resulting in fewer accidents and better overall safety culture.

The principles of RM are:

- Integrate RM into all phases of tasks and operations.
- Make risk decisions at the appropriate level.
- Accept no unnecessary risk.
- Apply RM cyclically and continuously.

RM is the City's process for helping departments and individuals make informed decisions to reduce or offset risk. Using this process increases operational effectiveness and the probability of task accomplishment. It is a systematic way of identifying hazards, assessing them, and managing the associated risks. RM outlines a disciplined approach to express a risk level in terms readily understood at all levels.

Except in time-constrained situations, planners deliberately complete the process. Departments develop data and use charts, codes, and numbers to analyze probability and standardize the analysis of risk. They use this standardization to manage risk in a logical and controlled manner over time. However, the 5-step process is compatible with intuitive and experience-based decision making.

4. Job Hazard Analysis: An integral part of the risk mitigation process is job hazard analysis (JHAs). JHAs are a tool that employees can use to identify and assess hazards, implement controls, and utilize proper PPE. JHAs will be created by department leadership and will be available to every department employee. JHAs shall be covered before doing any task assigned by the supervisor. Leadership will use the standard JHA form provided to them by the Safety Coordinator. JHAs should be stored both digitally as well as in hard copy format, which should be placed in a binder that is accessible to all employees at all times. JHAs are meant to be a living document and should change as new hazards are identified and analyzed. Any questions regarding JHAs shall be directed to the employee who created the JHA, department leadership, or Safety Coordinator.

Chapter 5: Accident and Incident Reporting

Accident and incident reporting is an important tool to track trends and prevent future accidents. Employees must understand that failure to report an accident or incident could lead to more catastrophic accidents in the future. Accident/incident report forms, as well as the first report of injury forms, are available from the Safety Coordinator, Human Resources, and supervisors. In the event of an incident, the employee must contact their immediate supervisor to initiate the reporting process. Accident/incident forms will be turned in to the office and the first report of injury reports will be turned in to human resources. Both reports will be forwarded to the Safety Coordinator for tracking purposes.

 Accident/Incident Reporting: Accident/incident reporting, no matter how small an incident, is critical in tracking incident trends. <u>ALL ACCIDENTS/INCIDENTS, NO MATTER</u> <u>HOW MINOR NEED TO BE REPORTED USING THE ACCIDENT/INCIDENT REPORT</u>

FORM. Also, an estimated cost of damage and photos of the incident need to be included. All information will then be submitted to the finance office. If private property is damaged, a police report must be included in the information submitted to the finance office. If an employee finds property that has been damaged by a private citizen, dispatch must be called, and a report filed.

If trends can be established, mitigation factors can be put in place to prevent future accidents. Employees must fill out the accident/incident report as thoroughly as possible for the Safety Coordinator to understand the scenario. Equally important is providing information on the report as to how the accident/incident could have been prevented. A recent study completed by the National Highway and Transportation Safety Administration shows that 94% of all car accidents are caused by human error, which means most accidents are preventable. Accident/incident reports will be forwarded on to the Safety Coordinator and placed in a master tracking log to track trends in personnel, departments, equipment, and specific operations.

2. Near Miss Reporting: Equally important as accident/incident reporting is near-miss reporting. Thousands of near misses occur each year and go unreported. Even though an injury or incident did not occur, it does not mean that one could not occur in the future. Examples are slipping on ice from a broken gutter or a missing guard on a piece of equipment. A "good catch form" is available from the Safety Coordinator to record near misses. If an employee has a near miss or sees a potential safety hazard, notify the supervisor, complete the good catch form and return to the Safety Coordinator to get the near miss or hazard placed on the master hazard log.

3. Injury Reporting and Procedures: Follow the below procedures for injury reporting.

Minor First Aid Treatment

First aid kits will be inspected as part of departmental inspections. If you sustain an injury or are involved in an accident requiring minor first aid, treatment follow this procedure:

- 1. Administer first aid treatment to the injury or wound.
- 2. If a first aid kit is used, indicate usage on the accident investigation report.
- 3. Access to a first aid kit is not intended to be a substitute for medical attention.
- 4. Inform your supervisor so the injury can be evaluated, and a decision made if further treatment may be necessary.
- 5. The supervisor will provide details for the completion of the accident report form.

Non-Emergency Medical Treatment

If you sustain an injury requiring treatment other than first aid:

- 1. Inform your supervisor.
- 2. Proceed to a clinic or medical facility to receive treatment. If possible, have a co-worker or supervisor drive you.
- 3. Provide details for the completion of the First Report of Injury form.

Emergency Medical Treatment

If you sustain a severe injury or you are witnesses to an injury requiring emergency treatment:

- 1. Call 911 and seek assistance from a co-worker or anyone available in the area. Notify those around you that an emergency exists and solicit help.
- 2. If you are injured, do not drive; call for help.
- 3. If you are providing transportation assistance, do not let the injured person drive.
- 4. If leaving the site to seek treatment, let those around you know that treatment is being sought, and where that treatment is being done.
- 5. Notify the department head, who will assure department procedures are being followed.
- 6. Provide details for the completion of the accident investigation report.

- 3. **Report of Unsafe Working Conditions:** Employees identifying an unsafe working condition will make every attempt to correct the condition immediately. If the condition cannot be corrected, the employee shall contact their immediate supervisor. A good catch form will be filled out and turned into the Safety Coordinator. Forms will be available in most department areas or by contacting the Safety Coordinator.
- 4. **Disciplinary Action:** Failure to follow safety policies and procedures may result in disciplinary action. Disciplinary action will follow the disciplinary process as outlined in the Personnel Policy Manual.

Active Threat

Overview

Workplace violence has emerged as an important safety and health issue in the workplace. Although a specific workplace violence rule has not been adopted, we recognize the impact workplace violence can have on our employees.

The Safety Coordinator and Chief of Police are responsible for periodically reviewing this plan, updating it as necessary, and implementing any changes where appropriate.

A copy of this plan shall be kept in an accessible location in all departments and be available for review by all employees. Also, this plan shall be kept in the safety coordinators office.

*This plan is a general plan that applies to all departments. Each department shall create its own anti-violence/security program based on each department's facilities and needs.

1. PURPOSE

This policy is issued to provide guidance in the event City of Deadwood employees are confronted with an active threat incident in or around the workplace. This policy is not specific to any one location but provides general concepts that are amplified in each facility's Emergency Action Plan (EAP).

2. POLICY STATEMENT

Active threat situations often end before law enforcement arrives. Therefore, individuals must be prepared to react to an active threat situation. This document guides employees and volunteers working within or in the area of a facility.

Note: This guidance is intended to provide an overview of how to respond to an active threat situation. **Employees should refer to the Emergency Action Plan for their specific work location and additional information.**

3. PROCEDURES

The following procedures will be followed at all locations during and after an active threat incident.

A. Employee Actions

All employees should consult the EAP specific to their work location for information on responding to an active threat incident. However, the following general principles will apply to all employees and volunteers.

1. "Run" (Evacuate)

- a. If there is an accessible escape path, attempt to evacuate per the EAP procedures, or any clear exit.
- b. Evacuation should occur whether or not others agree to follow.
- c. Leave your belongings behind.
- d. If possible, help others escape, but do not wait for others to leave.
- e. If possible, prevent individuals from entering an area where the active threat may be.
- f. Follow instructions from law enforcement officers.
- g. Keep your hands visible at all times.
- h. Do not attempt to move wounded people.
- i. Call 9-1-1 when it is safe to do so.
- j. Assist individuals that have Access and Functional Needs (AFN)
- k. Lead visitors to safety

2. "Hide"

- a. If evacuation is not possible, find a place to hide where the active threat is less likely to find you such as an office with a closed and locked door.
- b. Your hiding place should (1) be out of the active threats view, (2) provide protection if shots are fired in your direction, and (3) not trap you or restrict your options for movement.
- c. Lock the door and blockade it with heavy furniture to prevent an active threat from entering your work area.
- d. If an active threat is nearby (1) lock the door, (2) silence your cell phone or other electronic devices (DO NOT merely switch to vibrate), (3) turn off any source of noise, (4) hide behind large items (cabinets, desk furniture), and (5) remain quiet.
- e. Identify ad-hoc weapons if needed.

3. "Fight" (Take action against the active threat)

As a last resort, and only when your life is in imminent danger, attempt to disrupt or incapacitate the active threat by (1) acting as aggressively as possible against him or her, (2) throwing items and improvising weapons, (3) yelling, and (4) committing to your actions because your life may depend on it.

5. Contact Law Enforcement

- a. If you can run or hide, take the following steps:
 - 1. Keep calm
 - 2. Contact law enforcement if it is safe to do so.
 - 3. Dial 9-1-1.
 - 4. If you cannot speak, leave the phone line open to allow the dispatcher to listen to the incident.
 - 5. Do not assume someone else has called.

b. If you can communicate with law enforcement, report the following information:

- 1. Threat location, number of suspects, and direction of travel if known.
- 2. Whether or not the shooting was/is occurring.
- 3. If known, the threat(s) name and location.
- 4. Threat's description (race, gender, clothing, physical features).
- 5. Type of weapons (handgun, shotgun, long gun), backpacks or duffle bags, separate explosions from gunfire, IEDs, etc.
- 6. The building name and room number of your location.
- 7. The number of people at your specific location.
- 8. Causalities including the number of persons injured and types of injuries.

B. Law Enforcement Arrival

Law enforcement's priority is to stop the active threat. The first officers to arrive at the scene will not attend injured persons. Rescue teams of additional officers and emergency medical personnel will follow and attend to the injured.

1. How to React When Law Enforcement Arrives:

- a. Follow officers' instructions.
- b. Put down any items in your hands (i.e., bags, jackets, cell phones, improvised weapons).
- c. Immediately raise hands and spread fingers.
- d. Keep your hands visible at all times.
- e. Avoid making quick movements toward officers such as attempting to hold on to them for safety.
- f. Avoid pointing, screaming, or yelling.
- g. Do not stop to ask officers for help or directions when evacuating. Instead proceed in the direction from which officers are entering the premises, or as directed.

2. Interacting with Law Enforcement after an active threat Incident:

When the active shooter incident concludes, law enforcement will treat the entire workplace as a crime scene and may require employees to remain in the area until all witnesses have been identified and questioned.

C. Management Preparedness Actions

1. Emergency Action Plan (EAP)

Managers will familiarize themselves with their work location EAP before an emergency and make the EAP available to their employees and others assigned to the location. Additional activities at each work location will be:

- a. Develop and conduct training and exercises in coordination with the Police Department and the Safety Coordinator specific to each work location.
- b. Update the EAP annually and as needed post-incident.

2. Post-Incident

- a. Account for all individuals.
- b. Notify family members of the injured or deceased.
- c. Activate the reunification program for families and loved ones of those injured or deceased.
- d. Assess mental health needs and contact resources to assist as needed.
- e. Assess personnel gaps in critical areas and restore operations as soon as feasible.
- f. Conduct re-training as required.
- g. Activate media relations through the Legal Department or appropriate law enforcement agency.
- h. If available, allow the City Attorney to address the media.

Confined Space Entry Policy

Overview

This policy has been developed to protect employees from the serious hazards associated with entering and working within confined spaces such as manholes, vaults, tunnels, and tanks. This policy establishes a permit-required confined space program to regulate entry into confined spaces and to ensure the safety of employees who enter or work in confined spaces.

Definitions

Attendant. A trained individual, as required by this policy, stationed outside a permitrequired confined space that monitors the authorized entrants inside the space. An attendant has the authority to order exit from a permit-required confined space.

Authorized Entrant. A trained individual, as required by this policy, who is authorized by the entry permit to enter a permit-required confined space.

Confined Space. A space that: (1) is large enough and so configured that an employee can bodily enter and perform assigned work; (2) has limited or restricted means for entry or exit; and (3) is not designed for continuous employee occupancy. [Note: Not all confined spaces require permits for entry. See the definition of a permit-required confined space.]

Entry. The act by which any part of a person's body passes through the plane of an opening into a permit-required confined space.

Entry Supervisor. A trained individual, as required by this policy, who is responsible for: (1) determining if acceptable entry conditions are present at a permit-required confined space; (2) authorizing entry and overseeing entry operations; and (3) terminating entry.

Entry Permit. The written document that allows and controls entry into a permit-required confined space. These permits can be obtained from the Safety Coordinator or supervisor.

Hazardous Atmosphere. An atmosphere that may expose employees to a risk of death, injury, incapacitation, impairment of the ability to escape unaided, or acute illness from one or more of the following causes: (1) flammable gas, vapor, or mist above 10% of the lower explosive limit (LEL); (2) airborne combustible dust concentration that obscures vision at a distance of five feet or less; (3) atmospheric oxygen concentration below 19.5% or above 23.5%; (4) the atmospheric concentration of any substance that would result in employee exposure above the PEL, ACGIH TLV, or an exposure level considered unacceptable by the Department of Environmental Health and Safety (whichever is more protective); or (5) any other atmospheric condition immediately dangerous to life and health.

Hot Work. Work that results in a source of ignition, such as welding, cutting, burning, or heating. Such work in a permit-required confined space must be approved by the supervisor.

Permit-Required Confined Space. 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 with 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 a floor which slopes downward and tapers to a smaller cross-section; or (4) contains any other recognized serious safety or health hazard.

The following is a partial listing of spaces that are typically considered permit-required confined spaces:

- a. Sewer/Storm manholes
- b. Electrical manholes
- c. Steam pits
- d. Heat Plant boilers
- e. Telephone vaults
- f. Several Water Pollution Control lift/pump stations
- g. Water meter pits
- h. Street manways
- i. Process tanks and related equipment

[Note: Confined spaces that normally present no hazards can become permit-required if hazards are introduced into the confined space (e.g., by painting or cleaning with solvent-based products, by welding, etc.)]

Retrieval System. The equipment used for the non-entry rescue of persons from permitrequired confined spaces. The system includes a line or rope attached at one end to the back "D" ring (or 2 shoulder "D" rings) of a full-body harness worn by an authorized entrant, and with its other end attached to a mechanical lifting device or a fixed point outside the permit-required confined space. A mechanical lifting device is required for all vertical entries greater than 5 feet in depth. A harness and retrieval line is required in all permitrequired confined space entries unless attachment increases the hazard potential to the entrant (a harness may still be required).

Procedures for Confined Space Entry

- 1. An individual anticipating the need to enter a confined space must contact the appropriate Entry Supervisor and receive a completed written permit before such an entry.
- 2. The individual requesting the permit will review the department's job hazard analysis for confined space entry.

- 3. The entry supervisor will complete and approve the permit and verify that equipment, monitoring, training, and other safety procedures (e.g., lockout/tagout) are adequate for safe entry and work tasks.
- 4. In an emergency, when such an entry cannot be scheduled in advance and the Entry Supervisor is not available, the individual seeking a permit will contact the department head or Safety Coordinator.
- 5. Before entry, the entry supervisor will verify that the entrant and attendant are aware of the following:
 - a. The hazards of the permit space;
 - b. The measures for isolation of the permit space;
 - c. The measures (such as lockout/tagout, equipment and procedures for purging, inserting, ventilation, and flushing, etc.) used to remove or control potential hazards;
 - d. Acceptable environmental conditions which must be maintained during entry;
 - e. Testing and monitoring equipment and procedures required to verify that acceptable environmental conditions are being maintained during entry;
 - f. The rescue and other services which would be summoned in case of emergency and the means of communication with those services;
 - g. Rescue equipment to be provided on-site, if necessary;
 - h. The communication procedures and equipment used by authorized entrants and attendants to maintain contact;
 - i. The personal protective equipment, such as hard hats, clothing, harnesses, and retrieval lines provided to ensure employee safety. Respirator use will be per the established policy. The need for non-sparking tools will be considered by the permit-authorizing official; and
 - j. The fact that the entry supervisor also has the authority to oversee activities during the entry.

Required Notifications Before Confined Space Entry

- 1. Facilities Operations
 - a. Before a permitted confined space entry, the attendant or entrant must notify the facility of the planned entry.
 - b. Notification to the facility shall include the exact location of the space (e.g., NE corner of WWTP), the name of the caller, and the estimated duration of the entry.
 - c. Upon completion of the entry, the attendant or entrant must notify the facility that entry operations have been completed in the confined space.
 - d. After entry operations, the completed permit must be kept on file with the department superintendent for a minimum of one year.

Duties and Training Requirements

1. Authorized Entrants

The person(s) authorized to enter a confined space will be responsible for and receive training in the following:

- a. The knowledge of hazards that may be faced during entry, including the mode, signs or symptoms, and consequences of the exposure.
- b. Proper use of equipment, which includes:
 - 1. Atmospheric testing and monitoring equipment.
 - 2. Ventilating equipment needed to obtain acceptable entry conditions.
 - 3. Communication equipment necessary to maintain contact with the authorized attendant.
 - 4. Personal protective equipment, as needed.
 - 5. Lighting equipment, as needed.
 - 6. Barriers and shields, as needed.
 - 7. Equipment, such as ladders, needed for safe ingress and egress.
 - 8. Rescue and emergency equipment, as needed.
 - 9. Any other equipment that is necessary for safe entry into and rescue from permit spaces.
- c. Communication with the attendant to enable the attendant to monitor entrant status and to enable the attendant to alert entrants of the need to evacuate the space if required.
- d. Alerting the authorized attendant whenever:
 - 1. The entrant recognizes any warning sign or symptom of exposure to a dangerous situation, or
 - 2. The entrant detects a condition prohibited by the permit.
- e. Exiting the permit space as quickly as possible whenever:
 - 1. An order to evacuate has been given by the attendant or the entry approver;
 - 2. The entrant recognizes any warning sign or symptom of exposure to a dangerous situation;
 - 3. The entrant detects a prohibited condition; or
 - 4. An evacuation alarm is activated.
- 2. Authorized Attendants

Persons authorized to perform duties as authorized attendants will be responsible for and receive training in the following:

- a. Knowing the hazards that may be faced during entry, including information on the mode, signs or symptoms, and consequences of exposure.
- b. Being aware of possible behavioral effects of hazard exposure in authorized entrants.
- c. 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.
- d. Remaining outside the permit space during entry operations until relieved by another attendant.
- e. Attempting non-entry rescue if proper equipment is in place and the rescue attempt will not present further hazards to the entrant or attendant.
- f. Communicating with authorized entrants to monitor entrant status and to alert entrants of the need to evacuate the space when conditions warrant.
- g. 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:
 - 1. If the attendant detects a prohibited condition.
 - 2. If the attendant detects the behavioral effects of hazard exposure in an authorized entrant.
 - 3. If the attendant detects a situation outside the space that could endanger the authorized entrants.
 - 4. If the attendant cannot effectively and safely perform all the duties required by this program.
- h. Summoning rescue services as soon as the attendant determines that authorized entrants may need assistance to escape from permit space hazards.
- i. Taking the following actions when unauthorized persons approach or enter a permit space while entry is underway:
 - 1. Warning the unauthorized persons that they must stay away from the permit space.
 - 2. Advising the unauthorized persons that they must exit immediately if they have entered the permit space.
 - 3. Informing the authorized entrants and the entry approver if unauthorized persons have entered the permit space.
- j. Performing no duties that might interfere with the attendant's primary duty to monitor and protect the authorized entrants.
- 3. Entry Supervisors

Persons authorized to perform duties as entry approvers will be responsible for and receive training in the following:

- a. Determining that the entry permit contains the required information before authorizing or allowing entry.
- b. Determining that the necessary procedures, practices, and equipment for safe entry, as indicated on the permit, are in effect before allowing entry.
- c. Determining, at appropriate intervals, that entry operations remain consistent with the terms of the entry permit and that acceptable entry conditions are present.
- d. Canceling the entry authorization and terminating entry whenever acceptable entry conditions are not present.
- e. Taking the necessary measures for concluding an entry operation, such as closing off a permit space and canceling the permit, once the work authorized by the permit has been completed.

