Safety and Health Procedures

For

Millwright Sites LLC

Hereafter referred to as MwS, us

SAFETY AND HEALTH PROCEDURES FOR
Millwright Sites LLC

Safety Policy Statement

Millwright Sites LLC is committed to providing a healthy and safe workplace for all its employees. It is Millwright Sites LLC's intent to comply with all applicable laws and regulations, including the Federal Occupational Safety and Health Act, regulations and standards issued by the Occupational Safety and Health Administration, and the state and local laws. Beyond complying with the law, Millwright Sites LLC will strive to implement a safety and health program that will reduce or eliminate workplace injuries and illnesses.

Management, supervisors, and employees share the responsibilities for safety and health. Management accepts the responsibility for leadership of the safety and health program, for the program's effectiveness and improvement, and for providing the safeguards required to ensure safe working conditions. Supervisors are responsible for developing the proper attitudes toward safety and health in them and in the employees they supervise. Supervisors must also ensure that all operations are performed with the highest regard for the safety and health of all personnel involved.

Employees are responsible for wholehearted, genuine cooperation with all aspects of the safety and health program. Employees should be alert to unsafe conditions and report them immediately to their supervisor. Employees must follow all company safety and health rules. Employees who fail to comply with company safety and health rules are subject to disciplinary action, up to and including termination of employment.

Millwright Sites LLC's safety and health program includes the following elements:

- conducting safety and health inspections to find and eliminate unsafe working conditions or practices, to control health hazards, and to comply with all applicable safety and health standards;
- training employees in good safety and health practices;
- encouraging employees to get involved in improving workplace safety;
- providing any necessary personal protective equipment and instructions for its use and care;
- developing and enforcing safety and health rules and requiring employees to comply with these rules as a condition of employment;
- investigating every accident to determine its cause and correct the problem; and
- establishing a system of recognition and awards for outstanding safety performance.

Safety Audit Policy and Checklist

Purpose

The Safety Department conducts an annual audit of Millwright Sites LLC's safety program. The purpose of the audit is to rate safety program effectiveness, identify program strengths and weaknesses, determine where improvements are needed, and obtain commitment and target dates from managers for correcting problems. The audit is intended to improve safety and the working environment at Strata Ferrous Inc. The audit is not conducted for purposes of finding fault or "placing the blame."

Audit Procedures

Millwright Sites LLC's Safety Manager is responsible for ensuring that a safety program audit is conducted at least annually. The Safety Manager, in consultation with Millwright Sites LLC's Safety Committee, and supervisors or department heads responsible for the areas that were audited.

The Safety Manager is responsible for working with the supervisor of any area in which safety deficiencies are identified. The Safety Manager and the supervisor, in consultation with the Safety Committee, will establish a corrective action plan and a timetable for its implementation.

Audit Checklist

The following checklist is provided as a general guide for the Audit Team to use in conducting its investigations. Team members also are encouraged to make a written record of other pertinent findings or statements by workers. Audit Team members also should go beyond the "yes/no" format of the checklist by focusing on the root causes and underlying reasons for any safety deficiencies they find.

Administrative Controls

□ Yes □ No Are productive safety committee meetings held at regular intervals?

□ Yes □ No Are safety rules effectively communicated to employees?

□ Yes □ No Are the rules consistently enforced?

□ Yes □ No Are emergency evacuation instructions posted conspicuously in work areas?

□ Yes □ No Are instructions clear, accurate, and up to date?

□ Yes □ No Do employees participate in emergency preparedness training and evacuation drills?

□ Yes □ No Are accidents reported and investigated?

□ Yes □ No Do accident investigations focus on identifying an accident's root cause versus laying blame?

□ Yes □ No Do accident investigations produce constructive recommendations aimed at avoiding or preventing future occurrences?

At a minimum, do employees receive training in:

□ Yes □ No Hazard communication?

□ Yes □ No Chemical disposal?

□ Yes □ No Hazardous materials?

□ Yes □ No Fire extinguisher use?

□ Yes □ No Millwright Sites LLC's safety rules?

Housekeeping and Work Environment

□ Yes □ No Is the lighting adequate in work areas?

□ Yes □ No Are work areas reasonably clean and tidy?

□ Yes □ No Are floors kept clean and dry?