Employees may alternate duties as entrants, attendants, and/or entry approvers provided they have received training in each designation. Any permit space entry must have at least two individuals present: e.g., an authorized entrant and authorized attendant who serve as the entry supervisor.

Entry Supervisors will receive training in each designation of the authorized entrant and attendant.

4. Rescue Team Members

<u>Under no circumstance will the attendant attempt to rescue the entrant in an</u> <u>emergency. Call 9-1-1</u>.

The local fire department is the designated rescue team for confined space emergencies. Each rescue team member will receive training in each designation of the authorized entrant, attendant, and entry approver. Also, each member of the rescue team will be certified in both first aid and CPR.

Hands-on practice rescues will be conducted by the rescue team members in simulated confined spaces representative of the permit spaces present.

Outside Contractors

1. This Policy must be made available for review to all prospective bidders of a contract involving activities subject to confined space operations.

The City of Deadwood may:

- a. Inform the contractor that the workplace contains permit spaces and that permit space entry is allowed only through compliance with a permit space program.
- b. Apprise the contractor of the potential hazards associated with the spaces that make them permit spaces.

- c. Apprise the contractor of any precautions or procedures that will be used to protect employees in or near permit spaces where contractor personnel will be working.
- d. Coordinate entry operations with the contractor, when the contractor personnel will be working in or near permit spaces.
- e. Debrief the contractor, after entry operations, on the procedures followed, and any hazards confronted or created during entry.

City of Deadwood Responsibilities

Departments will:

- 1. Identify all known permit-required confined spaces for work areas in each shop, division, or unit within their department. Contact the Safety Coordinator for assistance in identifying potential permit spaces.
- 2. Prevent unauthorized entry into permit spaces by ensuring that danger signs are posted at the entrance of every permit-required confined space which:
 - a. can be entered without the use of a special tool or key; or
 - b. can be entered by persons not authorized under this policy to enter the space.

Danger signs will read:

DANGER

PERMIT-REQUIRED CONFINED SPACE

DO NOT ENTER

- 3. Conduct periodic surveys of work areas to determine if any new permit-required confined spaces have been discovered or created in their work areas. Departments must notify the Safety Coordinator whenever new permit-required confined spaces are encountered and should request assistance in identifying and evaluating these spaces.
- 4. Ensure that all employees whose duties require them to work in or around permitrequired confined spaces receive appropriate confined space training before engaging in the work.

- 5. Procure and ensure the use of the equipment necessary for safe entry into permitrequired confined spaces including:
 - a. Gas detection/monitoring equipment
 - b. Appropriate personal protective equipment (e.g., protective clothing, gloves, boots, goggles, hearing protection, etc.)
 - c. Ventilation equipment
 - d. Communications equipment (e.g., two-way radios)
 - e. Lighting
 - f. Ladders or other equipment for safe ingress and egress
 - g. Barricades, barriers, and/or shields
 - h. Emergency rescue/retrieval equipment (including full-body harnesses and mechanical retrieval devices)

When contracting with outside firms, comply with the Outside Contractor section of this program.

Supervisors will:

- 1. Notify employees of the Confined Space Entry Policy and make the policy readily available to them.
- 2. Identify and schedule all affected employees for <u>initial</u> training in Confined Space Entry with the Safety Coordinator.
- 3. Schedule employees for <u>retraining</u> with the Safety Coordinator whenever retraining appears necessary due to changes in the workplace or whenever an observation or inspection indicates an employee is not following proper confined space entry procedures or lacks understanding of the proper procedures.
- 4. Maintain copies of attendance records of training sessions.

Authorized Entrants and Attendants will:

- 1. Familiarize yourself and comply with the Confined Space Entry Policy.
- 2. Attend training sessions, as required by the policy.
- 3. Notify supervisors of any change in their workplace or job duties which prevent or hinder safe entries into confined spaces.
- 4. Carry out their assigned duties during confined space entries, according to this policy.

Entry Supervisors will:

- 1. Issue confined space permits per this policy.
- 2. Verify that proper training has been completed before entry for entrants, attendants, and the entry approver.
- 3. Attend training sessions, as required by this policy.

Safety Coordinator will:

- 1. Develop, implement, and maintain the Confined Space Entry Policy.
- 2. Perform annual reviews to evaluate the conformance to and adequacy of the confined space program.
- 3. Provide training for all aspects of confined space entry, as required by the policy.
- 4. Assist in hazard identification, equipment selection, and other technical support related to confined space entries, as needed.
- 5. Maintain attendance records of training sessions.
- 6. Maintain copies of completed permits.

Control of Hazardous Energy (Lockout/Tagout)

Overview

The Lockout/Tagout (LOTO) program establishes practices and procedures for the control of hazardous energy. All equipment with the potential for unexpected start-up during routine adjustment or maintenance is subject to the requirements of this program.

Implementation of this procedure shall ensure that all energy sources are completely isolated and locked out before the servicing of equipment. All potential sources of hazardous energy shall be identified before working on the subject equipment.

Definitions

- Authorized employee: A person who locks out or tags out machines or equipment to perform servicing or maintenance on that machine or equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance covered by this program.
- **Capable of being locked out:** An energy isolating device is capable of being locked out if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it. Other energy isolating devices are capable of being locked out if lockout can be achieved without the need to dismantle, rebuild, or replace the energy-isolating device or permanently alter its energy control capability.

Energized: Connected to an energy source or containing residual or stored energy.

Energy isolating device: A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following: (1) A manually operated electrical circuit breaker; (2) A disconnect switch; (3) A manually operated switch by which the conductors of a circuit can be disconnected from all ungrounded supply conductors and, no pole can be operated independently; (4) A line valve; (5) A block; or (6) Any similar device used to block or isolate energy.

Push buttons, selector switches, and other control circuit type devices are not energy isolating devices.

Energy source: Any source for electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

Live-Dead-Live rule: A test for zero energy state where the operator tries to start the

equipment, then shuts it down, then tries to start it again.

- **Lockout:** The placement of a lockout device on an energy-isolating device per an established procedure, ensuring that the energy isolating device and the equipment being controlled cannot be operated until the lockout device is removed.
- Lockout device: A device that utilizes a positive means such as a lock either key or combination type — to hold an energy-isolating device in the safe position and prevent the energizing of machines or equipment. Included are blank flanges and bolted slip blinds.
- **Normal production operations:** The utilization of a machine or equipment to perform its intended production function.
- **Qualified Person:** One familiar with construction, the operation of equipment, and the hazards involved. A qualified person has the skills and techniques to distinguish live parts from other parts of electric equipment. This person can determine the nominal voltage of exposed live parts and can maintain the clearance distances that will be specified for the voltages on which they will be working.
- **Servicing and/or maintenance:** Workplace activities such as constructing, installing, setting up, adjusting, inspecting, modifying, and maintaining or servicing machines or equipment. These activities include lubrication, cleaning, or unjamming machines or equipment and making adjustments or tool changes, where the employee may be exposed to the unexpected energization or start-up of the equipment or release of hazardous energy.
- **Tagout:** The placement of a tagout device on an energy-isolating device per an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.
- **Tagout device:** A prominent warning device, such as a tag and a means of attachment, which can be securely fastened to an energy-isolating device per an established procedure, to indicate that the energy isolating device and the equipment being controlled may not be operated until the tagout device is removed.

When LOTO Applies

- 1. LOTO applies and must occur when servicing takes place during production operations and when any of the following conditions exist:
 - a. The employee must bypass guards or interlocks to perform the repair at the point of operation;

- b. The employee must place part of his or her body in contact with the point of operation source; or
- c. The employee has to place any part of his or her body into a danger zone.
- 2. We realize that some work, such as troubleshooting, must occur on the job. When it does, provisions for employee safety must be made.

Responsibilities and Authorities

Supervisors will:

- 1. Ensure that employees de-energize equipment before working on it when the potential for unexpected release of energy exists.
- 2. Ensure that employees are aware of the lockout/tagout procedures for equipment relative to the project on which they are working.
- 3. Inform employees in their area of responsibility when equipment is being locked out/tagged out for repair.
- 4. Ensure that no employees attempt to restart equipment until it is verified that it is safe to do so following repair of the equipment using lockout/tag out procedures.
- 5. Verify that all qualified persons in their area have had the appropriate lockout/tag out training.

Safety Coordinator will:

- 1. Ensure that all employees involved in the lockout/tagout program have had appropriate training.
- 2. Review the lockout/tagout program for compliance on an annual basis at a minimum.
- 3. Maintain and revise the LOTO program as required.
- 4. Direct the LOTO training program.

Qualified Persons will:

- 1. Repair or service equipment as needed.
- 2. Ensure, where feasible, that all energy sources are locked out on a piece of equipment during repair or service.
- 3. Test equipment to verify that no residual energy exists following lockout and before working on the subject equipment.
- 4. Place a "Danger Do Not Operate" tag on the energy source and/or control panel before working on the subject equipment.
- 5. Obtain assistance when necessary to properly repair or service a piece of equipment.
- 5. Remove locks and/or tags following the repair or servicing of subject equipment.
- 6. Coordinate multi-shift repair with the next shift to work on the equipment.
Program Elements

De-Energizing Equipment

- 1. Safe procedures that address de-energizing circuits and equipment must be used in LOTO.
- 2. The electricians performing LOTO will use the appropriate testing devices on the circuits according to the voltage level.
 - a. **"STOP"** buttons, interlocks, or other devices on equipment **are not** acceptable LOTO devices.
- 3. Stored electrical energy will be dissipated to ensure workers are not endangered.
 - a. Capacitors will be discharged. High capacitance elements need to be shortcircuited and grounded if they pose hazards to personnel.
 - b. Stored non-electrical energy that could re-energize the electrical circuits shall be blocked or relieved to the extent possible.

Application of Locks and Tags

- 1. Locks and tags will be placed on equipment used to de-energize circuits and equipment on which the work is to be performed.
- 2. The lock will be attached to assure that unauthorized personnel cannot re-open the circuit.
 - a. The tag ("DANGER DO NOT OPERATE") must state that unauthorized use is forbidden and that the tag cannot be removed.
- 3. Only the person who applied the lock(s) and tag(s) may remove the LOTO devices. The only instance in which a LOTO device may be removed exists when:
 - a. The employee is not at work to remove it **and** the "qualified person" contacts the employee to assure it is all right to remove his or her LOTO device.
 - b. The qualified person then must verify that all employees are clear of the circuits and equipment when it is re-energized.
- 4. Equipment that was not designed to accept locks must be tagged out of service.
 - a. This can only be done when you can demonstrate that tagging will provide an equivalent means of safety.
 - b. Equivalent means of safety can be the removal of an isolating circuit element, the opening of an extra disconnecting device, or blocking a controlling switch.
- 5. "Locks Only" can be used under the following conditions:
 - a. When one circuit or piece of equipment is de-energized;
 - b. When the work does not extend beyond the work shift; and
 - c. When employees working around the circuit are familiar with the procedure.

Verifying De-Energized Conditions

1. The qualified person must verify that the equipment or controls cannot be restarted by testing the equipment, controls, or circuits with appropriate testing devices.

- 2. Testing procedures shall also verify that equipment that is back fed or has induced voltages has indeed been de-energized.
 - a. The qualified person shall verify any alternate sources of power that could be introduced into the electrical circuit.
 - b. The qualified person shall check voltage systems greater than 600 v, nominal, immediately after testing.

Re-Energizing Equipment

- 1. The qualified person must perform tests and visual inspections that assure that the reenergization can take place.
 - a. All electrical jumpers, grounds, shorts, and other devices must be removed before re-energization.
 - b. Employees who are present at the re-energization shall be informed of any hazards and warned to stay clear of the process.

Training

- 1. There are three types of employees: *authorized, affected,* and *all*. LOTO training is based on the relationship of the equipment being de-energized and the degree of knowledge that employees possess with regards to hazardous energy.
 - a. **"Authorized"** employees perform the actual energy control procedure. They know the details and how the hazards will be controlled and isolated. These are usually electricians or other maintenance crafts.
 - b. **"Affected"** employees are those who use the equipment that is undergoing repair. They will be in the area during the repair.
 - c. **"All"** employees refer to any employee on the job site. They need to understand the importance of LOTO.
- 2. Training includes the initial training, retraining, and certification. Authorized or affected employees will be retrained:
 - a. When job assignments change;
 - b. When new hazards are introduced into the work environment;
 - c. When energy control procedures change; and
 - d. When periodic inspections reveal any deficiencies in the program.

Fire Prevention Plan

Objective

The purpose of this Fire Prevention Plan is to eliminate the causes of fire, prevent loss of life and property by fire. It provides employees with information and guidelines that will assist them in recognizing, reporting, and controlling fire hazards.

Background

The City of Deadwood is committed to minimizing the threat of fire to employees, visitors, and property. Each department's Emergency Action Plan spells out the procedures for responding to fires. This Fire Prevention Plan serves to reduce the risk of fires at our facilities by:

- 1. identifying materials that are potential fire hazards and their proper handling and storage procedures;
- 2. distinguishing potential ignition sources and the proper control procedures of those materials;
- 3. describing fire protection equipment and/or systems used to control fire hazards;
- 4. identifying persons responsible for maintaining the equipment and systems installed to prevent or control ignition of fires;
- 5. identifying persons responsible for the control and accumulation of flammable or combustible material;
- describing good housekeeping procedures necessary to ensure the control of accumulated flammable and combustible waste material and residues to avoid a fire emergency; and
- 7. providing training to employees concerning fire hazards to which they may be exposed.

Responsibility

Fire safety is everyone's responsibility. All employees should know how to prevent and respond to fires and are responsible for adhering to the plan regarding fire emergencies.

- 1. The **Safety Coordinator**, with assistance from the fire department and building inspector, shall manage the Fire Prevention Plan and shall maintain all records pertaining to the plan. The Safety Coordinator shall also:
 - a. Develop and administer the fire prevention training program.
 - b. Ensure that fire control equipment and systems are properly maintained.
 - c. Control fuel source hazards.
 - d. Conduct fire risk surveys (see Appendix A) and make recommendations.

- Supervisors are responsible for ensuring that employees receive appropriate fire safety training and for notifying the Safety Coordinator when changes in operation increase the risk of fire. Supervisors are also responsible for enforcing the fire prevention and protection policies.
- 3. All employees shall:
 - a. Complete all required training before working without supervision.
 - b. Conduct operations safely to limit the risk of fire.
 - c. Report potential fire hazards to their supervisors.
 - d. Follow fire emergency procedures.

Plan Implementation

1. Good Housekeeping

To limit the risk of fires, employees shall take the following precautions:

- a. Minimize the storage of combustible materials.
- b. Make sure that doors, hallways, stairs, and other exit routes are kept free of obstructions.
- c. Dispose of highly combustible waste in covered, airtight, metal containers.
- d. Use and store flammable materials in well-ventilated areas away from ignition sources.
- e. Limit the use of flammable cleaning products.
- f. Keep incompatible (i.e. chemically reactive) substances away from each other.
- g. Perform "hot work" (i.e. welding or working with an open flame or other ignition sources) in controlled and well-ventilated areas.
- h. Keep equipment in good working order (i.e. inspect electrical wiring and appliances regularly and keep motors and machine tools free of dust and grease).
- i. Ensure that heating units are safeguarded.
- j. Report all gas leaks immediately to their immediate supervisor. The supervisor shall ensure that all gas leaks are repaired immediately upon notification.
- k. Repair and clean up flammable liquid leaks immediately.
- I. Keep work areas free of dust, lint, sawdust, scraps, and similar material.
- m. Do not rely on extension cords as a permanent electrical solution and do not overload circuits with multiple pieces of equipment.
- n. Turn off electrical equipment when not in use.
- o. If an extension cord is damaged or the grounding pin is removed, do not use the cord. Do not try to rewire a new plug. Remove the cord from service and replace it with a new cord.

2. Maintenance

Supervisors will ensure that equipment is maintained according to manufacturers' specifications. Only properly trained individuals shall perform maintenance work.

The following equipment is subject to the maintenance, inspection, and testing procedures:

- a. equipment installed to detect fuel leaks, control heating, and control pressurized systems;
- b. portable fire extinguishers, automatic sprinkler systems, and fixed extinguishing systems;
- c. detection systems for smoke, heat, or flame;
- d. fire alarm systems; and
- e. emergency backup systems and the equipment they support.

Types of Hazards

The following sections address the major workplace fire hazards at the facilities and the procedures for controlling the hazards.

1. Electrical Fire Hazards

Electrical system failures and the misuse of electrical equipment are the leading causes of workplace fires. Fires can result from loose ground connections, wiring with frayed insulation, or overloaded fuses, circuits, motors, or outlets.

To prevent electrical fires, employees shall:

- a. Make sure that worn wires are replaced.
- b. Use only appropriately rated fuses.
- c. Never use extension cords as substitutes for wiring improvements.
- d. Use only approved extension cords (i.e. those with the Underwriters Laboratory (UL) or Factory Mutual (FM) label).
- e. Check the wiring in hazardous locations where the risk of fire is especially high.
- f. Check electrical equipment to ensure that it is either properly grounded or double insulated.
- g. Ensure adequate spacing while performing maintenance.
- 2. Portable Heaters

All portable heaters shall be approved by the fire chief or his/her designee. Portable electric heaters shall have tip-over protection that automatically shuts off the unit when it is tipped over. There shall be adequate clearance between the heater and combustible furnishings or other materials at all times.

3. Office Fire Hazards

Fire risks are not limited to the industrial facilities. Fires in offices have become more likely because of the increased use of electrical equipment, such as computers and fax machines.

To prevent office fires, employees shall:

- a. Avoid overloading circuits with office equipment.
- b. Turn off nonessential electrical equipment at the end of each workday.
- c. Keep storage areas clear of rubbish.
- d. Ensure that extension cords are not placed under carpets.
- e. Ensure that trash and paper set aside for recycling is not allowed to accumulate.
- f. If possible, replace temporary extension cords with a permanent wiring solution.
- 4. Cutting, Welding, and Open Flame Work

Supervisors will ensure the following:

- a. Cutting and welding are done by authorized personnel in designated cutting and welding areas whenever possible.
- b. Adequate ventilation is provided.
- c. Torches, regulators, pressure-reducing valves, and manifolds are UL listed or FM approved.
- d. Oxygen-fuel gas systems are equipped with listed and/or approved backflow valves and pressure-relief devices.
- e. Cutters, welders, and helpers are wearing eye protection and protective clothing as appropriate.
- f. Cutting or welding is prohibited in areas where explosive atmospheres of gases, vapors, or dust could develop from residues or accumulations in confined spaces.
- g. Cutting or welding is prohibited on metal walls, ceilings, or roofs built of combustible sandwich-type panel construction or having combustible covering.
- h. Confined spaces such as tanks are tested to ensure that the atmosphere is not over 10 percent of the lower flammable limit before cutting or welding in or on the tank.
- i. Small tanks, piping, or containers that cannot be entered are cleaned, purged, and tested before cutting or welding on them begins.

5. Flammable and Combustible Materials

Supervisors shall regularly evaluate the presence of combustible materials at the facilities (see Appendix D).

Certain types of substances can ignite at relatively low temperatures or pose a risk of catastrophic explosion if ignited. Such substances require special care and handling.

a. Class A combustibles.

These include common combustible materials (wood, paper, cloth, rubber, and plastics) that can act as fuel and are found in non-specialized areas such as offices.

To handle Class A combustibles safely:

- 1. Dispose of waste daily.
- 2. Keep work areas clean and free of fuel paths that could allow a fire to spread.
- 3. Keep combustibles away from accidental ignition sources, such as hot plates, soldering irons, or other heat- or spark-producing devices.
- 4. Do not order excessive amounts of combustibles.
- 5. Make frequent inspections to anticipate fires before they start.

Water, multi-purpose dry chemical (ABC), and halon 1211 are approved fire extinguishing agents for Class A combustibles.

b. Class B combustibles.

These include flammable and combustible liquids (oils, greases, tars, oil-based paints, and lacquers), flammable gases, and flammable aerosols.

To handle Class B combustibles safely:

- 1. Use only approved pumps, taking suction from the top, to dispense liquids from tanks, drums, barrels, or similar containers (or use approved self-closing valves or faucets).
- 2. Do not dispense Class B flammable liquids into containers unless the nozzle and container are electrically interconnected by contact or by a bonding wire. Either the tank or container must be grounded.
- 3. Store, handle, and use Class B combustibles only in approved locations where vapors are prevented from reaching ignition sources such as heating or electric equipment, open flames, or mechanical or electric sparks.
- 4. Do not use a flammable liquid as a cleaning agent inside a building (the only exception is in a closed machine approved for cleaning with flammable liquids).
- 5. Do not use, handle, or store Class B combustibles near exits, stairs, or any other areas normally used as exits.
- 6. Do not weld, cut, grind, or use unsafe electrical appliances or equipment near Class B combustibles.
- 7. Do not generate heat nor allow an open flame or smoke near Class B combustibles.

- 8. Know the location of and how to use the nearest portable fire extinguisher rated for Class B fire.
- 9. Soiled rags containing Class B combustibles should be placed in metal storage bins after use.

Water should not be used to extinguish Class B fires caused by flammable liquids. Water can cause the burning liquid to spread, making the fire worse. To extinguish a fire caused by flammable liquids, exclude the air around the burning liquid. The following fire-extinguishing agents are approved for Class B combustibles: carbon dioxide, multi-purpose dry chemical (ABC), halon 1301, and halon 1211. (**NOTE:** Halon has been determined to be an ozone-depleting substance and is no longer being manufactured. Existing systems using halon can be kept in place.)

6. Smoking

Smoking is prohibited in all buildings. Certain outdoor areas may be designated as no-smoking areas. The areas in which smoking is prohibited outdoors are identified by NO SMOKING signs. Smoking is prohibited in all vehicles and equipment.

Training

The Safety Coordinator shall present basic fire prevention training to all employees upon employment, and shall maintain documentation of the training, which includes:

- 1. This Fire Prevention Plan, including how it can be accessed;
- 2. Good housekeeping practices;
- 3. Proper response and notification in the event of a fire;
- 4. Instruction on the use of portable fire extinguishers (as determined by policy in the Emergency Action Plan); and
- 5. Recognition of potential fire hazards.

Supervisors shall train employees about the fire hazards associated with the specific materials and processes to which they are exposed and will maintain documentation of the training. Employees will receive this training:

- 1. At their initial assignment;
- 2. Annually; and
- 3. When changes in work processes necessitate additional training.

Program Review

The Safety Coordinator, with assistance from the Fire Chief, shall review this Fire Prevention Plan at least annually for necessary changes.

Emergency Action Plan

Overview

This Emergency Action and Fire Prevention Plans are in place to cover those designated actions employers and employees must take to ensure employee safety during a medical, fire, and other emergencies and steps to take for the prevention of fires within the facility.

This EAP is a general template for use throughout the City of Deadwood. Each department is required to implement EAPs at each of its facilities. Department Heads and the Safety Coordinator are responsible for the implementation, training, and maintenance of these plans.

These plans shall be maintained at the facility and be made available for review by employees.

Elements

- 1. The emergency escape route will be conspicuously posted and emergency exits clearly marked.
 - a. In the event of an emergency requiring the evacuation of the premises, evacuation instructions will be given via voice commands.
- 2. Procedures to account for all employees after emergency evacuation has been completed:
 - a. In the event of an evacuation, all employees will assemble as soon as practical in the area designated in the EAP.
 - b. Once all employees have congregated at the meeting place, there will be an accounting of employees, to ensure everyone has been evacuated.
- 3. Preferred means of reporting fires and other emergencies:
 - a. 9-1-1 will be called to notify the Fire Department.
 - b. Any additional emergency numbers will be posted by each telephone.
 - c. The facility supervisor shall advise each employee of his or her responsibility under the plan:
 - 1. Initially when the plan is developed;
 - 2. Whenever the employee's responsibilities or designated actions under the plan change; and
 - 3. Whenever the plan is changed.
 - 4. The employer shall review with each employee upon initial assignment those parts of the plan which the employee must know to protect him or herself in the event of an emergency, including alarm systems.

Fire Emergencies

- 1. All employees shall be familiar with fire evacuation procedures.
- 2. A floor plan identifying escape routes and locations of fire extinguishers will be placed conspicuously.
- 3. Department leadership will discuss fire evacuation procedures as frequently as necessary, but at least once per quarter.

If you discover a fire:

- 1. Stay calm, and above all, do not jeopardize your safety.
- 2. Activate the nearest fire alarm and alert employees in the immediate area about the fire when it is safe to do so.
- 3. Call the fire department at 9-1-1 if applicable.
- 4. Remove anyone in immediate danger.
- 5. Confine the fire by closing windows and doors, as much as possible as you exit.
- 6. <u>No employee should attempt to fight a fire that cannot be reasonably fought with a</u> <u>portable fire extinguisher. Employees must exit the facility as soon as possible.</u>

Evacuation due to Fire

- 1. If the fire cannot be immediately contained, evacuate the facility. Consider the possibility of toxic fumes or explosions from burning materials and especially from the compressed gas.
- 2. Stay low when moving through the smoke.
- 3. When passing through an exit, move quickly away from the exit to avoid creating a bottleneck that slows the escape of others.
- 4. If you are trapped inside a room, keep the doors closed and seal any cracks with wet towels, if possible.
 - a. Open a window for air and call for help. Do not break the glass unless absolutely necessary (outside smoke could be drawn into the room).
 - b. Do not panic or jump.
 - c. Close as many doors between you and the fire as possible.
- 5. Do not reenter the building after you have exited, but proceed directly to the designated assembly area identified in the EAP.
- 6. Follow the directions of the supervisors present and the emergency personnel at the scene.
- 7. If someone is missing, do not attempt to reenter the building. Notify the firefighters or emergency personnel at the scene, and describe where the person was last seen.

Weather

Severe weather occurs more frequently in the spring and early summer months, although they can occur at any time. Supervisors should pay close attention to weather reports during tornado "season" and be prepared to implement appropriate emergency procedures when notified by local authorities or the sounding of tornado sirens.

If you are inside:

- 1. Proceed to a central hallway of the building, if possible.
- 2. If there is no time, crouch under a desk or table, away from windows or glass dividers.
- 3. Stay away from tall objects, such as file cabinets.

If you are outside:

1. Seek shelter if available in a nearby building, if no building is available, seek cover in lowlying depressions away from buildings, trees, telephones, and electric lines.

Contact the Safety Coordinator for examples of emergency action plans to use as examples for each department.

Ergonomics

Overview

The City of Deadwood recognizes the potential of ergonomic stressors to adversely impact worker health and safety and has established controls to reduce the duration, frequency, and severity of exposure to ergonomic stressors.

The objectives of this Ergonomics Program are to improve the work environment surrounding each employee using a multi-disciplinary approach to enhance human performance and to reduce the occurrence of ergonomic-related disorders.

Definitions

- **Cumulative Trauma Disorder (CTD):** Health disorders that may arise from repeated biomechanical stress due to ergonomic stressors.
- **Ergonomic Risk Factors:** Conditions of a job, process, or operation that contribute to the risk of developing CTDs. Examples include repetitiveness of activity, the force required, and awkwardness of posture. Risk factors are regarded as synergistic elements of ergonomic hazards, which must be considered in light of their combined effect in inducing CTDs. Jobs, operations, or workstations that have multiple risk factors will have a higher probability of causing CTDs, depending on the relative degree of severity of each factor.
- **Ergonomic Stressors (or Ergonomic Hazards):** Workplace conditions that pose biomechanical stress to the worker. Such hazardous work conditions include but are not limited to faulty workstation layout, improper work methods, improper tools, excessive tool vibration, and job design problems that include aspects of workflow, line speed, posture and force requirements, work/rest regimens, and repetition rate.
- **Ergonomic Worksite Analysis:** A detailed assessment of a particular job task to identify potential ergonomic stressors. This assessment helps to verify lower risk factors at light duty or restricted activity work positions and to determine if risk factors for a work position have been reduced or eliminated to the extent possible. The assessment includes an analysis of the workstation layout and the ergonomic risk factors of the job.
- **Ergonomic Worksite Survey:** A methodology that identifies job tasks as having a high or low level of ergonomic risk. Job tasks identified as having a high ergonomic risk require an ergonomic worksite analysis. The survey includes a review of injury and illness records to identify patterns and trends that may indicate the development of CTDs.
- **Human Engineering Design Criteria:** The summation of available knowledge that defines the nature and limits of human capabilities as they relate to the checkout, operation, maintenance or control of systems or equipment; and which may be applied during

engineering design to achieve optimum compatibility between equipment and human performance.

Responsibilities and Authorities

Supervisors are responsible for:

- 1. Ensuring that employees reporting ergonomic-related symptoms are referred to Human Resources and subsequently a medical treatment facility for surveillance or treatment.
- 2. Assisting in performing worksite surveys.
- 3. Ensuring implementation of corrective action for control of ergonomic stressors as recommended by the Safety Coordinator.
- 4. Addressing proper work-related techniques in an on-the-job training program.

Employees are responsible for:

- 1. Using proper work techniques in performing their duties.
- 2. Reporting all injuries, symptoms, and illnesses that may be related to ergonomics to their supervisors and to Human Resources.
- 3. Checking with their supervisors regarding ergonomic improvements in their work area.

Hazard Prevention and Control

Engineering Controls

- 1. Engineering controls, where feasible, are the preferred method of controlling ergonomic stressors.
- 2. Workstation design shall be flexible enough to accommodate the person who will be performing a given job.
- 3. Workspaces shall be large enough to allow for the full range of required movements.

Work Practice Controls

- 1. The ergonomic worksite analysis shall emphasize evaluation of work practice controls, including:
 - a. Proper techniques and methods that improve posture and reduce stress and strain on extremities;
 - b. Proper care, use, and maintenance of tools;
 - c. Correct lifting techniques; and
 - d. Correct use of ergonomically designed workstations and fixtures.
- 2. Supervisors may consider the modification of work practice controls to accommodate changes in the dynamics of the workplace, such as:
- 3. Administration controls may be used to reduce the duration, frequency, and severity of exposures to ergonomic stressors.
- 4. Each department shall have an effective housekeeping program to minimize the potential for slips, trips, and falls.

Training and Education

The Safety Coordinator shall develop and administer a training program for ergonomics.

The training will cover:

- 1. The principles of ergonomics and their applications.
- 2. The proper use of equipment, tools, and machine controls.
- 3. The use of good work practices, including proper lifting techniques.
- 4. Work tasks that may lead to pain or injury.
- 5. Early symptoms of musculoskeletal disorders.
- 6. Understand the importance of reporting and addressing early indications of MSDs before serious injuries develop.

Employee Involvement

1. Employees are encouraged to discuss any ergonomic health concerns with their supervisor or the Safety Coordinator.

Personal Protective Equipment

Overview

This program sets forth the requirements and guidelines for job hazard assessment and the selection of the proper PPE. It requires supervisors to assess the workplace and determine the appropriate PPE for the job to be performed. Once the assessment is complete, employees shall be trained in the selection and use of PPE.

Hazard Assessment

- 1. Assess the workplace to determine if hazards are present. Hazards of the job may include, but not be limited to:
 - a. Sources of motion
 - b. Extreme temperatures
 - c. Chemicals
 - d. Biohazards
 - e. Harmful dust
 - f. Light radiation
 - g. Falling objects
 - h. Sharp objects
 - i. Rolling or pinching objects
 - j. Noise
 - k. Electrical hazards
- 2. Additionally, note the workplace layout and placement of co-workers.
- 3. Evaluate the degree of risk of the specific hazard, including the seriousness of the injury that could occur.
 - a. Job activities with greater risk should be further evaluated for secondary risks and to ensure the most serious hazards are minimized.
- 4. A job hazard analysis (JHA) form can be obtained from the Safety Coordinator and is part of the safety program. Supervisors should complete JHAs on all positions and routine activities.

Training

- 1. All employees who use personal protective equipment, as well as their supervisors, shall be trained in the use of PPE. This training shall include:
 - a. When PPE is necessary
 - b. What types of PPE are necessary
 - c. Limitation of PPE
 - d. Proper care, maintenance, useful life, and disposal of PPE
- 2. Employees shall be retrained when:
 - a. There is evidence that the employee is not using the PPE appropriately
 - b. When the required PPE has changed due to operational changes
 - c. When the required PPE has changed

Eye/Face

- 1. Employees shall wear eye/face protection when they are exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, biologic hazards, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation.
- 2. Employees will use only eye protection built under ANSI specifications Z87.1-2010 or higher.
- 3. Refer to the Eye/Face protection program.

Hearing

1. Refer to the Noise Control and Hearing Conservation Program for requirements on the use of hearing protection.

Head

- 1. Employees shall wear head protection when they are exposed to areas where there is a potential for injury from falling objects to the head or when they are exposed to electrical conductors that could contact the head.
- 2. Protective helmets must comply with ANSI Z89.1-1986 or other equipment demonstrated to be equally effective.
- 3. Refer to the Head Protection program for further guidance.

Foot

- 1. Employees shall wear protective footwear when working in areas where there is a danger of foot injuries due to falling or rolling objects, objects piercing the sole or where the employee's feet are exposed to electrical hazards. Each department will have its requirements for foot protection and its use.
- 2. Protective footwear must comply with ANSI Z41-1991.
- 3. Refer to Foot Protection program for further guidance.

Hand

- 1. Employees shall wear appropriate hand protection when their hands are exposed to hazards such as those from chemical absorption, severe cuts or lacerations, severe abrasions, chemical burns, thermal burns, and harmful temperature extremes.
- 2. The selection of hand protection will be based on the tasks performed, the conditions present, duration of use, and other potential hazards that may exist.
- 3. When employees are exposed to chemical hazards, the appropriate SDS will be used as the primary means to determine correct hand protection.
- 4. Refer to the Hand Protection program for further guidance.

Eye and Face Protection Program

Introduction

Sight is one of our most valuable senses. Partial or complete loss of sight would present a challenge to all of us. Hazards to the eyes can take a variety of forms, such as flying particles, biohazards, electromagnetic radiation, and corrosive liquids or vapors.

The primary focus of this document is the proper selection, use, and care of eye and face protection. The intent of this publication is educational and preventive. A copy of this written plan shall be made available upon request to any employee, volunteer, or visitor.

Scope

The content of this written program applies to employees, volunteers, and visitors. Eye and face protection shall be provided to employees, volunteers, and visitors. This publication covers common eye hazards likely to be encountered but excludes ionizing radiation (e.g. X-ray, gamma rays, and high-energy particle radiation).

Responsibilities

Department Heads

- 1. Assure that employees using eye protection receive the necessary training.
- 2. Assure that all eye and face protection equipment necessary is provided and maintained in a good state of repair.
- 3. Identify the activities and locations requiring eye and face protection.

Safety Coordinator

- 1. Develop a written control plan and perform a periodic review to determine if revisions are necessary.
- 2. Monitor compliance of the respective departments' compliance.
- 3. Provide guidance and technical assistance to departments regarding eye and face protection equipment and use.
- 4. Provide a means by which employees can direct suggestions, complaints, and concerns regarding the Eye and Face Protection Program.
- 5. Maintain a database of all reported eye injuries involving employees and visitors. Investigate eye and face injuries when necessary.

Employees

- 1. Participate willingly in all training programs offered and learn as much as possible about the Eye and Face Protection Program.
- 2. Abide by all rules and apply the safety and health precautions specified to the fullest extent possible.
- 3. Report any problems that are observed which could compromise health and safety to the immediate supervisor.
- 4. Maintain personal eye and/or face protection equipment in a safe and sanitary condition.
- 5. Ensure that no other individuals are exposed to eye or face hazards based on the operations being conducted.

Equipment Selection

Eye and face protection fall under a broad category known as personal protective equipment, or as it is sometimes called safety equipment. Employees may choose to provide their eye and face protective equipment if it meets or exceeds the requirements necessary for the activity. Regular prescription glasses are manufactured to safety standards meeting the requirements of the Food and Drug Administration. Although the lenses in prescription glasses are referred to as "safety glass," these lenses do not meet the requirements for workplace safety. Engineering and administrative controls should always be considered first. Examples of engineering controls include:

- 1. Substitution of substances or processes which eliminate or decrease the possibility of an eye injury.
- 2. The enclosure of a process or equipment that generates a hazard of the eyes or face.
- 3. Installation of shields.

Administrative controls generally involve work procedures, warning signs, and training.

The first step in selecting eye and face protection is a recognition of the hazard. If you are unsure if a substance could be injurious to the eyes, consult the product's label or its safety data sheet (SDS). An SDS should be available for each chemical used in the workplace. The Eye and Face Protection Selection Chart from 29 CFR 1910.133 should be used to select appropriate eye protection during welding and cutting operations.

Eye and Face hazards fall into four main categories:

- 1. Flying particles and materials
- 2. Electromagnetic radiation
- 3. Chemicals that can be accidentally splashed in the eye(s) or chemical vapors that can cause eye injury.
- 4. Biological hazard

If you have a specific question regarding eye and face protection that is not adequately answered by the written program, consult your immediate supervisor.

Approved Equipment

Equipment used to protect the eyes and face shall be approved by the American National Standards Institute (ANSI). New eye protection shall comply with Z 87.1 - 2010 "American National Standards Practice for Occupation and Educational Eye and Face Protection," or later edition. Damaged eye and face protection equipment shall not be used and shall be discarded.