□ Yes □ No Are ladders and step-stools in good condition and used in the manner for which they were designed?

□ Yes □ No Are hand trucks available to employees for routine lifting tasks?

□ Yes □ No Are hand trucks in good condition?

□ Yes □ No Are hand trucks used appropriately?

□ Yes □ No Are workstations and tools designed to reduce ergonomic-related injuries? Consider the following:

□ Yes □ No Are work surfaces adjustable in height so employees can avoid harmful stretching, bending, or stress?

□ Yes □ No Are tools and equipment designed to minimize damaging vibrations?

□ Yes □ No Are processes and equipment designed to minimize potentially damaging repetitive motions?

□ Yes □ No Are employees prohibited from eating or drinking while operating machinery or handling materials?

□ Yes □ No Is the "no eating/drinking" rule adequately enforced?

□ Yes □ No Are adequate personal hygiene facilities provided?

□ Yes □ No Are they kept in sanitary condition?

Access and Egress

□ Yes □ No Are stairs of sturdy design?

□ Yes □ No Are stairs well lit?

□ Yes □ No Are railings provided on all open sides of exposed stairways?

□ Yes □ No Do steps have non-skid surfaces?

□ Yes □ No Are exit doors and passages clearly labeled?

□ Yes □ No Are exits unobstructed?

□ Yes □ No Are exit signs adequately illuminated by general room lighting or internal lighting?

□ Yes □ No Are aisles and passageways well lit?

□ Yes □ No Are hallways and escape routes equipped with adequate emergency lighting?

□ Yes □ No Is the emergency lighting tested regularly?

□ Yes □ No Are fire doors kept closed?

□ Yes □ No Are all fire doors operable and unobstructed?

□ Yes □ No Are all fire doors side-hinged?

□ Yes □ No Are all fire doors mounted so they swing in the direction of the escape?

□ Yes □ No Are floors free from liter, protrusions, holes, and obstructions?

□ Yes □ No Is adequate drainage provided for continuously wet floors?

□ Yes □ No Are mats and carpeting in good condition?

Materials Handling and Storage

□ Yes □ No Are work areas free from accumulated materials that could cause tripping, fires, explosions, or pest harboring?

□ Yes □ No Is there at least an 18 inch clearance between ceiling mounted sprinkler heads and stored materials?

□ Yes □ No Are cabinets and storage areas that contain flammable materials labeled in compliance with the National Fire Prevention Association's standards (NFPA-704)?

□ Yes □ No Is storage shelving secure, in good condition, and not over loaded or crowded?

□ Yes □ No Does storage shelving have a forward edge lip to contain materials and spills?

□ Yes □ No Are the waste containers in work areas adequate to handle disposal needs?

□ Yes □ No Are closable metal containers provided for oily rags?

□ Yes □ No Are containers labeled with the identity and general hazards of the contents?

□ Yes □ No Are containers securely capped or sealed?

□ Yes □ No Are flammable and combustible liquids stored in containers labeled as such?

□ Yes □ No Are flammable and combustible liquids stored in approved cabinets marked "Flammable"?

□ Yes □ No Are the cabinets properly ventilated?

□ Yes □ No Are flammable liquids in quantities greater than one liter stored in safety cans designed for flammable liquid storage?

□ Yes □ No If flammable liquids are used in large volumes, is the mechanical ventilation adequate to remove vapors before they reach hazardous concentrations?

□ Yes □ No Can engineering controls be introduced at a reasonable cost to effectively isolate workers from hazards chemicals—e.g., replacing manual pouring and handling with a chemical piping system?

□ Yes □ No Are storage areas for flammable materials separated by at least 20 feet from any heat source?

□ Yes □ No Are incompatible materials—e.g., acids and bases—stored separately?

□ Yes □ No Are metal drums that are used for storing and dispensing flammable liquids properly grounded?

□ Yes □ No Are "**NO SMOKING/NO OPEN FLAMES**" signs posted in areas where flammables are used or stored?

Compressed Gases

□ Yes □ No Is each compressed gas cylinder clearly marked with the identity of its contents?

□ Yes □ No Are compressed gas cylinders regularly inspected for safe operating condition?

□ Yes □ No Are gas cylinders secured so they will not tip over or fall?

□ Yes □ No Are valve caps in place on all gas cylinders that are not in use?