Posting of Hazards

Signs shall be posted in areas requiring eye and/or face protection. The signs may be posted on entry doors to areas where eye hazards routinely exist. Examples of areas requiring eye protection include shops (wood, machine), construction sites, and chemical storage sites.

Face shields

Face shields function as protection for the eyes and face and can be used to supplement eye protection. A face shield should never be used alone for eye protection. As a general rule, face shields should be worn in combination with other eye protection. There are three basic types, which include provision for crown (head) protection, crown and chin protection, and neither crown nor chin protection.

Goggles

There are three basic types of goggles. The first type is designed to withstand impact only and is generally vented through the sides of the goggles to prevent fogging. The second type, which has indirect vents, is designed to prevent splashes or particles from reaching the eyes and impact. The vents are capped and limit airflow. Fogging of the goggles could be a problem with this type of eye protection. The third type of goggles is non-vented and is designed only to exclude vapors and fumes. An anti-fogging treatment is required with this type of eye protection.

Eye Wash Facilities

Eyewash facilities shall be provided near locations where corrosive chemicals are routinely used, mixed, handled, or stored. Where the use or handling of corrosive chemical is transient or where approved water supply is not available, consideration should be given to portable eyewash facilities.

Visitors

Visitors may be exposed to eye hazards. Each department head shall ensure that visitors are provided with appropriate eye protection when a hazard exists.

Consideration should be given to providing visitors safety glasses that can fit over prescription glasses.

Training

The City of Deadwood requires employees to be trained in proper eye protection. The training shall cover the following information:

- 1. When eye protection is necessary;
- 2. What type of eye protection is required;
- 3. The possible injuries that can occur as the result of failure to wear the provided eye protection;
- 4. How to properly don, doff, adjust, and wear eye protection;
- 5. The limitation of the eye protection; and,
- 6. The proper care, maintenance, useful life, and disposal of eye protection.

Training should be provided for each new employee. Refresher training should be provided when:

- 1. The employee demonstrates a lack of knowledge;
- 2. Different eye protection is provided to the employee;
- 3. Periodically as deemed necessary by the supervision.

Care, Maintenance, and Storage of Eye Protection

Eye and face protection must be properly maintained to be effective. Employees must report damaged eye protection and face shields to their immediate supervisor. Eyewear with a lens that has extensive scratches should be replaced. Broken or cracked welding goggles can permit ultraviolet light to penetrate and should be discarded. Eye protection should be inspected periodically for signs of wear and tear and should be stored in a location where it is not subject to physical damage, harmful chemicals, dust, excessive heat, or theft. Eye protection should be kept near the fixed equipment requiring eye protection. Fogging may occur with any type of eye protection. Anti-fogging agents are available and should be used when fogging occurs. It may be necessary to apply the anti-fogging compound every few days under heavy fogging conditions. Some eye protection comes from the manufacturer with an anti-fogging coating.

Hearing Conservation Program

The hearing conservation program (HCP) is in place to protect employee hearing and effectively manage or eliminate hazardous noise exposures. In those areas where engineering controls cannot reduce noise below harmful levels or until engineering controls can be implemented, employees will take part in an HCP.

Employees are required to fully participate in the program as a condition of employment. Employees must wear the provided ear protection devices when working in posted noise areas.

Each employee exposed to sound levels over 85 dBA, in the normal responsibilities of their position, will be:

- 1. Provided with a choice of suitable hearing protectors, fitted, and encouraged to use them.
- 2. Required to wear ear protection when working in areas where noise exposure exceeds 85 dBA in an eight-hour time-weighted average (8hr TWA).
- 3. Provided annual training and information.
- 4. Notified of noise exposure monitoring results when their exposure is 85 dBA or greater (8hr TWA).
- 5. Required to wear hearing protection in environments with noise greater than 85 dBA, regardless of the duration of exposure.

Responsibilities

- 1. Safety Coordinator will:
 - a. Maintain oversight of the HCP.
 - b. Schedule and conduct hearing conservation training.
 - c. Assist in identifying and labeling high-risk areas for noise.
- 2. Supervisors will:
 - a. Monitor and ensure the wearing of hearing protection in all posted areas.
 - b. Wear and maintain hearing protection in all posted areas.
 - c. Check the fit and condition of hearing protection and ensure replacement when necessary.
 - d. Ensure workers attend safety meetings on hearing protection.
 - e. Notify the Safety Coordinator if any additional high noise areas are suspected.
 - f. Contact the Safety Coordinator if new procedures are implemented which may affect noise levels.

- 3. Employees will:
 - a. Wear and maintain hearing protection in all posted areas.
 - b. Attend safety meetings on hearing protection.
 - c. Bring any hearing protection or noise-related problems to the attention of their supervisor.
 - d. Report to their supervisor any changing conditions which may impact personnel noise exposures.

Program Requirements

1. Noise Monitoring

- a. Noise levels in some areas will exceed 85 dBA. The noise exposure levels for areas and sources that have been measured are available through the Safety Coordinator.
- b. Additional noise monitoring will be conducted whenever employee exposures are expected to change (equipment changes, plant modifications, engineering control installations, etc.). For employees having fixed working locations near steady and continuously operating noise sources, a sound level measurement made for a representative period at the employee's position will indicate his or her exposure level. The measurement interval should be of sufficient duration to encompass a reasonable number of operating cycles for the task or machinery being considered.
- c. Affected employees or employee representatives will be notified of planned monitoring by the Safety Coordinator and permitted to observe. Employees will also be notified of monitoring results.

2. Hearing Protection

- a. Until engineering and/or administrative controls reduce the amount of noise exposure to or below the allowed limits, appropriate personal hearing protective devices are made available and issued to employees working in jobs or areas where exposure may exceed a TWA of 85 dBA. It is recognized that the use of these devices is considered a temporary solution to the problem of overexposure until feasible controls are provided. The continuing failure of an employee to properly wear the protection provided could result in the termination of employment.
- b. All visitors, management, or employees who may enter or pass through a hearing protection required area will also be expected to wear hearing protection.
- c. A variety of hearing protection options, including earplugs and muffs will be made available so that employees can choose the type which is most comfortable for them.
- d. The procedure in **Appendix E** will be used to ensure that selected hearing protection devices reduce noise exposures to an acceptable level.

3. Noise Signs

- a. All work areas where noise exposures may exceed 85 dBA will be posted with noise warning signs at entrances to these areas. All employees will wear ear protection when working in posted areas. All other employees or visitors passing through these areas will also be required to wear hearing protection.
- b. Tools that generate sound levels above 85 dBA will be labeled. Hearing protection must be used by the operator when this equipment is used.

4. Employee Training

Participation in an annual training program is required for all employees. The training will include information on:

- a. Purpose and use of hearing protectors and the advantages and disadvantages of various types.
- b. Instructions in selection, fitting, use, and care of hearing protectors.
- c. Areas where hearing protection is required.
- d. Records of training will be maintained.

5. Engineering & Administrative Controls

- a. We recognize the desirability of controlling the existing noise levels by engineering and/or administrative controls. Therefore, the feasibility of such controls is carefully considered, including a possible redesign of existing machinery, the building of partial or total enclosures, and other engineering noise control procedures for reducing the existing noise levels.
- b. Due to the complexity of some machinery used, and because of economic limitations, some noise levels cannot be reduced to below acceptable limits. Within the limitation of work schedules and employee skills, administrative controls have also been considered. On a continuing basis, engineering and administrative controls will be considered and implemented where feasible.
- c. We also recognize the desirability of considering noise levels before purchasing new or rebuilt equipment. It is our policy to evaluate noise levels before equipment purchases.

Head Protection Policy

Safety headgear (i.e. hard hats) shall be worn by employees in any area in which there is a potential hazard to the head from falling, flying, or thrown objects, or from other harmful contacts (i.e. electrical). Some examples of this hazard would include, but not be limited to:

- 1. Any operation where hard hats are mandatory (i.e. road construction, gravel pits, etc.)
- 2. Confined space entry activities;
- 3. Working below a scaffolding, aerial lift, or ladder.
- 4. When working below other workers;
- 5. When electrical contact with the head is a possibility; and
- 6. Any other operation where an employee could be struck by a falling overhead object.

Safety headgear (hard hats) shall meet the requirements of:

- 1. CSA Standard Z94.1-M1977
- 2. CAN/CSA Standard Z94.1-92
- 3. ANSI Z89.1-1969
- 4. ANSI Z89.2-1971
- 5. ANSI Z89.1-1981
- 6. ANSI Z89.1-1986
- 7. Federal OSHA regulations 29 CFR 1910.135, Head Protection

Where persons are exposed to the potential of an electrical hazard, the hard hats shall be of a non-conductive type which is rated as "Class E." Painting of hard hats and/or drilling of hard hat shells to affix attachments is prohibited.

Where there is a possibility of the hard hat being dislodged due to high winds or because of an awkward work position (i.e. when a worker is bent over), hard hats are to be fitted with chin straps or other means of ensuring that the safety headgear remains attached to the wearer.

Persons engaged in operating or riding on snow machines, all-terrain vehicles, or motorcycles in the following scenarios shall wear safety helmets, approved by a recognized agency (DOT, Snell, etc.)

- 1. Operating on any street.
- 2. Exceeding 15 mph.
- 3. Operating in an area where a high risk of rollover is present.

Where such machines are used to transport workers to a work point where any work away from the machines will expose the workers to a hazard of head injury, then hard hats shall be

carried and worn at the worksite. The use of hard hats for protection while operating or riding a snow machine, all-terrain vehicle, or motorcycle is prohibited.

Persons wearing safety headgear are to inspect the shell and suspension for any visible signs of damage before use. Where damage or defects are detected, the safety headgear shall be discarded and replaced with a new unit.

Safety headgear will deteriorate over time from exposure to sunlight or other chemicals. The normal service life of a hard hat shell is considered to be a maximum of 5 years from the date of manufacture (which can be found permanently marked on the inside surface of the hard hat shell). The service life of the suspension is considered to be 1 year of regular use. Where use is intermittent, the suspension may last longer. Replacement suspension harnesses shall be from the same manufacturer and for the same model of the hard hat. Mixing different manufacture suspension types and hard hat shells is prohibited. Hard hats shall be replaced after being struck or after any event that may have reduced the ability of the hard hat to protect the user.

Foot Protection Policy

Purpose

The purpose of the foot protection policy is to select and have each affected employee use, appropriate foot protection at the City of Deadwood, to minimize the risk of foot injuries. It is the responsibility of immediate supervisors to perform a job hazard analysis to determine the need for specific foot protection and to ensure that appropriate foot protection is being worn.

Responsibility

Employees are responsible for their safe use of foot protection. They shall wear the approved foot protection as part of their daily uniform. City of Deadwood employees are eligible for a \$400/year reimbursement for the purchase of safety toed boots and safety gear. Contact your supervisor or HR for details.

Management/Supervisors are responsible for implementing an appropriate foot protection program for individuals, work, and areas under their direction. They shall:

- 1. Evaluate all their work areas and tasks and assess the risk for foot injuries, plus slips and falls and electrical shock where footwear may have an impact.
- 2. Determine the need for specific foot protection.
- 3. Ensure appropriate, approved foot protection is being worn
- 4. Provide adequate storage and care capability.
- 5. Ensure foot protection requirements are being followed.

Safety Coordinator

- 1. Provide professional consultation and guidance to management for all foot protection program elements.
- 2. Audit the foot protection program and assist management in developing effective strategies for indicated improvement.
- 3. Develop and maintain an effective foot protection program to include policy.

Footwear Requirements

All protective footwear shall meet the requirements of ANSI Standard Z41-1991: Protective footwear is intended to protect the toes against external forces through the use of a protective toe box. Compression and Impact-resistant protective footwear shall be rated no less than C/75 and I/75, respectively.

Electrical Hazard Safety footwear shall protect open circuits of 600 volts or less under dry conditions. No metal parts shall be incorporated in the sole or heel of the shoe.

Sole puncture-resistant footwear shall include a protective device that will protect puncture wounds of the sole for the life of the footwear.

No affected employee may work without safety shoes where there is a danger of the abovementioned hazards. The safety toe portion of the footwear may be composed of steel or composite material. If anyone needs information about what type of foot protection is appropriate, please contact the Safety Coordinator.

Hand Protection Policy

Overview

Hand protection shall be worn when hands are exposed to hazards such as those from skin absorption of harmful substances, severe cuts or lacerations, severe abrasions, punctures, chemical burns, thermal burns, and harmful temperature extremes. The basis for this policy is to protect against all types of hand injuries.

The type of hand protection used shall be based on the performance characteristics of the hand protection relative to the task(s) to be performed, conditions present, duration of use, and the hazards or potential hazards identified.

Responsibility

Each department is charged with the responsibility to perform the appropriate job hazard analysis to identify all hand hazards and to ensure employees' hands are protected while performing duties in the workplace. Questions employees might have relative to hand protection should be directed to the Safety Coordinator.

Selection of Gloves for Protection Against Chemical Hazards

- The toxic properties of the chemical(s) must be determined; in particular, the ability of the chemical to cause local effects on the skin and/or to pass through the skin and cause systemic effects;
- 2. Generally, any "chemical resistant" glove can be used for dry powders;
- 3. For mixtures and formulated products (unless specific test data are available), a glove shall be selected based on the chemical component with the shortest breakthrough time, since solvents can carry active ingredients through polymeric (a chemical compound or mixture of compounds formed by polymerization and consisting essentially of repeating structural units) materials; and
- 4. Employees shall be able to remove the gloves in such a manner as to prevent skin contamination.
- 5. Employees should report to their immediate supervisor all hand injuries so appropriate post-accident evaluations can be made to help ensure repeat accidents don't reoccur.

Note: Employees should be reminded that not all gloves protect against cut injuries. Make sure you use the correct gloves for this hazard, which may include Kevlar or metal mesh.

Hazard Communication Plan

Overview

The purpose of the Hazard Communication Standard is to ensure that the hazards of all produced or incorporated chemicals are evaluated and the information concerning these hazards is transmitted to employers and employees. The plan also uses the Globally Harmonized System (GHS). This is an international approach to hazard communication, providing agreed criteria for the classification of chemical hazards, and a standardized approach to label elements and safety data sheets. The GHS was negotiated in a multi-year process by hazard communication experts from many different countries, international organizations, and stakeholder groups. It is based on major existing systems around the world, including OSHA's Hazard Communication Standard and the chemical classification and labeling systems of other US agencies.

The standard mandates the evaluation of hazardous chemicals present in a workplace and requires training of employees regarding the hazardous chemicals and related prevention and protective measures for routine and non-routine tasks.

The Hazard Communication Plan

- 1. The Hazard Communication Plan (HCP) consists of four major components:
 - a. Identification and inventory of all hazardous chemicals and listing on a Hazardous Chemical List (HCL).
 - b. Acquisition of Safety Data Sheets (SDS) for each hazardous chemical listed on the HCL.
 - c. Labeling of all hazardous chemicals with chemical name, hazards, and warnings and the manufacturer or importer's name and address, with reference to the appropriate Safety Data Sheet.
 - d. Training of all employees about the hazardous chemicals in the workplace and the Hazard Communication Plan.
- 2. The Safety Coordinator is responsible for the Hazard Communication Plan. Each department shall institute a HAZCOM program that meets the standards of this plan.
- 3. Copies of the Hazard Communication Standard and the Hazard Communication Plan will be maintained and available upon request.

Hazardous Chemicals List

- 1. Each department is responsible for identifying and inventorying all hazardous chemicals within their department. A HAZCOM officer should be assigned by each department to maintain a proper inventory and to keep SDS sheets up to date.
- 2. A current master list will be maintained at all times. New chemicals will be added as

they are received, and chemicals no longer inventoried will be removed from the list as they are discarded. A formal inventory and update of the list will be done annually.

- 3. Each hazardous chemical must be cross-referenced to an appropriate Safety Data Sheet.
- 4. The master HCL will be maintained by the Safety Coordinator. Partial lists may be maintained in the various departments where hazardous chemicals are used.

Safety Data Sheets (SDS)

- 1. The Hazard Communication Standard requires that SDSs be available to all employees for each hazardous chemical identified and used. If the employer receives a chemical container labeled as a hazard, an SDS is required.
 - a. Each department will be responsible for acquiring and maintaining updated versions of all SDSs that are pertinent to its operation.
 - b. The SDS will be written in English and will consist of all of the following information:

The format of the 16-section SDS should include the following sections:

- 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

The SDS must also contain Sections 12-15, to be consistent with the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

- c. All new procurements of hazardous chemicals should be evaluated and, whenever possible, the least hazardous substance should be purchased.
- d. Training of all employees regarding any new or updated SDS will be documented.
- e. Purchase orders for hazardous chemicals should include a request for a current SDS.
- f. Hazardous chemicals should not be incorporated into any work process until an

SDS has been received and reviewed by employees exposed to the chemical.

- 2. Accessibility of Safety Data Sheets:
 - a. A current SDS library will be maintained by each department for all hazardous chemicals identified and listed on the HCL. A master SDS library will be maintained by the Safety Coordinator. Each department is responsible to get new SDS sheets to the Safety Coordinator.
 - b. The SDSs will be readily available to all employees during each work shift.
 - c. If a new SDS contains changes or new information, the old SDS will be replaced with the new one in both the master file and the worksite file. Affected personnel will review updated or modified SDSs.

Labels and Other Forms of Warning

- 1. Containers of hazardous chemicals will be properly labeled with the following information:
 - a. Identity of the hazardous chemical;
 - b. Appropriate hazards and warnings (including target organ effect); and
 - c. Name and address of the manufacturer.
 - d. **Pictogram:** a symbol plus other graphic elements, such as a border, background pattern, or color that is intended to convey specific information about the hazards of a chemical. Each pictogram consists of a different symbol on a white background within a **red square frame** set on a point (i.e. a red diamond). There are nine pictograms under the GHS. However, only eight pictograms are required under the HCS.
 - e. **Signal words:** a single word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for less severe hazards.
 - f. **Hazard Statement:** a statement assigned to a hazard class and category that describes the nature of the hazard(s) of a chemical, including, where appropriate, the degree of hazard.
 - g. **Precautionary Statement:** a phrase that describes recommended measures to be taken to minimize or prevent adverse effects resulting from exposure to a hazardous chemical or improper storage or handling of a hazardous chemical.

Health Hazard	Flame	Exclamation Mark
 Carcinogen MutageniCity Reproductive ToxiCity Respiratory Sensitizer Target Organ ToxiCity Aspiration ToxiCity 	 Flammables Pyrophorics Self-Heating Emits Flammable Gas Self-Reactives Organic Peroxides 	 Irritant (skin and eye) Skin Sensitizer Acute Toxicity (harmful) Narcotic Effects Respiratory Tract Irritant Hazardous to Ozone Layer (Non-Mandatory)
Gas Cylinder	Corrosion	Exploding Bomb
Gases under Pressure	 Skin Corrosion/ burns Eye Damage Corrosive to Metals 	ExplosivesSelf-ReactivesOrganic Peroxides
Flame over Circle	Environment (Non-Mandatory)	Skull and Crossbones
Oxidizers	 Aquatic ToxiCity 	 Acute Toxicity (fatal or toxic)

HCS Pictograms and Hazards

- 2. The appropriate SDS will be reviewed by department supervisors to verify the warning label.
- 3. Unlabeled containers should not be used.
- 4. Secondary containers will be labeled.
 - a. A semi-permanent label with the following information will be used:
 - 1. Identity of the hazardous chemical;
 - 2. Appropriate hazards and warnings (including target organ effect); and
 - 3. Name and address of the chemical manufacturer.
 - b. Use the secondary container only for the chemical identified on the label.
 - c. The secondary container will be emptied and washed as needed. The label will not be removed but will remain in place for future uses.
- 5. Alternate methods of labeling (signs, placards, batch tickets, process sheets, and like written materials) may be used on individual stationary containers in place of affixed labels, provided the alternative method identifies the containers to which it applies, conveys the required information, and is readily accessible to employees in their work area throughout the shift.
- 6. All primary and secondary containers will be regularly checked and verified that labels have not been defaced or removed and the information contained on them is current.

Training and Communication

- 1. Before an assignment, each employee who works with or is potentially exposed to hazardous chemicals will receive training on the Hazard Communication Standard and the specific use of applicable hazardous chemicals.
- 2. Before the introduction of new hazardous material or updated hazard, each employee will be trained concerning specific use or handling procedures.
- 3. Training will emphasize the following elements:
 - a) A summary of the Hazard Communication Standard and Hazard Communication Plan;
 - b) Hazardous chemical properties, including visual appearance, odor, and methods that can be used to detect the presence or release of hazardous chemicals.
 - c) Physical and health hazards of the chemicals in the work area (including signs and symptoms of exposure) and any medical conditions that are known to be aggravated by exposure to the chemical.
 - d) Procedures to protect against hazards, including:
 - i) Personal protective equipment required.
 - ii) Proper use and maintenance.
 - iii) Work practices or methods to assure proper use and handling of chemicals.
 - iv) Emergency response procedures.
 - e) Work procedures to follow to assure protection when cleaning hazardous chemicals and leaks.
 - f) Location of SDS, interpretation of their contents and labeling information, as well as for instructions for employees on how to obtain and use appropriate hazard information.
 - g) Explanation of the labeling system and instructions for preparing secondary container labels.
- 4. Employee training will be documented and monitored for use in identifying training needs.
 - a) Retraining is required when a chemical hazard changes or when a new hazard is introduced into the workplace. It will also be policy to include hazard communications into regularly scheduled staff training meetings.
 - b) The training program will be assessed by obtaining input from employees regarding the training they have received and their suggestions for improvement.

Non-Routine Tasks

1. Supervisors contemplating undertaking a non-routine task will ensure that employees are informed of chemical hazards associated with the performance of these tasks and that appropriate protective measures are taken before the beginning of the task.

Ladder Safety Program

Overview

This program applies to all employees (including employees and volunteers), who use ladders at work. The program describes how portable ladders are to be selected, used, inspected, and maintained, and implementation of the provisions within this program is the responsibility of each employee under the direction of individual departments.

Requirements

- 1. Ladder Selection
 - a. Different ladders are made for specific uses. For a given task, you must select the right ladder to ensure your safety. Before purchasing a ladder, check with your immediate supervisor for requirements. New ladders must meet or exceed ANSI Type I-A specifications, with preference to fiberglass construction.
- 2. Step Ladders
 - a. These are self-supporting ladders with flat steps and hinged backs. They may be constructed of aluminum, fiberglass, or wood, and they must have a metal spreader that locks the ladder open. They should only be used on a firm and level surface. The maximum allowable length for a step ladder is 20 feet. These must never be used as a straight-type ladder (leaned up against a wall for use), as the footing was not designed for safe use in this manner.
 - b. Never stand or sit on the top two steps of a step ladder! A longer ladder may be required to safely perform a given task.
- 3. Straight-type Ladders
 - a. These are not self-supporting ladders. They must be leaned up against a stable surface, with a 1:4 slope (1 foot away from the wall for every 4 feet in height). They may be constructed of aluminum, fiberglass, or wood, in either single or extendable lengths. The maximum allowable length for a single ladder is 30 feet, while extension ladders may reach up to 72 feet. Both should be placed on a firm, stable footing, or utilize leg extensions or non-slip feet.
 - b. Straight-type ladders should extend at least 3 feet above the accessed area, and they must be tied off to a secure anchor point if they are to be used repeatedly in the same spot.
- 4. Rolling Ladders
 - a. These self-supporting, stair-type ladders exist primarily in warehouse environments where rolling surfaces are smooth and level. They have integral handrails and usually have locking devices for stability.

- b. Most rolling ladders are constructed of steel, so be aware of conductivity risks when working near electrical equipment.
- 5. Scaffolds
 - a. Make sure scaffolds are of sufficient strength and rigidity to safely support the weight of employees and materials to which they may be subjected.
 - b. Equip all scaffolds six feet or higher with railings and toe-boards.
 - c. Remove all loose tools, materials, and equipment resting on the scaffold deck before moving the scaffold.
 - d. When working on all swing stage work, wear a safety harness.

Safety Procedures

- 1. Never use a ladder unless you have been trained.
- 2. Always use three points of contact when using ladders (e.g.: two feet and one hand in contact with the ladder).
- 3. Portable ladders are to be used by only one person at a time unless specifically designed otherwise.
- 4. Protect the base of ladders in high traffic areas. If you must close an area due to safety concerns, barricade access routes, and post alternatives, as appropriate. If you cannot close an area, you must have another employee guard the ladder base.
- 5. Make sure ladder treads are clear of mud and debris before using. Employees may only use a contractor-owned ladder with the contractor's permission and only after assessing the ladders' condition.

Never:

- 1. Carry awkward loads while using a ladder. Use ropes to haul heavy items up once you have reached your working height or surface.
- 2. Place tools or supplies on ladders steps if they could fall. Many injuries are caused by falling objects.
- 3. Use wood or metal ladders around exposed, energized electrical equipment. Ladders can provide energy an easy path to ground.
- 4. Paint a ladder. Paint conceals defects and can cover rating labels.
- 5. Reach far out from or turn excessively while on a ladder. These actions risk destabilizing the ladder.
- 6. Store a ladder in the rain or direct sun. These shorten ladder service lives.
- 7. Lean a ladder on windows, unsecured surfaces, or other unstable support. Your support point must be as stable as your base.
- 8. Use a defective ladder. Report these to your direct supervisor for repair or disposal.

Carrying a Ladder

Proper technique should be followed when carrying a ladder to avoid injuries or damage. Be aware of obstacles in your surroundings when you carry a ladder. Move slowly, especially if you

are not used to using a ladder and follow these steps.

- 1. Place the ladder sideways on the ground with the rungs facing you. The top of the ladder should be to your left and bottom to your right.
- 2. Stand next to the rung that is about one-third up the ladder from the bottom end. The longer the ladder, the closer you will have to stand to the middle rung to maintain balance
- 3. Turn your body left so it is at a right angle to the ladder facing toward the top end. Bend at the knees and grab the outside rail with your right hand. If the ladder is too heavy to carry with one hand, grab the inside rail with your left hand at the same time.
- 4. Lift the ladder using your knees, not your back. If it feels like too much weight is tipping toward the front or back, set the ladder down and move a little closer to the end that feels more weighted before trying to lift again. Keep your arms fully extended while carrying.
- 5. Use your feet to turn, not your waist, and always check for obstacles at each end before making your turn.

Do Not Strain Yourself

Do not carry an extension ladder more than 15 feet in length or weighing more than 40 pounds by yourself. If you do not feel comfortable carrying it by yourself, get help – there is no sense in potentially injuring your back. If you do carry a ladder with another person, make sure you are both on the same side to avoid accidents.

Inspection

- 1. The safety of ladders must be assessed by the user before each use. Only ladders in good condition are to be used.
- 2. Periodic, comprehensive inspections are recommended to ensure each ladder is fit for use. Departments may wish to keep records of ladder inspections. Records may also include dated inspection verification stickers applied directly to ladders.
- 3. Unsafe ladders must be marked or tagged as unsafe (e.g.: Do Not Use or Damaged). The Safety Coordinator can help determine repair or disposal needs.

Training

Training will include the following:

- 1. A summary of the requirements in this policy and general equipment safety
- 2. Orientation to the ladders that are available to an individual for tasks required for their job.
- 3. Physical hazards associated with ladder use in the workplace;
- 4. Proper use and safety procedures to protect against accidents, including placement and orientation of ladders.
Machine Guarding Policy

Purpose and Application

This policy document is designed to ensure that employees follow procedures which assure that equipment or machines are operated safely and meet state, federal, and industry machine guarding standards.

This applies to all employees who may work with, or adjacent to, equipment or machines that may pose a safety hazard.

"Machines" include, but are not limited to, fans, compressors, bench grinders, fuel pumps, dumpsters, trash compactors, and table saws. Any machine part, function, or process that may cause injury, must be safeguarded. When the operation of a machine or accidental contact with it can injure the operator or others in the vicinity, the hazards must be either controlled or eliminated.

A "machine hazard" occurs at the point of operation where the actual work is performed and can be created by:

- 1. components which transmit energy, such as pulleys, belts, chains, gears, couplings, or flywheels; or
- 2. other parts that move while the machine is working, including reciprocating, rotating, and transverse parts.

Roles and Responsibility

The **supervisor** is responsible for ensuring guards on facility equipment and machines operated by personnel are kept in place and used as originally designed.

The **Safety Coordinator** periodically prepares and updates the written Machine Guarding Program and responds to any employee machine guarding concern or question.

All affected **employees** should report any unguarded machine hazard to their supervisor immediately, and all employees should forward any concerns or observations regarding the lack of machine guarding to their supervisor.

Procedures

Hierarchy of Guarding

Machine guarding decisions should be made in the following order of preference:

- 1. Design out or eliminate the hazard
- 2. Physically "engineer out" the exposure to the hazard
- 3. Guard the hazard
- 4. Require personal protective equipment
- 5. Use warning devices
- 6. Use warning signs
- 7. Use safe working practices and procedures

Inspections and Audits

Machines that require guarding will be inspected regularly by department heads or their designee. Based on the results of these inspections, maintenance, or replacement of guards will be conducted as necessary. The Safety Coordinator will audit the program periodically and recommend appropriate corrective actions.

Training

Any person who works near or adjacent to any sort of machine will receive "affected employee" training during initial orientation and every two years thereafter. Affected employees receive machine guarding training specific to the hazards being controlled on the piece of equipment. Employees performing maintenance related activities will receive machine guarding training periodically.

Record Keeping

Departments maintain records of machine guarding training and copies of the annual inspections.

Bloodborne Pathogens

Exposure Determination

The City of Deadwood will perform an exposure determination concerning which employees may incur occupational exposure to blood or other potentially infectious materials. The exposure determination is made without regard to the use of personal protective equipment (i.e., employees are considered to be exposed even if they wear personal protective equipment).

This exposure determination is required to list all job classification in which all employees may be expected to incur such occupation exposure, regardless of frequency.

At the City of Deadwood, employees in the following job classifications are in this category:

- Police department
- Fire department
- Government Buildings
- Parks and Recreation
- Water and Sewer
- Streets

Additionally, a listing of job classifications in which some employees may have occupational exposure. Since not all employees in these categories would be expected to incur exposure to blood or other potentially infectious materials, tasks, or procedures that would cause these employees to have occupational exposure are also required to be listed to clearly understand which employees in these categories are considered to have occupational exposure. The job classifications and associated tasks for these categories are:

Job Classification	Tasks/Procedures	

Implementation Schedule and Methodology

Compliance Methods

- 1. Universal precautions will be observed at this facility to prevent contact with blood or other potentially infectious materials.
 - a. All blood or other potentially infectious material will be considered infectious regardless of the perceived status of the source individual.
- 2. Engineering and work practice controls will be utilized to eliminate or minimize exposure to employees at this facility.
 - a. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be utilized.
 - b. At this facility, the following engineering controls will be used.

(List controls, such as sharps containers, etc.) Sharps Containers, Biohazard Labels

3. The above controls will be examined and maintained on a regular schedule. The schedule for reviewing the effectiveness of the controls is as follows:

(List schedule such as daily, weekly, once a week, etc. as well as who has the responsibility to review the effectiveness of controls.) Monthly/Safety Coordinator and Department Heads

- 4. Handwashing facilities are available to employees who incur exposure to blood or other potentially infectious materials. These facilities should be readily accessible after incurring exposure.
 - a. At this facility, handwashing facilities are located:

(List locations, such as patient rooms, procedures area, etc.) Restrooms, designated stations

- 5. If hand washing facilities are not feasible, the employer is required to provide either an antiseptic cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes.
 - a. If these alternatives are used, the hands are to be washed with soap and running water as soon as feasible.

- 6. Employers who must provide alternatives to readily accessible handwashing facilities should list the location, tasks, and responsibilities to ensure maintenance and accessibility of these alternatives.
- 7. After removal of personal protective gloves, employees shall wash hands and any other potentially contaminated skin area immediately or as soon as feasible with soap and water.
- 8. If employees incur exposure to their skin or mucous membranes, those areas shall be washed or flushed with water as appropriate as soon as feasible following contact.

Needles

1. Contaminated needles and other contaminated sharps will not be bent, recapped, removed, sheared, or purposely broken.

Work Area Restrictions

- 1. In work areas where there is a reasonable likelihood of exposure to blood or other potentially infectious materials, employees are not to eat, drink, apply cosmetics or lip balm, or handle contact lenses.
- Food and beverages are not to be kept in refrigerators, freezers, shelves, cabinets, or on countertops or benchtops where blood or other potentially infectious materials are present.
- 3. Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.
- 4. All procedures will be conducted in a manner that will minimize splashing, spraying, spattering, and generation of droplets of blood or other potentially infectious materials.

Contaminated Equipment

1. Equipment that has become contaminated with blood or other potentially infectious materials shall be examined before servicing or shipping and shall be decontaminated as necessary unless the decontamination of the equipment is not feasible.

Personal Protective Equipment

- 1. All personal protective equipment (PPE) used at this facility will be provided without cost to employees.
 - a. PPE will be chosen based on the anticipated exposure to blood or other potentially infectious materials.
 - b. The PPE will be considered appropriate only if it does not permit blood or other potentially infectious materials to pass through or reach the employees' clothing, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time the PPE will be used.
 - c. Protective clothing will be provided to employees by their supervisor.
 - d. All PPE will be cleaned, laundered, and disposed of by the employer at no cost to employees. All repairs and replacements will be made by the employer at no cost to employees.

- e. All garments penetrated by blood shall be removed immediately or as soon as feasible. All PPE will be removed before leaving the work area. The following protocol has been developed to facilitate leaving the equipment in the work area.
- f. Gloves shall be worn where it is reasonably anticipated the employees will have hand contact with blood, other potentially infectious materials, non-intact skin, and mucous membranes.
- 1. Gloves will be available from the employee's supervisor
- 2. *Disposable gloves* used at this facility are not to be washed or decontaminated for reuse and are to be replaced as soon as practical when they become contaminated or as soon as feasible if they are torn, punctured or when their ability to function as a barrier is compromised.
- 3. *Utility gloves* may be decontaminated for re-use provided the integrity of the glove is not compromised. Utility gloves will be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.
 - g. Masks, in combination with eye protection devices such as goggles or glasses with a solid shield or chin-length face shields, are required to be worn whenever splashes, spray, splatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can reasonably be anticipated.
 - h. This plan also requires appropriate protective clothing to be used, such as lab coats, gowns, aprons, clinic jackets, or similar outer garments.

Decontamination

- 1. Decontamination will be accomplished using bleach or EPA-approved germicide products.
- All contaminated work surfaces will be decontaminated after completion of procedures and immediately, or as soon as feasible, after any spill of blood or other potentially infectious materials, as well as at the end of the work shift, if the surface may have become contaminated since the last cleaning.
- 3. Any broken glassware that may be contaminated will not be picked up directly with the hands.

Regulated Waste Disposal

- 1. All contaminated sharps shall be discarded as soon as feasible in sharps containers, located in an area designated by each department.
- 2. Regulated waste other than sharps shall be placed in appropriate containers. These containers are located in an area designated by each department.

Laundry Procedures

- Laundry contaminated with blood or other potentially infectious materials will be handled as little as possible. Such laundry will be placed in appropriately marked bags at the location where it was used. Such laundry will not be sorted or rinsed in the area of use.
- 2. All employees who handle contaminated laundry will use PPE to prevent contact with the blood of other potentially infectious material.
- 3. Laundry at this facility will be cleaned in an area designated by each department.

Hepatitis B Vaccine

- 1. All employees who have been identified as having exposure to blood or other potentially infectious materials will be offered the Hepatitis B vaccine, at no cost to the employee.
 - a. The vaccine will be offered within 10 working days of their initial assignment to work involving the potential for occupational exposure to blood or other potentially infectious materials unless the employee has previously had the vaccine or who wishes to submit to antibody testing which shows the employee to have sufficient immunity.
- 2. Employees who decline the Hepatitis B vaccine will sign a waiver that uses the following wording: "I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring Hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with Hepatitis B vaccine, at no charge to myself. However, I decline Hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring Hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with Hepatitis B vaccine, I can receive the vaccination series at no charge to me."
- 3. Employees who initially decline the vaccine but who later wish to have it may then have the vaccine provided to them at no cost.
- Safety Coordinator oversees the program Human Resources Department – offers vaccine and signs waivers The local clinic will administer the vaccine

Post-Exposure Evaluation and Follow-Up

- 1. When the employee incurs an exposure incident, it should be reported to Human Resources.
- 2. All employees who incur an exposure incident will be offered post-exposure evaluation and follow-up.
- 3. This follow-up will include the following:
 - a. Documentation of the route of exposure and the circumstances related to the incident.
 - b. If possible, the identification and status of the source individual. The blood of the source individual will be tested (after consent is obtained) for HIV/HBV infectivity.

- c. Results of testing of the source individual will be made available to the exposed employee with the exposed employee informed as to the applicable laws and regulations concerning disclosure of the identity and infectivity of the source individual.
- d. The employee will be offered the option of having blood collected for testing of the employee's HIV/HBV serological status. The blood sample will be preserved for up to 90 days to allow the employee to decide if the blood should be tested for HIV serological status. However, if the employee decides before that time that testing will or will not be conducted, the appropriate action can be taken and the blood sample discarded.
- e. The employee will be offered post-exposure prophylaxis per the current recommendations of the U.S. Public Health Services as recommended by a local medical treatment facility.
- f. The employee will be given appropriate counseling concerning precautions to take during the period after the exposure incident. The employee will also be given information on what potential illnesses to be alert for and to report any related experiences to appropriate personnel.
- g. The following person has been designated to assure that the policy outlined here is effectively carried out as well as maintain records related to this policy: Human Resources.

Interaction with Health Care Professionals

- 1. A written opinion shall be obtained from the health care professional who evaluates employees of this facility. Written opinions will be obtained in the following instances:
 - a. When the employee is sent to obtain the Hepatitis B vaccine.
 - b. Whenever the employee is sent to a health care professional following an exposure incident.
- 2. Health care professionals shall be instructed to limit their opinions to:
 - a. Whether the Hepatitis B vaccine is indicated and if the employee has received the vaccine, or for evaluation following an incident;
 - b. That the employee has been informed of the results of the evaluation; and,
 - c. That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials.