□ Yes □ No Are all gas lines leading from compressed gas supplies labeled as to identity of the gas, the work served, and emergency telephone numbers?

□ Yes □ No Are gas cylinders storage areas properly ventilated?

□ Yes □ No Are "**NO SMOKING/NO OPEN FLAMES**" signs posted in areas where gas cylinders are used or stored?

□ Yes □ No Are oxygen cylinders stored a minimum of 50 feet from flammable gas cylinders or, alternatively, are the oxygen and gas cylinders separated by a fire wall with a 0.5 hour fire rating?

Electrical Safety

□ Yes □ No Is all electrical equipment grounded or double insulated?

□ Yes □ No Are all electrical tools, appliances, and instruments in good repair?

□ Yes □ No Is all electrical equipment Underwriter's Laboratory or Factory Mutual approved?

□ Yes □ No Do breaker boxes have a minimum of a 30 inch wide clearance in front of them so that they always are readily accessible?

□ Yes □ No Are all circuit breakers and fuses labeled according to the rooms, systems, or equipment they control?

□ Yes □ No Are all circuit breakers and fused circuits labeled to indicate whether they are in the open (off) or closed (on) position?

□ Yes □ No Are only properly rated fuses used?

□ Yes □ No Are all electrically live parts guarded?

□ Yes □ No Are all electrical boxes and panels covered with faceplates to prevent exposure to live wires?

□ Yes □ No Are extension cords approved by Underwriter's Laboratory or Factory Mutual?

□ Yes □ No Are extension cords in good repair?

□ Yes □ No Could permanent wiring be installed to eliminate the need for extension cords?

□ Yes □ No Are extension cords used properly? The following are examples of IMPROPER use:

□ Yes □ No Placing or using extension cords in pathways or other areas where they can be trip hazards or where repeated abuse can cause deterioration of insulation.

□ Yes □ No Routing extension cords over metal objects.

□ Yes □ No Running extension cords through holes in walls or ceilings or through doorways or windows.

□ Yes □ No Placing extension cords under carpet, rugs, or heavy objects.

□ Yes □ No Suspending extension cords or other electrical lines unsupported across rooms or passageways.

Fire Safety/ Chemical Splash Stations

□ Yes □ No Are fire extinguishers charged, ready, and accessible?

□ Yes □ No Do employees receive annual instruction on the proper use of fire extinguishers?

□ Yes □ No Are fire extinguishers located where flammable or combustible liquids are used?

□ Yes □ No Are fire extinguishers located within 10 feet to 25 feet of each storage room door?

□ Yes □ No Are extinguishers mounted so that the top is not more than 5 feet above the floor or not more than 3 feet if they weigh more than 40 pounds?

□ Yes □ No Are extinguishers suitable for the class of fire anticipated in each area?

□ Yes □ No Are extinguishers inspected annually and labeled as inspected?

□ Yes □ No Are fire alarm “pull stations” directly and readily accessible and spaced at intervals of no more than 200 feet?

□ Yes □ No Is the alarm system tested on a regular basis?

□ Yes □ No Are first aid kits available, in good condition, and plainly marked?

□ Yes □ No Do the first aid kits include a full complement of physician approved supplies?

□ Yes □ No Are eyewash and safety showers installed within 25 feet of work areas where corrosive chemicals are used?

□ Yes □ No Are safety showers and eyewash fountains easily accessible?

□ Yes □ No Are employees familiar with operation of safety showers and eyewash fountains?

□ Yes □ No Are safety showers and eyewash fountains tested regularly?

Personal Protective Equipment

□ Yes □ No Is eye protection provided and used by all personnel in work areas in which there are flying particle hazards or risks of exposure to corrosive, irritating, or toxic chemicals?

□ Yes □ No Is eye protection provided for all guests that enter work areas where eye protection is required?

□ Yes □ No Are appropriately rated gloves provided for work with different chemical types?

□ Yes □ No Are gloves used by employees when they are needed?

□ Yes □ No Do employees exposed to crushing hazards wear steel toe shoes?

□ Yes □ No Do employees working with corrosive, irritating, or toxic chemicals wear protective clothing to guard against chemical splashes?

□ Yes □ No Are change rooms provided with separate storage facilities for street clothes and protective clothing?

Hazard Reporting Form

Department: _____

Location of hazard: _____

Reporting Employee: _____

Date reported: _____

Date first noticed: _____

Type of Hazard

Check all that apply:

- ❑ Walking or working surface
- ❑ Work practice
- ❑ Machine
- ❑ Physical
- ❑ Electrical
- ❑ Airborne contaminants
- ❑ Workstation design
- ❑ Tool
- ❑ Chemical
- ❑ Fire
- ❑ Noise
- ❑ Other

Description of hazard:

Description of possible control methods to correct the hazard:

Describe how the hazard was corrected:

Additional information:

Prepared: _____ Date: _____

Housekeeping Guidelines

Millwright Sites LLC maintains a workplace that is neat and clean, weather the facilities are our own or a client's. Maintaining workplace or worksites in an orderly and sanitary condition is to ensure the safety of our employees, our client's employees, and visitors. All employees should adhere to the following housekeeping guidelines.

Industrial Facilities

The following guidelines apply to all Millwright Sites LLC, and Client facilities:

- Assign a place to store all tools and materials and keep them there when not in use.
- Make sure tools are clean and in good working order before putting them away.
- Keep work areas clean and free of unnecessary clutter. Dust and debris can catch fire.
- Keep aisles, stairs, and doors clear. Don't leave anything behind that others could trip over.
- Maintain clear and unobstructed access to emergency equipment; such as fire extinguishers and eye wash units.
- Make sure you have enough light for the task.
- Smoking is prohibited inside buildings and in certain outdoor restricted areas.
- Don't leave sharp edges sticking out.
- Clean up spills promptly.
- Dispose of trash, scrap, and other debris promptly and place it in proper containers.
- Follow all storage procedures precisely. Be sure not to store flammable items near heat or ignition sources.

Office Facilities

The following guidelines apply particularly to office settings:

- The office should be kept neat and clean to reduce slipping, tripping, and falling hazards.
- Ensure that office lighting is adequate. Replace burned out light bulbs and have additional lighting installed if necessary.
- Ensure that electrical cords and phone cords do not cross walkways or otherwise pose a tripping hazard. If you can't move a cord, have a new outlet installed or secure the cord to the floor with cord covering strips. Don't tape cords down or run them under carpets.
- Immediately report or repair tripping hazards such as defective tiles, boards, or carpets.
- Clean spills and pick up fallen materials immediately. Even a loose pencil could cause a serious falling injury.
- Keep office equipment and facilities in good condition.
- Store items in approved storage spaces. Don's stack boxes too high or too tightly. Label boxes with their contents.

- Don’t leave file cabinet or desk drawers open when not in use.
    - Arrange office furniture in a way that provides unobstructed areas for movement.
    - Don’t put wastebaskets or other objects in walkways.
    - Smoking is prohibited inside buildings and in certain outdoor restricted areas.

Office Safety Program

Policy

All work conducted in Millwright Sites LLC's offices and administrative areas will be conducted using safe work practices. Offices and administration areas will be maintained free of recognized safety and health hazards.

Responsibilities

Human Resources Department {or Safety Department}

The Human Resources Department assists supervisors in correcting hazardous situations and designating safe work practices. The Department also periodically inspects all office facilities to ensure compliance with existing Millwright Sites LLC policies.

Supervisors

Supervisors have the ultimate responsibility for office safety. Supervisors should anticipate work hazards and implement appropriate safeguards. Supervisors should ensure that their employees are properly trained and instructed in safe practices and are aware of all hazards associated with their work.

Employees

Employees must follow all health and safety policies issued by the Human Resources Department, and must follow instructions from their supervisors. Employees should bring potential health hazards to the attention of their supervisor or the Human Resources Department.

Office Hazards and Safe Work Practices

The following sections identify some of the common hazards in Millwright Sites LLC's offices. Supervisors should make sure that employees are aware of any hazards. Employees should follow the safe work practices specified below.

Good Housekeeping

Millwright Sites LLC will ensure that office[s] are kept clean and orderly. Employees should comply with the following guidelines for good housekeeping.

- Report any pest control problems to your supervisor. Never attempt to apply any pest control chemicals yourself.

    - Keep your work area neat and clean to help reduce slipping, tripping, and falling hazards.