Training

- 1. Training for all employees will be conducted during the initial assignment to tasks where occupational exposure may occur. Training for employees will include an explanation of:
 - a. Epidemiology and symptomatology of bloodborne diseases
 - b. Modes of transmission of bloodborne pathogens
 - c. This Exposure Control Plan (i.e. points of the plan, lines of responsibility, how the plan will be implemented, etc.)
 - d. Procedures that might cause exposure to blood or other potentially infectious materials at this facility.
 - e. Control methods that will be used at the facility to control exposure to blood or other potentially infectious materials.
 - f. Personal Protective Equipment available at this facility and who should be

contacted concerning PPE

- g. Post-exposure evaluation and follow-up
- h. Signs and labels used at the facility
- i. Hepatitis B vaccine program at the facility
- 2. All employees will receive annual refresher training.

Recordkeeping

- 1. As required by this plan, the following records will be maintained by *Human Resources*
 - a. Medical Record
 - b. Training Record
 - c. Sharps Injury Log

Person Fall Arrest/Protection Plan

Overview

The following information generally applies to all personal fall protection systems and is intended to assist City of Deadwood personnel with compliance with personal fall protection systems.

Planning Considerations

Staff needs to plan before using personal fall protection systems. The most overlooked component of planning is locating suitable anchorage points. Such planning should ideally be done before the structure or building is constructed so that anchorage points can be used later for window cleaning or other building maintenance.

Selection and Use Considerations

The kind of personal fall protection system selected should be appropriate for the employee's specific work situation. Freefall distances should always be kept to a minimum. Many systems are designed for particular work applications, such as climbing ladders and poles; maintaining and servicing equipment; and window cleaning.

- Consideration should be given to the environment in which the work will be performed. For example, the presence of acids, dirt, moisture, oil, grease, or other substances, and their potential effects on the system selected should be evaluated. Staff will fully evaluate the work conditions and environment (including seasonal weather changes) before selecting the appropriate personal fall protection system. Hot or cold environments may also affect fall protection systems. Wire rope should not be used where electrical hazards are anticipated.
- Where lanyards, connectors, and lifelines are subject to damage by work operations, such as welding, chemical cleaning, and sandblasting, the component should be protected, or other securing systems should be used. A program for cleaning and maintaining the system may be necessary.
- 3. **Testing Considerations.** Before purchasing a personal fall protection system, the safety coordinator will insist that the supplier provide information about its test performance (using recognized test methods) so we know that the system meets the testing criteria.

- 4. Component compatibility considerations. Ideally, a personal fall protection system is designed, tested, and supplied as a complete system. However, it is common practice for lanyards, connectors, lifelines, deceleration devices, body belts, and body harnesses to be interchanged since some components wear out before others. Employees should realize that not all components are interchangeable. For instance, a lanyard should not be connected between a body harness and a deceleration device of the self-retracting type (unless specifically allowed by the manufacturer) since this can result in additional free fall for which the system was not designed. Also, positioning components, such as pole straps, ladder hooks, and rebar hooks, should not be used in personal fall arrest systems unless they meet the appropriate strength and performance requirements. Any substitution or change to a personal fall protection system should be fully evaluated or tested by a competent person to determine that it meets applicable standards before the modified system is put in use. Rope must be used according to manufacturers' recommendations, especially if polypropylene rope is used.
- 5. Employee training considerations. Before an employee uses a fall protection system, supervisors will ensure that he or she is trained in the proper use of the system. This may include the following: The limits of the system; proper anchoring and tie-off techniques; estimating free fall distance, including determining elongation and deceleration distance; methods of use; and inspection and storage. Careless or improper use of fall protection equipment can result in serious injury or death. Supervisors and employees should become familiar with the material in this standard, as well as manufacturers' recommendations before a system is used. Employees need to be aware that certain tie-offs (such as using knots and tying around sharp edges) can reduce the overall strength of a system. Employees also need to know the maximum permitted free fall distance. Training should stress the importance of inspections before use, the limitations of the equipment to be used, and unique conditions at the worksite that may be important.
- 6. **Instruction considerations.** The safety coordinator will obtain comprehensive instructions from the supplier or a qualified person as to the system's proper use and application, including, where applicable:
 - a. The force measured during the sample force test;
 - b. The maximum elongation measured for lanyards during the force test;
 - c. The deceleration distance measured for deceleration devices during the force test;
 - d. Caution statements on critical use limitations;
 - e. Limits of the system;
 - f. Proper hook-up, anchoring and tie-off techniques, including the proper D-ring or another attachment point to use on the body harness;
 - g. Proper climbing techniques;
 - h. Methods of inspection, use, cleaning, and storage; and
 - i. Specific lifelines that may be used.

- 7. Inspection considerations. Personal fall protection systems must be inspected before initial use in each work shift. Any component with damage, such as a cut, tear, abrasion, mold, or evidence of undue stretching, an alteration or addition that might affect its effectiveness, damage due to deterioration, fire, acid, or other corrosive damage, distorted hooks or faulty hook springs, tongues that are unfitted to the shoulder of buckles, loose or damaged mountings, non-functioning parts, or wear, or internal deterioration must be removed from service immediately, and should be tagged or marked as unusable, or destroyed. Any personal fall protection system, including components, subjected to impact loading must be removed from service immediately and not used until a competent person inspects the system and determines that it is not damaged and is safe to use for personal fall protection.
- 8. **Rescue considerations.** When personal fall arrest systems are used, special consideration must be given to rescuing an employee promptly should a fall occur. The availability of rescue personnel, ladders, or other rescue equipment needs to be evaluated since there may be instances in which employees cannot self-rescue (*e.g.*, employee unconscious or seriously injured). In some situations, equipment allowing employees to rescue themselves after the fall has been arrested may be desirable, such as devices that have descent capability. **If an employee needs to be rescued dial 911.**
- 9. Tie-off considerations. Supervisors and employees should at all times be aware that the strength of a personal fall arrest system is based on its being attached to an anchoring system that can support the system. Therefore, if a means of attachment is used that will reduce the strength of the system (such as an eye-bolt/snap hook anchorage), that component should be replaced by a stronger one that will also maintain the appropriate maximum deceleration characteristics. The following is a listing of some situations in which supervisors and employees should be especially cautious:
 - a. Tie-off using a knot in the lanyard or lifeline (at any location). The strength of the line can be reduced by 50 percent or more if a knot is used. Therefore, a stronger lanyard or lifeline should be used to compensate for the knot, or the lanyard length should be reduced (or the tie-off location raised) to minimize free fall distance, or the lanyard or lifeline should be replaced by one which has an appropriately incorporated connector to eliminate the need for a knot.
 - b. Tie-off around rough or sharp (i.e. "H" or "I" beams) surfaces. Sharp or rough surfaces can damage rope lines and this reduces the strength of the system drastically. Such tie-offs should be avoided whenever possible. An alternate means should be used such as a snap hook/D-ring connection, a tie-off apparatus (steel cable tie-off), an effective padding of the surfaces, or an abrasion-resistant strap around the supporting member. If these alternative means of tie-off are not available, supervisors will try to minimize the potential free fall distance.

Knots. Sliding hitch knots should not be used except in emergencies. The oneand-one sliding hitch knot should never be used because it is unreliable in stopping a fall. The two-and-two or three-and-three knots (preferable) may be used in emergencies; however, care should be taken to limit free fall distances because of reduced lifeline/lanyard strength. A competent or qualified person must inspect each knot in a lanyard or vertical lifeline to ensure it meets strength requirements.

- a. Eye-bolts. It must be recognized that the strength of an eye-bolt is rated along the axis of the bolt and that its strength is greatly reduced if the force is applied at right angles to this axis (in the direction of its shear strength). Care should also be exercised in selecting the proper diameter of the eye to avoid creating a roll-out hazard (accidental disengagement of the snap hook from the eye-bolt).
- 10. Vertical lifeline considerations. Each employee must have a separate lifeline when the lifeline is vertical. If multiple tie-offs to a single lifeline are used, and one employee falls, the movement of the lifeline during the arrest of the fall may pull other employees' lanyards, causing them to fall as well.
- 11. **Snap hook and carabiner considerations.** The following connections must be avoided unless the locking snap hook or carabiner has been designed for them because they are conditions that can result in rollout:
 - a. Direct connection to webbing, rope, or a horizontal lifeline;
 - b. Two (or more) snap hooks or carabiners connected to one D-ring;
 - c. Two snap hooks or carabiners connected;
 - d. Snap hooks or carabiners connected directly to webbing, rope, or wire rope; and
 - e. Improper dimensions of the D-ring, rebar, or another connection point in relation to the snap hook or carabiner dimensions which would allow the gate to be depressed by a turning motion.
- 12. Freefall considerations. Supervisors and employees will always be aware that a system's maximum arresting force is evaluated under normal use conditions established by the manufacturer. Personal fall arrest systems must be rigged so an employee cannot free fall more than 6 feet (1.8 m). Even a few additional feet of free fall can significantly increase the arresting force on the employee, possibly to the point of causing injury and possibly exceeding the strength of the system. Because of this, the free fall distance should be kept to a minimum and must never be greater than 6 feet (1.8 m). To assure this, the tie-off attachment point to the lifeline or anchor should be located at or above the connection point of the fall arrest equipment to the harness. (Otherwise, additional free fall distance is added to the length of the connecting means (i.e. lanyard)). Tying off to the walking-working surface will often result in a free fall greater than 6 feet (1.8 m). For instance, if a 6-foot (1.8-m) lanyard is used, the total free fall distance will be the distance from the walking-working level to the harness connection plus the 6 feet (1.8 m) of the lanyard.
- 13. Elongation and deceleration distance considerations. During fall arrest, a lanyard will stretch or elongate, whereas activation of a deceleration device will result in a certain stopping distance. These distances should be available with the lanyard or device's instructions and must be added to the free fall distance to arrive at the total fall

distance before an employee is fully stopped. The additional stopping distance may be significant if the lanyard or deceleration device is attached near or at the end of a long lifeline, which may itself add considerable distance due to its elongation. Sufficient distance to allow for all of these factors must also be maintained between the employee and obstructions below, to prevent an injury due to impact before the system fully arrests the fall. A minimum of 12 feet (3.7 m) of lifeline should be allowed below the securing point of a rope-grab-type deceleration device, and the end terminated to prevent the device from sliding off the lifeline. Alternatively, the lifeline should extend to the ground or the next working level below. These measures are suggested to prevent the employee from inadvertently moving past the end of the lifeline and having the rope grab become disengaged from the lifeline.

14. **Obstruction considerations.** In selecting a location for tie-off, supervisors and employees should consider obstructions in the potential fall path of the employee. Tie-offs that minimize the possibilities of exaggerated swinging should be considered.

Powered Industrial Trucks Policy

Overview

All powered industrial trucks (PITs/forklifts) shall be operated and maintained per this policy. This guides the safe operation of propane, gasoline, and electric battery-powered forklifts and power lifts.

Authority and Responsibility

The Safety Coordinator is responsible for:

- 1. Reviewing the PIT policy to assure compliance;
- 2. Coordinating and providing training of affected employees;
- 3. Inspecting recordkeeping material; and

Supervisors are responsible for:

- 1. Ensuring employees attend training and safely operate PITs;
- 2. Ensuring all equipment is in proper working condition;
- 3. Assuring operators perform appropriate pre-operation safety inspections and are properly trained before operating equipment;
- 4. Maintaining required documentation.

Employees are responsible for complying with this policy.

General Requirements

- 1. Only trained and authorized operators shall be permitted to operate a PIT;
- 2. The employee is responsible for ensuring the safe operation of the PIT;
- Modifications and additions that affect capacity and the safe operation of the PIT shall not be performed without the manufacturer's prior written approval. Capacity, operation, and maintenance instruction plates, tags, or decals shall be modified accordingly;
- If the PIT is equipped with front-end attachments other than factory installed attachments, the PIT shall be marked to identify the attachments and show the approximate weight of the truck and attachment combination at maximum elevation with load laterally centered;
- 5. Nameplates and markings shall be in place and maintained in a legible condition.

Pre-Operation Safety Inspection

Before operating a PIT, the employee shall perform a pre-operation safety inspection.

- 1. This inspection shall be made at least daily;
- 2. The inspection shall identify any conditions that could affect the safe operation of the PIT;
- 3. If any condition(s) exist, the PIT shall be removed from service and tagged "Out of Service" until the proper repairs or concerns are addressed;
- 4. Upon an operator discovering any concerns, immediately notify your supervisor so he or she can notify the person responsible for the repairs; and
- 5. Only outside contractors qualified to repair PITs shall perform all repairs and adjustments.

The keys to PITs shall be confiscated by the supervisor for any PIT that is determined to be unsafe.

Fuel Handling and Storage

The following procedures shall be followed:

- 1. When refueling or recharging the batteries of a PIT, the operator shall ensure that the PIT is shut off and the parking brake is engaged;
- 2. Refueling and recharging shall be completed in areas that are designated and well ventilated. The safety coordinator will designate refueling/recharging stations.
- 3. Personal protective equipment (approved face shield, goggles, gloves) should be worn during some refueling and battery recharging operations;
- 4. Emergency eyewash/shower station shall be present in the area;
- 5. Smoking shall be prohibited in refueling and recharging areas. Fuel vapors and gases, which can escape from the battery and fuel vents, are extremely flammable;
- 6. Tools and other metallic objects shall be kept away from the top of uncovered batteries; and,
- 7. An ABC rated fire extinguisher shall be present in all vehicles.

Workplace Hazards

The workplace contains many hazards that are easily detectable if a quick survey of the area is conducted. These hazards include, but are not limited to, the following:

- 1. Overhead obstructions such as fire protection sprinkler piping, ventilation ducts, lighting fixtures, or power lines. If the load you are moving is carried too high or the PIT mast is raised too high, damage can occur to the overhead obstruction and possibly cause injury to the operator or people in the immediate area;
- 2. Co-workers or pedestrians traveling to and from certain areas;
- 3. Poor housekeeping such as debris left on the floor and wet floors;
- 4. The poor condition of the ground surface such as uneven concrete, potholes, and cracks;

- Poor visibility around corners. The operator's view from a PIT can be blocked or obstructed by the load. If there is not a clear view, drive in reverse or have a co-worker act as a "spotter" to direct you;
- 6. Operating a PIT in a confined area with poor ventilation can allow the PIT exhaust gases to accumulate. This creates a hazard not only for the forklift operator but also for others within the area or building.
- 7. For those individuals who wear eyeglasses, this could be a hazard when entering a warm atmosphere from a cold atmosphere (driving into a building from the outside) and having your eyeglasses steam up; and
- 8. Driving too fast for the conditions of the area. When operating a PIT, always remain alert and cautious.

Note the existing and potential hazards and conditions that do or could exist in your work environment. Whenever a hazard is discovered which requires action such as housekeeping, poor ground condition, or poor ventilation, immediately notify your supervisor to ensure the proper procedures are followed to address the hazards.

Operating Procedures

When operating a PIT, always travel with the forks approximately four inches from the ground so they clear any uneven surfaces. Always survey the area ahead and to the sides as you travel. Always travel in reverse or use a "spotter" when the load you are carrying obstructs your view.

Some factors that could cause the PIT to tip over:

- 1. Overloads;
- 2. Unstable loads;
- 3. Load not centered on forks;
- 4. Traveling with the load raised;
- 5. Sudden stops and starts;
- 6. Making sharp turns; and
- 7. Traveling across a ramp or incline.

Safety Practices

The following safety practices shall be adhered to at all times:

- 1. Wear seatbelts whenever the PIT is equipped with them;
- 2. Keep all body parts inside the driver's compartment;
- 3. Drive at safe speeds;
- 4. Do not carry passengers on the PIT;
- No person shall be permitted to stand or pass under elevated portions of any PIT, whether loaded or empty;

- 6. All PIT operators working on platforms that are six feet above a lower level shall wear appropriate fall protection devices;
- 7. When traveling behind other PITs or vehicles, always maintain at least three forklift lengths from the vehicle or PIT ahead, and maintain control of the PIT at all times;
- 8. Slowly approach ramps and inclines straight, not at an angle;
- 9. When operating on an incline with a load, the load and forks should point up the incline regardless of the direction of travel. If you must come down an incline with a load, the operator should keep the load pointed up the incline and back the PIT down the incline.
- 10. When operating on an incline without a load,
- 11. Be cautious while on a ramp or incline. Follow manufacturer's recommendation for operations on cross slopes, inclines, and declines.
- 12. When parking a PIT and before dismounting or leaving the unit, shut-off the power. The operator shall never leave a running PIT unattended;
- 13. When the PIT is left unattended, the load shall be fully lowered, controls shall be neutralized, power shut off, brakes set and wheels blocked if PIT is parked on an incline;
- 14. Never park a PIT in front of any fire protection equipment, emergency exits, or in a manner that would obstruct a person from exiting the area;
- 15. If at any time during operation a PIT is found to require repair, defective, or in any way unsafe, it shall be immediately removed from service. The department supervisor shall be notified so he or she can notify the person responsible for the repairs; and

Training

- 1. Employees designated to operate a PIT shall be required to participate in and complete a PIT training program offered through safety training to ensure the operator is properly trained to operate a PIT safely before assuming their responsibilities.
- 2. Training consists of a combination of formal instruction and practical training. Formal instruction includes lectures, interactive discussion, video, and written material handouts. Practical training includes demonstrations performed by the trainer, practical exercises performed by the trainee, and evaluation of the operator's performance in the workplace.
- 3. Trainees may operate a powered industrial truck only:
 - a. Under the direct supervision of persons who have the knowledge, training, and experience to train operators and evaluate their proficiency; and
 - b. Where such operation does not endanger the trainee or other employees.

Curriculum

The curriculum of the training program shall, at a minimum, address the following topics:

- 1. Pre-Operation Safety Inspection;
- 2. Workplace Hazards;
- 3. Safe Driving and Operating Procedures;

- 4. Loading-Carrying-Unloading of Materials; and
- 5. Operation and Safety Driving Practical.

Retraining

Employees shall be required to participate in refresher training annually. Retraining may also be deemed necessary when it has been documented that the operator has been observed to operate the PIT in an unsafe and/or inappropriate manner, involved in an accident or near-miss incident, is assigned to drive a different type of PIT or a condition in the workplace changes in a manner that could affect safe operation of the PIT as directed by this policy. Curriculum for retraining shall cover the same topics as the initial training.

Respiratory Protection

Overview

This program establishes practices and procedures for employee use of respiratory protection. We use only NIOSH-approved respiratory protection.

Implementation of this procedure ensures employee protection from respiratory hazards. All employees who use respiratory protection will be medically approved and trained per these requirements.

Definitions

Air-purifying respirator: A respirator with an air-purifying filter, cartridge, or canister that removes specific air contaminants by passing ambient air through the air-purifying element.

Atmosphere-supplying respirator: A respirator that supplies the user with air from a source independent of the ambient atmosphere. This includes supplied-air respirators (SARs) and self-contained breathing apparatus (SCBA) units.