- Ensure that office lighting is adequate. Have burned out light bulbs replaced and request additional lighting if necessary.
- Ensure that electrical cords and phone cords do not cross walkways or otherwise pose a tripping hazard. If you can't move a cord, request that a new outlet be installed or secure the cord to the floor with cord covering strips. Don't tape cords down or run them under carpets.
- Immediately report tripping hazards, such as defective tiles, boards, or carpets.
- Clean spills and pick up fallen materials immediately. Even a loose pencil could cause a fall.
- Don't leave file cabinet or desk drawers open when not in use.
- Arrange office furniture in a way that allows unobstructed areas for movement.
- Don't put wastebaskets or other objects in walkways.
- Follow proper storage procedures, as specified below.

Material Storage

Improperly stored materials can lead to hazards, such as objects falling on workers, poor visibility, and fire hazards. Following the good housekeeping procedures above will reduce these hazards.

Employees should use the following storage practices:

- Store items in approved storage spaces.
- Don't stack boxes too high or too tightly. Don't store boxes, paper, and other materials on top of lockers or file cabinets. Boxes should be stacked only if they are of uniform size.
- Label boxes.
- Store heavy items on lower shelves.
- Don't place objects or stacked materials on windowsills.
- Try to store materials inside cabinets, files, and lockers.
- Don't store material in aisles and passageways.
- Don't obstruct fire equipment, extinguishers, exits, and sprinkler heads. Materials should be at least 18 inches from sprinkler heads.

Slips and Falls

One of the most common causes of office falls is tripping over an over desk or file drawer. Other common falling hazards include leaning back in chairs, tripping over electrical cords or wires, using makeshift ladders, slipping on wet floors, tripping over loose carpet, and tripping over objects stored in halls or walkways.

To help prevent falls, employees should:

- Look ahead. Be sure your pathway is clear before you walk.
- Close desk and filing cabinet drawers completely after use.
- Avoid excessive bending, twisting, and leaning back in chairs.
- Don't run electrical cords and wires in walkways.
- Clean up spills immediately.
- Pick up loose objects from the floor.
- Report loose carpeting or damages flooring.
- Make sure walkways are well lit.
- Don't carry anything that obscures your vision.
- Don't run indoors.

Workstation Design

Workstations will be designed using sound ergonomic principles. Workstations should be designed to minimize the need for awkward bending, stretching, or twisting. Employees should adjust their workstations to maximize their comfort and productivity.

Proper seats are critical for employee comfort. Chairs provided to employees should be adjustable and have lower back support.

Computer workstations have special considerations. To prevent discomfort or injury, computer users should use the following guidelines:

- The height and position of the chair should allow the employee to maintain a neutral, balanced posture while at the keyboard.
- While using a keyboard, employees should keep their arms comfortably at their sides; elbows bent approximately 90 degrees, forearms parallel to the floor, and wrist straight.
- The top of the computer monitor screen should be slightly below eye level so the employee does not have to slouch or keep his or her neck bent to read the screen.
- Monitors should be placed about 18-30 inches from the worker.
- Documents that the worker is reading while typing should be at the same distance from the workers as the computer monitor. A variety of document holders and clip devices are available so that workers can view documents directly beside their computer monitor.
- To prevent glare, computer monitors should face away from windows. Monitors should not be directly under overhead lights. Screen contrast and brightness should be easily adjustable.
- Employees can use wrist or palm rests for protection from sharp edges and to help keep wrists in a neutral position. However, workers should not keep their wrists on a wrist or palm rest while they type. Doing so can put pressure on nerves. Wrist and palm rests should be made of a soft but supporting material and should be the same height as the front edge of the keyboard.

Safe Lifting

Lifting objects around the office, even relatively lights loads such as stacks of files or boxes of computer paper can result in injuries to employees' necks, backs, and shoulders. Employees should use the following steps when lifting objects.

- Determine if the load is too heavy to lift and carry alone. If you think that the lift is beyond your capability, get help or contact your supervisor.
- When lifting an object, take a balance stance, with your feet placed shoulder width apart. When lifting something from the floor, squat close to the load.
- Keep your back in its neutral or straight position. Tuck in your chin so your head and neck continue the straight back line.
- Grip the object with your whole hand, instead of only with your fingers. Draw the object close to you, holding your elbows close to your body to keep the load and your body weight centered.
- Lift by straightening your legs. Let your leg muscles, not your back muscles, do the work. Tighten your stomach muscles to help support your back. Maintain your neutral back position as you lift.
- Never twist when lifting. It you must turn with a load, turn your whole body, feet first.
- If you have to lift a load above your shoulders, plan to stop momentarily once you stand up to rest the load on something and change your grip.
- Never carry a load that blocks your vision.
- To set something down, use the same body mechanics for lifting.

Indoor Air Quality

Office workers may be exposed to a variety of indoor air contaminants, including paint fumes, ozone, pesticides, and motor vehicle exhaust. Employees who are suffering from exposure to indoor air contaminants should contact their supervisors.

Millwright Sites LLC prohibits smoking in office and administrative areas.

Millwright Sites LLC will work with the building owners to correct or prevent indoor air quality problems. Other steps that Millwright Sites LLC and the building owners can take to prevent indoor air quality problems include the following:

- Periodically clean heating, ventilation, and air conditioning (HVAC) systems and change filters on all ventilation systems.
- Ensure that the ventilation system is introducing an adequate supply of fresh outside air into the office and is venting point sources of air pollution to the outside.
- Operate office machinery in well-ventilated areas. Place copiers away from work areas.
- Clean and maintain office equipment according to manufacturer's recommendations.
- Pay extra attention to special operations that generate air contaminants, such as painting, pesticide spraying, and heavy cleaning. If possible, employees will be removed from the immediate area and the special operations will be scheduled for off hours.

Lighting

Office workers should have adequate lighting to perform their tasks. Glare should be minimized by proper arrangement of workstations and by choosing proper window and wall treatments. Poor office lighting can cause eyestrain, irritation, fatigue, and other problems. Poor

Lighting can also prevent employees from seeing tripping hazards and could present security hazards in certain areas.

Millwright Sites LLC will ensure that regular maintenance of the lighting system is performed. Where possible, a light-colored matte finish will be used on walls, ceilings, and floors to reduce glare. Office workers should not face windows, unshielded lamps, or other sources of glare. Where possible, indirect lighting and task lights will be used, especially for workspaces that are separated by dividers.

Noise

Millwright Sites LLC will attempt to keep noise in office areas to a minimum. Some sources of office noise include conversations, printers, copiers, telephones, and repair and renovation work.

Employees who are concerned about noise in their work areas should contact their supervisors.

Electrical Safety

Electrical equipment can cause serious shocks and burns if improperly installed, used, or maintained. The following list identifies office electrical hazards and safe work practices.

- *Overloaded outlets.* A sufficient number of outlets will eliminate the need for extension cords. Overloading electrical circuits and extension cords can cause a fire.
- *Non-approved equipment.* Employees often bring poor quality or poorly maintained devices, such as coffee makers, radios, and lamps, into the office. These appliances can develop electrical shorts and should be discarded.
- *Defective or frayed cords.* If the outer jacket of a cord is damaged, it may no longer be water-resistant. Exposed wires can shock workers who contact them. These cords should be replaced.
- *Improper placement of cords.* A cord should not be pulled or dragged over nails, hooks, or other sharp objects that could cut the insulation. Cords should not be placed on radiators, steam pipes, walls, or windows. Cords should also not be placed across walkways or aisles.
- *Pulling out plugs to turn off power.* Equipment should have switches to turn on and off the power, so that workers do not have to pull the plugs to shut off the power. To remove a plug from an outlet, pull out by the plug. Never pull a plug out by the cord.

- *Working on live equipment.* Employees should disconnect electrical machines before cleaning, adjusting, or applying flammable solutions. If a guard must be removed to clean, or repair parts, it should be replaced before testing the equipment and returning the machine to service.

Workplace Violence

Millwright Sites LLC has a zero tolerance for workplace violence. Any employee who engages in violence in the workplace, or threatens violence, will be terminated immediately for cause. Millwright Sites LLC will not tolerate joking about violence. "Violence" includes physically harming another, shoving, pushing, harassing, intimidating, coercing, brandishing weapons, and threatening or talking about engaging in those activities. Millwright Sites LLC prohibits the possession of weapons by any employee while on company property.