Canister or cartridge: A container with a filter, sorbent, catalyst, or a combination, which removes specific contaminants from the air that passes through the container.

Demand respirator: An atmosphere-supplying respirator that admits breathing air to the facepiece only when negative pressure is created inside the facepiece by inhalation.

Emergency: Any occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment that may result in an uncontrolled significant release of an airborne contaminant.

Employee exposure: Exposure to a concentration of an airborne contaminant that would occur if the employee were not using respiratory protection.

End-of-service-life indicator (ESLI): A system that warns the respirator user of the approach of the end of adequate respiratory protection, (i.e. that the sorbent is approaching saturation or is no longer effective).

Escape-only respirator: A respirator meant to be used only for emergency exit.

Filter or air purifying element: A component used in respirators to remove solid or liquid aerosols from the inspired air.

Filtering facepiece (dust mask): A negative pressure particulate respirator with a filter as an integral part of the facepiece or with the entire facepiece composed of the filtering medium.

Fit factor: A quantitative estimate of the fit of a particular respirator to a specific individual; typically estimates the ratio of the concentration of a substance in ambient air to its concentration inside the respirator when worn.

Fit test: The use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual.

Helmet: A rigid respiratory inlet covering that also provides head protection against impact and penetration.

High-efficiency particulate air (HEPA) filter: 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.

Hood: A respiratory inlet covering that completely covers the head and neck and may also cover portions of the shoulders and torso.

Immediately dangerous to life or health (IDLH): An atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects or would impair an individual's ability to escape from a dangerous atmosphere.

Interior structural firefighting: The physical activity of fire suppression, rescue or both, inside buildings or enclosed structures which are involved in a fire situation beyond the incipient stage.

Loose-fitting facepiece: A respiratory inlet covering designed to form a partial seal with the face.

Negative pressure respirator (tight fitting): A respirator in which the air pressure inside the facepiece is negative during inhalation with respect to the ambient air pressure outside the respirator.

Oxygen deficient atmosphere: An atmosphere with an oxygen content below 19.5% by volume.

A physician or other licensed health-care professional (PLHCP): An individual whose legally permitted the scope of practice (i.e., license, registration, or certification) allows him or her to provide some or all of the health care services required by this program.

Positive pressure respirator: A respirator in which the pressure inside the respiratory inlet covering exceeds the ambient air pressure outside the respirator.

Powered air-purifying respirator (PAPR): An air-purifying respirator that uses a blower to force the ambient air through air-purifying elements to the inlet covering.

Pressure demand respirator: A positive pressure atmosphere-supplying respirator that admits breathing air to the facepiece when the positive pressure is reduced inside the facepiece by inhalation.

Qualitative fit test (QLFT): A pass/fail fit test to assess the adequacy of respirator fit that relies on the individual's response to the test agent.

Quantitative fit test (QNFT): An assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator.

Respiratory inlet covering: The portion of a respirator that forms the protective barrier between the user's respiratory tract and an air-purifying device or breathing air source, or both. It may be a facepiece, helmet, hood, suit, or a mouthpiece respirator with nose clamp.

Self-contained breathing apparatus (SCBA): An atmosphere-supplying respirator for which the breathing air source is designed to be carried by the user.

Service life: The period that a respirator, filter or sorbent, or other respiratory equipment provides adequate protection to the wearer.

Supplied-air respirator (SAR) or airline respirator: An atmosphere-supplying respirator for which the source of breathing air is not designed to be carried by the user.

Tight-fitting facepiece: A respiratory inlet covering that forms a complete seal with the face.

User seal check: An action conducted by the respirator user to determine if the respirator is properly seated to the face.

Responsibilities and Authorities

The Safety Coordinator:

- 1. Has the authority and responsibility for preparing, maintaining, and administering the Respiratory Protection Program.
- 2. Has the authority for review and approval of internal procedures involving the use of respiratory protection equipment.
- 3. Shall direct an annual evaluation of the Respiratory Protection Program to be performed.
- 4. Should evaluate each job with a potential for overexposure to airborne contaminants

(or exposure to an oxygen-deficient atmosphere) and determine appropriate control measures.

5. Is responsible for the administration of the Respiratory Protection training program.

All Supervisors:

- 1. Shall ensure that all respirator users comply with the requirements of this program.
- 2. Supervisors are responsible for ensuring that personnel who may need to wear respirators receive the training outlined in this program.

Employees:

- 1. Are responsible for using respiratory protection equipment properly.
- 2. Are responsible, if their job requires the use of a respirator, to perform field inspection of respirators before and after each use per the manufacturer's recommendations.
- 3. Are responsible, if their job requires the use of a respirator, for properly sanitizing and storing respiratory protection devices between uses.

Program Elements

Fit Test and Training

- 1. Before being issued a negative pressure respirator, each employee must first have completed a respirator fit test administered by a qualified person. All fit testing shall be performed per Appendix A of 1910.134.
- 2. Employees will only be issued and allowed to wear respirator types, sizes, and brands for which an acceptable fit has been achieved. Should an acceptable fit not be achieved, the associate will be notified in writing by the Safety Coordinator.
- 3. Fit testing shall be repeated at least annually.
- 4. All fit test records shall be maintained by the Safety Coordinator.
- 5. Each respirator user shall attend annual training on the safe and proper use of respiratory protection equipment.
- 6. Each respirator user shall be trained on the following:
 - a. The reason and need for respiratory protection.
 - b. The nature and extent of potential effects of the respiratory hazards to which the wearer may be exposed.
 - c. Why respiratory protection is being used, as opposed to engineering and other control measures.
 - d. Why a particular type of respiratory protection is selected for a specific respiratory hazard.
 - e. The operation, capabilities, and limitations of respiratory protection devices and their components.
 - f. Instructions to inspect, assemble, don, check proper fit and wear the respirator per the requirements of this program.
 - g. How maintenance and repair of respirators will be done.
 - h. The proper care and field sanitation of various types of respiratory protection equipment.

7. Each respirator user shall have the opportunity to handle the respirator, learn how to don it and wear it properly, check its fit, wear it in a safe atmosphere and wear it in a test atmosphere.

Facial Hair, Eye, and Face Protection and Corrective Lenses

- 1. Fit testing shall not be performed and respirators shall not be issued to any employee whose facial hair may interfere with the proper seal of the respirator.
- 2. The following conditions prohibit the use of a respirator:
 - a. Hair (beard, stubble, mustache, sideburns, low hairline, bangs) that passes between the face and the sealing surface of the respirator facepiece.
 - b. Hair (mustache, beard) that interferes with the function of one or more of the respirator valves.
 - c. Glasses having temple bars or straps that pass between the sealing surface of a respirator facepiece and the face.
 - d. Any head covering that passes between the sealing surface of a respirator facepiece and the face.
 - e. Spectacles, goggles, face shields, welding helmet, or other eye and face protective device that interferes with the seal of the respirator to the face.
 - f. Scars, hollow temples, excessively protruding cheekbones, or other unusual facial configuration that prevents the seal of a respirator facepiece to the face.
 - g. Weight fluctuations that may prevent an adequate seal.
 - h. Corrective lenses (approved safety glasses only) may be worn with half-facepiece respirators provided the glasses do not interfere with the seal of the respirator facepiece to the face.
 - i. If the attending physician indicates that the corrected vision is a requirement for the employee to safely perform his or her job and a full face respirator is required, we will provide a corrective lens spectacle kit for installation inside the full face respirator per our regular eye protection program.

Periodic Evaluation of Program Effectiveness

- 1. The respiratory protection program shall be evaluated at least annually to ensure compliance with applicable standards and recognized best management practices.
- 2. Any changes incorporated in the program as a result of program evaluation shall be communicated to respirator users through the training program.

Approved Respirators

- Only respiratory equipment, components, and replacement parts having NIOSH (National Institute for Occupational Safety and Health) approval will be purchased and used.
- 2. Components may not be interchanged between equipment of different manufacturers or different models from the same manufacturer (unless the manufacturer has designed interchangeable parts).
- 3. No respirators other than those purchased and issued (or approved) by the

Safety Coordinator may be used.

Hazard Evaluation and Respirator Selection

- 1. Each job with potential for overexposure to airborne contaminants (or exposure to an oxygen-deficient atmosphere) shall be evaluated by the Safety Coordinator. This evaluation shall be used to determine:
 - a. The type of hazard;
 - b. The identity of the hazardous contaminants;
 - c. Physical and chemical properties of the contaminants;
 - d. Potential effects on the body;
 - e. Representative airborne concentrations of the contaminants (both timeweighted average and short-term exposures, as appropriate);
 - f. Established permissible or recommended exposure levels;
 - g. Hazardous conditions that could be immediately dangerous to life or health (IDLH);
 - h. Warning properties of the contaminants.

Procedures

Issuance of Respirators

- 1. The issue of respiratory protection equipment shall be performed only by qualified representatives authorized to do so by the Safety Coordinator.
- 2. Each respirator shall be inspected before being issued to verify it is in good condition.

Use of Respirators

- 1. Respirators may be used only following the training provided.
- 2. Respirators may be used only for the specific situation and contaminants for which the respirator was issued.
- 3. Sanitary wipes shall be used to sanitize respirators between users within the same issue period.
- 4. A field inspection of each respirator shall be performed by the user before each use.
- 5. A field test for leaks shall be performed by the user before each use.
- 6. Where respirators are required, each worker shall be issued a separate respirator. Respirators are not to be shared.
- 7. Respirators shall be donned before entering the contaminated area and shall not be removed until after leaving the contaminated area.
- 8. The use of a respirator shall not authorize any employee to enter an IDLH atmosphere. Only Emergency Response personnel are authorized to enter an IDLH atmosphere (for emergency purposes only).

Maintenance of Respirators

1. Employees to whom respirators are issued shall store them in a location that is sanitary

and protected against extreme cold, excessive moisture, exposure to damaging chemicals, and mechanical damage.

- 2. Respirators shall be stored in clean, sealed plastic bags.
- 3. When defects are observed during use or inspections, the device shall be returned as soon as possible to the Safety Coordinator (or other authorized issuing department) for repair or replacement.
- 4. A respirator known to be defective shall not be used or allowed to remain in the field under any circumstances.

Special Problems

- 1. Mechanical or electronic speech transmission devices may be used only if they are NIOSH approved or are not placed inside the respirator or do not otherwise interfere with its operation.
- 2. All confined spaces are considered IDLH until proven otherwise.
 - a. Issuance of a respirator does not constitute authorization to enter a confined space.
 - b. No entry into a confined space will be performed without a confined space entry permit approved by an authorized individual.
- Respirators will not be issued for routine use in low temperatures (below –18 degrees C or 0 degrees F) or high-temperature situations without special consideration of the stresses involved on personnel and the respiratory protection equipment. This requirement shall not preclude any emergency response.

Welding, Cutting and Brazing Policy

Overview

This policy provides the safety requirements for welding, cutting, and brazing operations.

Responsibility

- 1. Each department engaged in welding, cutting, or brazing operations shall do so under this policy.
- 2. The Supervisor/Manager of each department conducting welding, cutting, or brazing operations shall be responsible for enforcing this policy.

Hazards

There are several hazards to consider when performing welding, brazing, or cutting operations. These hazards include fires, explosions, electrocution, burns, welder's flash, oxygen depletion, and toxic fumes. Each Supervisor/Manager will be responsible to ensure their personnel are aware of these hazards and have taken adequate steps to prevent such an occurrence. All flammable and combustible materials will be removed at least 35 feet from the worksite.

Personal Protective Equipment

It is the responsibility of the Supervisor/Manager to ensure each employee utilizes the appropriate equipment required to safely perform welding, cutting, or brazing operations. This includes personal protective equipment listed below:

- 1. Respirators should be used when ventilation is less than adequate.
- 2. Flame retardant clothing should be worn to prevent clothing from catching on fire.
- 3. High top boots should be worn to prevent burns to the legs and feet.
- 4. Gloves are recommended to prevent hand burns.
- 5. Personnel are required to use an approved welder's shield or goggles. All shields must be ANSI (American National Standard Institute) approved and the proper shade for the type of operation being performed.

Fire Prevention

Fire extinguishing agents will be immediately available to extinguish accidental fires.

Guards and Shields

All welding tables, areas, etc. shall be appropriately constructed to prevent bystanders from receiving unexpected flash burns if exposed to the arc flash. Solutions may include constructing panels around the welding area or hanging protective flame-retardant welding curtains around the area to prevent inadvertent flash burn.

Training

Supervisors/Managers are required to ensure personnel who weld, cut, or braze have received proper training. They are also responsible to ensure personnel are trained in the following areas:

- 1. Fire extinguisher use.
- 2. Respirator training, if they are required to use a respirator.
- 3. How to respond to an emergency (emergency numbers and alarm locations).
- 4. Confined space training, which includes all requirements of the Confined Space Policy, if personnel are required to work in confined spaces.
- 5. Personal protective equipment and the type of shield required for their specific operation.

Portable Power and Hand Tools

General Requirements

All employees engaged in the use of hand or portable power tools should be familiar with the requirements as outlined in this section. All manufacturer safety practices must be employed while using tools. This means all employees must read, know, and understand all safeguards prior to using equipment. If an individual does not understand the safe operation of a piece of equipment, he/she should notify a supervisor to obtain clarification. All required personal protective equipment must be always worn when using equipment.

Hand Tools and Equipment

- 1. All hand tools such as chisels, punches, etc. which develop "mushroomed" heads must be taken out of service and reconditioned.
- 2. Handles on hammers, axes and similar equipment that are cracked or fractured should be replaced prior to use. Care should be taken to assure the head is properly and securely attached.
- 3. Wrenches whose handles are bent or whose gripping surfaces are worn should be replaced.
- 4. Screwdrivers that are bent or whose ends are chipped should be replaced.
- 5. Tools should be stored in a secure, dry location where they won't be tampered with.
- 6. Tools should be stored in such a way that sharp edges do not present a danger when reaching into tool cribs and storage areas.
- 7. Tool cutting edges should be sharp so the tool will move smoothly and not bind.
- 8. All handles should be free of burs and splinters and should be firmly attached to the working head of the tool.

Portable Power Operated Tools and Equipment

- 1. All Grinders, saws and similar equipment must be fitted with appropriate machine guarding as specified by the manufacturer.
- 2. The adjustable tongue on the top side of the grinder must be properly guarded to prevent physical contact by the operator.
- 3. All corded electrically operated tools and equipment must be effectively grounded by either a grounding prong or an approved double-insulated case. Inspect all prongs to ensure they are not bent or otherwise damaged and all cases to ensure they are not cracked or damaged.
- 4. All electric cords must be in good condition; free of frays or other physical defects.
- 5. Pneumatic hoses must be free of damage or deterioration.

Abrasive Wheel Equipment

- 1. The work rest shall be within an inch of the wheel.
- 2. The adjustable tongue on the top side of the grinder must be withing ¼ inch of the wheel.

- 3. The grinder is mounted in such a way that it is secure and will not shift or tip.
- 4. On-off control switches are clearly marked in red and readily accessible to the operator for easy deactivation of equipment in case of emergency.
- 5. The maximum RPM rating of the grinder is clearly posted and the maximum rating of the wheel does not exceed the grinder rating.
- 6. Grinding wheels are not cracked or otherwise damaged.
- 7. Grinders that use a coolant must be equipped with splash guards to prevent coolant from coming into contact with the operator.

Powder Actuated Tools

- i) Powder-actuated tools are stored in their own locked container when not being used.
- ii) All powder-actuated tools will be left unloaded until they are actually used.
- iii) Only trained and authorized employees will use powder-actuated tools.

Appendix Fire Risk Survey

Type of Fire Hazard	Location	Emergency Actions	Required PPE

Completed by:_____

Date:_____

Appendix B General Fire Prevention Checklist

Use this checklist to ensure fire prevention measures conform to the general fire prevention practices.

🗆 Yes 🗆 No	Is the local fire department acquainted with your facility, its location, and specific hazards?
🗆 Yes 🗆 No	If you have a fire alarm system, is it tested at least annually?
🗆 Yes 🗆 No	If you have interior standpipes and valves, are they inspected regularly?
🗆 Yes 🗆 No	If you have outside private fire hydrants, are they on a routine preventive maintenance schedule and flushed at least once a year?
🗆 Yes 🗆 No	Are fire doors and shutters in good operating condition?
🗆 Yes 🗆 No	Are fire doors and shutters unobstructed and protected against obstructions, including their counterweights?
🗆 Yes 🗆 No	Are automatic sprinkler system water control valves, air pressure, and water pressure checked weekly or periodically?
🗆 Yes 🗆 No	Has responsibility for the maintenance of automatic sprinkler systems been assigned to an employee or contractor?
🗆 Yes 🗆 No	Are sprinkler heads protected by metal guards?
🗆 Yes 🗆 No	Is proper clearance maintained below sprinkler heads?
□ Yes □ No	Are portable fire extinguishers provided in adequate number and type?
🗆 Yes 🗆 No	Are fire extinguishers mounted in readily accessible locations?
🗆 Yes 🗆 No	Are fire extinguishers recharged regularly with the recharge date noted on an inspection tag?
□ Yes □ No	Are employees periodically instructed in the use of extinguishers and fire protection procedures?

Completed by:_____

Date:_____

Appendix C Exits Checklist

Use this checklist to evaluate the compliance with common practices on emergency exit routes.

🗆 Yes 🗆 No	Is each exit marked with an exit sign and illuminated by a reliable light source?
🗆 Yes 🗆 No	Are the directions to exits, when not immediately apparent, marked with visible signs?
□ Yes □ No	Are doors, passageways, or stairways that are neither exits nor access to exits, and which could be mistaken for exits, marked "NOT AN EXIT" or contain other appropriate markings?
🗆 Yes 🗆 No	Are exit signs provided with the word "EXIT" in letters at least 5 inches high and with lettering at least one inch wide?
□ Yes □ No	Are exit doors side-hinged?
🗆 Yes 🗆 No	Are all exits kept free of obstructions?
□ Yes □ No	Are there at least two exit routes provided from elevated platforms, pits, or rooms where the absence of a second exit would increase the risk of injury from hot, poisonous, corrosive, suffocating, flammable, or explosive substances?
🗆 Yes 🗆 No	Is the number of exits from each floor of a building and from the building itself appropriate for the building occupancy? (NOTE: Do not count revolving, sliding, or overhead doors when evaluating whether there are sufficient exits.)
🗆 Yes 🗆 No	Are exit stairways that are required to be separated from other parts of a building enclosed by at least one-hour fire-resistant walls (or at least two-hour fire-resistant walls in buildings over four stories high)?
🗆 Yes 🗆 No	Are the slopes of ramps used as part of emergency building exits limited to one foot vertical and 12 feet horizontal?
🗆 Yes 🗆 No	Are glass doors or storm doors fully tempered, and do they meet the safety requirements for human impact?
🗆 Yes 🗆 No	Can exit doors be opened from the direction of exit travel without the use of a key or any special knowledge or effort?

🗆 Yes 🗆 No	Are doors on cold storage rooms provided with an inside release mechanism that will release the latch and open the door even if it's padlocked or otherwise locked on the outside?
🗆 Yes 🗆 No	Where exit doors open directly onto any street, alley, or another area where vehicles may be operated, are adequate barriers and warnings provided to prevent employees from stepping into the path of traffic?
🗆 Yes 🗆 No	Are doors that swing in both directions and are located between rooms where there is frequent traffic equipped with glass viewing panels?

Completed by:_____

Date:_____

Appendix D Flammable and Combustible Material Checklist

Use this checklist to evaluate the storage of flammable and combustible materials:

□Yes □No	Are combustible scrap, debris, and waste materials such as oily rags stored in covered metal receptacles and removed from the worksite promptly?
□Yes □No	Are approved containers and tanks used for the storage and handling of flammable and combustible liquids?
□Yes □No	Are all connections tight on drums and combustible liquid piping vapor and liquid?
□Yes □No	Are all flammable liquids kept in closed containers when not in use?
□Yes □No	Are metal drums of flammable liquids electrically grounded during dispensing?
□Yes □No	Do storage rooms for flammable and combustible liquids have appropriate ventilation systems?
□Yes □No	Are "NO SMOKING" signs posted on liquefied petroleum gas tanks?
□Yes □No	Are all solvent wastes and flammable liquids kept in fire-resistant covered containers until they are removed from the worksite?
□Yes □No	Is vacuuming used whenever possible rather than blowing or sweeping combustible dust?
□Yes □No	Are fuel gas cylinders and oxygen cylinders separated by distances or fire- resistant barriers while in storage?
□Yes □No	Are fire extinguishers appropriate for the materials in the areas where they are mounted?*
□Yes □No	Are appropriate fire extinguishers mounted within 75 feet of outside areas containing flammable liquids and within 10 feet of any inside storage area for such materials?*
□Yes □No	Are extinguishers free from obstruction or blockage?*

□Yes □No	Are all extinguishers serviced, maintained, and tagged at least once a year?*
□Yes □No	Are all extinguishers fully charged and in their designated places?*
□Yes □No	Where sprinkler systems are permanently installed, are the nozzle heads directed or arranged so that water will not be sprayed into operating electrical switchboards and equipment?
□Yes □No	Are "NO SMOKING" signs posted in areas where flammable or combustible materials are used or stored?
□Yes □No	Are safety cans utilized for dispensing flammable or combustible liquids at the point of use?
□Yes □No	Are all spills of flammable or combustible liquids cleaned up promptly?
□Yes □No	Are storage tanks adequately vented to prevent the development of an excessive vacuum or pressure that could result from filling, emptying, or temperature changes?

*(NOTE: Use of fire extinguishers is based on policy regarding employee fire fighting in your Emergency Action Plan and local fire code.)

Completed by:_____

Date:_____
Appendix E Computation of Actual Noise Reduction Ratings (NRR)

- The degree of protection that a hearing protection device provides is referred to as the Noise Reduction Rating or NRR. Because the listed NRR is established for C-weighted noise measurements, and our measurements have been collected using an A-scale, 7 dB will be subtracted from the NRR to take this into account.
- NRRs for ear protection are established in laboratory settings under ideal conditions, and it is unlikely that the noise reduction in industrial areas will be as substantial as that recorded in the lab. Because of these differences between laboratory and "real world" performance, the following NIOSH derating scale will be used when calculating noise reduction:

Hearing Protection Device	Derating scale
Earmuffs	25% reduction
Formable earplugs	25% reduction
All other earplugs or semi-aural devices	25% reduction

- 1. Using this method, a formable earplug with a NRR of 30 dB actually provides:
 - a. 30 dB (listed NRR) 7 (A-scale to C-scale adjustment) = 23 dBA reduction laboratory measurement
 - b. 23 dBA x 75% = **17.3 dB** of "real-world" noise reduction.
- 2. Products with the highest NRR are not always the best choice for hearing protection. Too much noise reduction, when not necessary, can lead to degradation of communication, especially in individuals who have some degree of hearing loss.
- 3. Communication problems associated with maximum NRR devices may lead to accidents and poor employee acceptance of the hearing conservation program.
- 4. The following general guide to protection levels will be used:

If the device reduces the noise to:	Then the protection is:
> 85 dB	Insufficient
80 - 85 dB	Acceptable
75 - 80 dB	Good
70 - 75 dB	Acceptable
<70 dB	Too high

Appendix F Forklift Operator's daily checklist

Forklift Number:

Date:

Time:

Driver:

ltem	OK all boxes must be filled x or V	Actions taken
Tires		
Check all tires and look for any visual wear and damage.		
wheel nuts and pressure		
Fluids		
Check engine oil, hydraulics, battery, fuel, and coolant;		
power steering		
Settings		
Mirrors adjusted and clean; windscreens condition and		
clean		
Air filter indicator (if diesel)		
Fuel		
Security of LPG gas cylinder, tank in date and condition of		
the system; compliance plate for gas installation		
Seating		
Check the condition and adjustment of seating		
Warning devices		
Check lights, horn and reversing beeper		
Capacity		
Check load capacity plate is fitted, legible and correct		
Mast		
Check mast for any wear to lift chains and guides, inspect		
hydraulic cylinders, look for any leaks		
Forks		
Inspect forks for any sign of damage		
Seatbelt		
Make sure the seatbelt is securely fastened		
Once started observe:		
Controls		
After start up, check all pedals and controls		
Brakes		
Check brakes and parking brake for proper operation		

JOB HAZARD ANALYSIS (JHA)										
a. TASK DESCRIPTION:								JHA#	0)1
b. FACILITY/DEPT:										
								New As	sessment Rev	ised Assessment
2. ANALYSIS CONDUCTE	D BY	1					1		(
a. Name (Last, First)		Signature:					b. Title/P	osition		
c. Reviewed By (Last, First, Position)							d. Date Y		equency)	
The JHA process follows	the first 3 steps of the Risk		Risk Assessment Mat	trix	Frequent: Continuous regular, or inevitable occurences	Likely: numero occurer	Several or us ices	Occasional: Sporadic or intermittent occurrences	Seldom: Infrequent	Unlikely: possible occurrence but improbable
Step 1-Identify the haza	ırds		Catastrophic: Death or unacceptable loss or damage	1	ЕН		EH	н	н	M
Step 2–Assess the bazar	ds		Critical: Severe injury, ilness, loss or damage Moderate: Minor injury,		EH		н	н	M	L
Stop 2 Develop control	and make risk desisions		ilness, loss or damage Negligible: Minimal injury, ilness, loss or damage	IV	м		L	L	L	L
										-
a. SUBTA	SK/SUBSTEP	b. BODY PART at	c.+	IAZA	RD		d. RISK LEVEL		e. PPE	
JHA FORM, MAR 2019 3. JOB TASK STEPS HAZA	RD ANALYSIS (continued)									Page 1 of ;
4. OTHER SAFETY PRECAUTIONS (ENGINEERING OR ADMINISTRATIVE CONTROLS)										
5. TRAINING/LICENSING/CERTIFICATION REQUIRED										
EXTREMELYHIGH (EH)	HIGH (H)	MEDIU	IM (M)	(L)						
JHA FORM, MAR 2019										Page 2 of 2

Appendix G

Appendix H

Good Catch Report

Good Catch Report Form

A good catch is a potential hazard or incident that has not resulted in any personal injury or property damage. Some examples of good catches are unsafe conditions, improper use of equipment, use of faulty equipment, or not following proper procedures. It is everyone's responsibility to report and correct any of these potential hazards immediately. Please use this form to report a good catch and assist in preventing future incidents and making our workplace safer.

When and Where:

- Department:
- Location:
- Building (if applicable):
- Date of Incident:
- Time of Incident:
- Date Reported:

Circle All Appropriate Conditions:

- Good catch
- Safety concern
- Safety suggestion
- Other (describe)

Circle Type of Concern:

- Unsafe Act
- Unsafe Condition of Area
- Unsafe Condition of Equipment
- Unsafe Use of Equipment
- Other (describe):

Description:

- Describe the potential incident/hazard/concern and possible outcome (in as much detail as possible):
- Safety Suggestion:

Contact Information (optional):

- Name:
- Phone Number:
- Email Address:

Appendix I Confined Space Permit

CONFINED SPACE ENTRY PERMIT

Confined Space Location/Description/ID Number	Date:
---	-------

Purpose of Entry

Time In:	
Time Out:	

Permit Canceled Time: _____ Reason Permit Canceled: _

Supervisor:

Rescue and Emergency Services-

Hazards of Confined Space	Yes	No	Special Requirements	Yes	No
Oxygen deficiency			Hot Work Permit Required	1	
Combustible gas/vapor			Lockout/Tagout	1	
Combustible dust			Lines broken, capped, or blanked		
Carbon Monoxide			Purge-flush and vent		
Hydrogen Sulfide			Secure Area-Post and Flag		
Toxic gas/vapor			Ventilation		
Toxic fumes			Other- List:	1	
Skin- chemical hazards			Special Equipment		
Electrical hazard			Breathing apparatus- respirator		
Mechanical hazard			Escape harness required	2	
Engulfment hazard			Tripod emergency escape unit	1	
Entrapment hazard			Lifelines		
Thermal hazard			Lighting (explosive proof/low voltage)		
Slip or fall hazard			PPE- goggles, gloves, clothing, etc.		
NAMES OF A CONTRACT OF A CONTRACT OF		а. С	Fire Extinguisher		20

Communication Procedures:

DO NOT ENTER IF PERMISSABLE ENTRY LEVELS ARE EXCEEDED		Test Start and Stop Time Start	e: Stop
	Permissable Entry Level		
% of Oxygen	19.5 % to 23.5 %	0	5
% of LEL	Less than 10%		
Carbon Monoxide	35 PPM (8 hr.)		
Hydrogen Sulfide	10 PPM (8 hr.)		
Other			5

Name(s) or Person(s) testing: ____

Test Instrument(s) used- Include Name, Model, Serial Number and Date Last Calibrated:

CFM-Ventilation	Size-Cubic Feet	Pre Entry Time	Central Notified Before Entrance	Time Notified:	
			Central Notified After Entrance	Time Notified:	

Authorized Entrants

Authorized Attendants

PERMIT AUTHORIZATION

I Certify that all actions and conditions necessary for safe entry have been performed.		
Name-Print:		
Signature:		
	direct.	
Date:	Time:	

Entry Procedure Checklist: Complete the following steps before, during, and after a confined space entry:

Step 1

Obtain a Permit-Confined Space Entry Form from Program Coordinator.

Step 2

Notify Supervisor before the Confined Space Entry

Step 3

Verify Confined Space Meter has been calibrated and is in working order

Step 4

Complete the top portion of the Permit-Confined Space Entry Form

Step 5

Ensure all rescue equipment (e.g. tripod, body-belt, lanyard) is in place prior to entry

Step 6

Monitor the confined space with the MSA 4-Gas Detector prior to entry. The entrant and attendant should sign the permit authorization section on the bottom of the permit to ensure all actions and conditions necessary for safe entry have been performed.

Step 7

Employee entering the confined space should wear the 4-Gas Detector after the pre-atmosphere test. The employee should also have a full body harness and lanyard attached to the rescue tripod. Employee shall have a radio and any other necessary personal protective equipment.

Step 8

Employee can enter the confined once Step 7 is completed. The entrant and attendant should complete the Hazards of Confined Spaces and Special Requirements Section of the Permit-Confined Space Entry Form once the employee is within the confined space. The entrant should also gather the % Oxygen, % Explosive Gases, Carbon Monoxide, and Hydrogen Sulfide readings and communicate them to the attendant to place on the Permit Form.

Step 9

The attendant should maintain constant communication with the entrant until the entrant has exited the confined space.

Step 10

The attendant should contact Supervisor once the entrant has exited the confined space.

Step 11

The Permit-Confined Space Entry Form should be given to program coordinator, to file in the Confined Space Records.

Appendix J

Motor Vehicle Use Policy

Purpose and Scope:

- A. The purpose of this policy is to communicate the standards and practices for the use and operation of vehicles on behalf of the City of Deadwood ("City").
- B. This Motor Vehicle Operation Policy and Procedure ("Policy") applies to the use and operation of City-owned, leased, or rented motor vehicles ("City Vehicles") by employees and authorized temporary or contract personnel ("Operators").
- C. This Policy sets minimum requirements and may be supplemented by individual department procedures.
- D. City departments with established motor vehicle operation, inspection, parking, or backing procedures must meet or exceed these minimum requirements.

City Vehicle Operation:

A. Responsibilities

- 1. Operators are responsible for maintaining their City Vehicle and operating per federal, state, and local laws, safe driving practices, and the minimum requirements of this Policy.
- 2. Department heads and supervisors are responsible for notifying affected personnel of the requirements of this Policy.

B. General Operating Standards

- The assignment and use of a City Vehicle may be revoked, modified, or otherwise changed by a supervisor. The City reserves the right to obtain a motor vehicle report on any Operator at its discretion.
- 2. Operators must have a valid and appropriate driver's license issued for the class of City Vehicle they operate.
- 3. Operators are responsible for the safe operating condition of the City Vehicle. An operator level pre-trip inspection per the supplied checklist should be done before the use of any City Vehicle.

- Vehicles with an unsafe condition that affects safe operation may not be driven. Vehicles with an unsafe condition will be locked and tagged out by the Fleet Foreman or his/her designee to prevent use.
- 5. Seat belts must be worn by the Operator and all occupants.
- 6. Except for those positions for which a firearm is issued by the City, carrying firearms in City Vehicles is prohibited. Carrying illegal substances, except in the normal course of work duties, in City Vehicles is prohibited.
- 7. City Vehicles may not be used to pull personal trailers, boats, campers, or any similar items. City Vehicles will not be used for any personal or non-City commercial use. City Vehicles may only be used for City-related purposes.
- 8. While operating a City Vehicle, Operators shall not: (a) type or read messages on any electronic device; (b) check voicemail messages; (c) or use the internet or social media on any electronic device.
- 9. The use of cell phones while operating a City Vehicle is prohibited. The use of a cell phone with a hands-free device or other electronic equipment should be avoided while driving a City Vehicle. If a hands-free device is not available and use of a cell phone is necessary (including answering a phone call), the Operator must pull over to a safe place and put the vehicle in "Park".
- 10. Smoking is prohibited in all City Vehicles.
- 11. Vehicle engines must be turned off while refueling. Smoking is prohibited within 50 feet of refueling areas.
- 12. City Vehicles may only be operated by City employees, volunteers, or any other person authorized by the city administrator to operate the vehicle.
- 13. Only City personnel are allowed to ride in City Vehicles. Other personnel are allowed for business purposes only with the approval of the department head.
- 14. Operators shall not tamper with or disable vehicle safety systems, install enhancing technology, or perform any modification to a City Vehicle without the authorization of the department head.
- 15. All exterior vehicle lighting should be on at all times.

16. The maximum allowable time that an employee is allowed to operate a City Vehicle is 12 hours based on when the employee's shift started to when the shift ends regardless of breaks taken (i.e. 4:00 AM-4:00 PM). An 8 hour rest period is then required before the future operation of City Vehicles.

C. Parking Requirements

- 1. Operators must exercise reasonable care while parking City Vehicles. Operators should plan their park by surveying the parking location, identifying potential hazards, and evaluating the parking options. Before moving any parked vehicle, a perimeter inspection shall be completed to ensure the vehicle can be safely moved.
- 2. When possible, Operators of City Vehicles must park the City Vehicle by backing into the parking spot or by pulling through a parking spot so the first motion when exiting the parking spot is a forward motion.
- 3. If chocks are available, all City Vehicles must use the chocks when the situation dictates (i.e. parking on a steep slope, parking on slippery surfaces, heavy load, etc.) If in doubt the employee should use chocks. All-City Vehicles greater than 26,000 GVWR must be chocked when parked.

D. Backing Procedures

- 1. Operators must exercise care while backing City Vehicles. If a passenger is available, the passenger shall get out and guide the driver into the parking spot, remaining visible at all times to the driver.
- 2. If the Operator is not sure whether the area behind the vehicle is clear when backing, the Operator must stop, get out, and check the area. Before the driver exits, the driver shall turn on the emergency flashers to alert nearby traffic that they are out of the vehicle.

E. Driving Violations

- 1. Any costs associated with tickets, fines, or other penalties incurred for violation of federal, state, or local regulations are the responsibility of the Operator.
- 2. Operators must immediately inform their supervisor of (1) any driving violations arising out of the operation of a City Vehicle; and (2) all serious violations, license suspension or revocations arising out of the operation of personal vehicles outside of the scope of employment with the City. Serious violations include, but are not limited to Driving

Under the Influence (DUI), Driving While Intoxicated (DWI), reckless driving, endangering the lives of others, racing, hit, and run, and assault from the operation of a motor vehicle.

- 3. Operators convicted of any of the following charges while driving any City Vehicle may be subject to disciplinary action up to and including termination:
 - a. DUI/DWI;
 - b. Reckless driving or racing;
 - c. A felony involving a motor vehicle;
 - d. Crime involving the knowing transportation, possession, or unlawful use of controlled or restricted drugs;
 - e. Leaving the scene of a vehicular accident: or
 - f. Any other violation the City deems severe enough to warrant disciplinary action.

F. Loss of Driving Privileges

 City personnel are not permitted to drive a City Vehicle if they do not have a valid driver's license or if the City revokes an Operator's driving privileges of City Vehicles. To retain or recover driving privileges, the City may require the Operator to attend instructional driving courses.

G. Accident and Incident Reporting

- If involved in a collision with a City Vehicle, call 911 to report the collision, and immediately notify your supervisor. All collisions occurring within the scope of the Operator's employment, regardless of fault or severity, must be reported on the AUTO/PROPERTY CLAIM NOTICE form.
- 2. The Operator should exchange insurance/contact information with the other party. Do not comment upon, provide an opinion about, assume, or admit fault. Never become involved in an argument about the accident. Always provide complete cooperation with law enforcement officers.

H. Vehicle Type and Use Requirements and Restrictions

- 1. Employee-Owned Vehicles
 - a. The use of personal vehicles for business-related purposes is discouraged. Operators should utilize pool cars or City rental vehicles for City business whenever possible.
 - b. Operators using personal vehicles for City business must maintain liability

insurance. The City is not responsible for any loss or damage to an employee's vehicle or personal belongings contained in the vehicle and will not pay or reimburse Operators for any such loss, damage, or applicable insurance policy deductible.

- 2. Pool Vehicles
 - a. Pool vehicles are vehicles maintained at City business locations for the businessrelated use of employees or other authorized users on a short-term basis.
 - b. Operators must return pool vehicles in a clean condition and with a full gas tank.
 Operators must remove garbage and refuse and wash the vehicle if necessary. Pool vehicles requiring repairs must be immediately reported to the department head.
- 3. Assigned City Vehicles
 - a. Employees may be assigned specific City Vehicles for business and commuting purposes. This policy and procedure applies to assigned vehicles, including the requirement that only City personnel are authorized to ride in or operate a City Vehicle.

Responsibility

It is the responsibility of staff and patrons to adhere to this policy. It is the responsibility of the Safety Coordinator or designee to review and update this policy as needed. Any substantive changes must be approved by the City Commission.