Employees should report any incidents of workplace violence to their supervisor. All reports will be investigated and kept confidential.

Employees should take the following additional steps to prevent office theft and other crimes.

- Keep your purse, wallet, keys or other valuable items with you or locked in a drawer or closet.
- Check the identity of any strangers who are in your office. Ask whom they are visiting and if you can help them find that person. If this makes you uncomfortable, inform your supervisor or security about your suspicions.
- Always let somebody know where you will be, including when you are working late, going out to lunch, or to a meeting.
- Mark personal items that you bring into work, such as a coffee pot, radio, or calculator, with your name or initials and an identification number.
- Report any potential security problems, such as broken or flickering lights, dimly lit corridors, doors that don't lock properly, or broken windows.
- Don't get into elevators with people who look out of place or behave in a strange or threatening manner. If you find yourself in an elevator with someone who makes you nervous, get off as soon as possible.
- If you work late, use a buddy system to walk to parking lots or public transportation.
- Choose a well-lighted, well-guarded parking garage. Always lock your car and roll the windows all the way up. If you notice any strangers hanging around the parking lot, notify security or the police. Have your key ready when you approach your car, and lock the door as soon as you get in it.

Emergency Procedures

Although Millwright Sites LLC makes its best effort to reduce office hazards and implement safe work practices, emergencies may still occur. Employees should be familiar with the following emergency procedures. More detailed information is available in the emergency response plan, which is available form the Human Resources Department.

As part of the new employee orientation, employees will receive training in emergency response, including the location of fire alarms, fire extinguishers, and emergency exits.

Employees should know the evacuation routes from the building and where employees will gather.

In case of injury or illness:

- If the injury or illness requires immediate medical assistance, call security and they will arrange for transportation.
- If your injury is treatable with first-aid, notify your supervisor before leaving the workplace.
- Supervisors should complete an Injury/Illness report for all injuries and illnesses.

In case of fire:

- Pull the handle on the nearest fire alarm.
- If you are trained in fire fighting techniques and the fire is small and controllable, you may attempt to fight the fire using a portable fire extinguisher. Do not place yourself or others in danger by attempting to fight the fire if you are not qualified to do so.
- Evacuate the building. Exit the building by following posted evacuation routes. Do not use elevators during an emergency. If you can do so safely, isolate the area by closing windows and doors as you evacuate. Do not stop to collect personal or official items.
- Call 911 to report the fire.
- Do not re-enter the building until you have received permission from your supervisor or the emergency response coordinator.

Employee Rights and Responsibilities

Introduction

It is Millwright Sites LLC's policy that all employees are entitled to a safe workplace. Millwright Sites LLC believes that employees should be informed of their rights and responsibilities under the Federal OSH Act and Texas law. Employees must also be properly informed of their rights and duties under Strata Ferrous Inc.'s safety and health program. Millwright Sites LLC believes that properly informed and trained employees will be safe employees. Millwright Sites LLC encourages employees to be involved in improving workplace safety. Good health and safety practices are the responsibility of each employee.

Employee Safety Rights

Employees have the following rights under the OSH act:

- Reviewing copies of relevant OSHA standards;
- Being informed of workplace hazards, including toxic substances in the workplace;
- Refusing to perform unsafe work;
- Receiving training in general safe work practices and specific training about the hazards unique to the job assignment;
- Examining their medical and exposure records;
- Filing a complaint asking OSHA to conduct an inspection;
- Accompanying the OSHA inspector during an inspection;
- Challenging the abatement period in an OSHA citation;
- Receiving notification from the employer that serious violations identified in an OSHA citation have been abated;
- Reviewing the OSHA 200 log of occupational injuries and illnesses, which is available from the Safety Department;
- Being notified if Strata Ferrous Inc. requests a variance and requesting a hearing concerning the variance application;
- Exercising rights under the OSH Act without fear of reprisal; and
- Requesting NIOSH to perform a health hazard evaluation.

Employees have the following additional rights under Millwright Sites LLC's safety and health program:

- Reviewing a copy of Millwright Sites LLC's safety manual and policies;
- Filing complaints about unsafe conditions with supervisors and the Safety Department;
- Participating in Millwright Sites LLC's Safety Committee;

- Submitting suggestions for improving workplace safety and health to supervisors and the Safety Department.

Safety Responsibilities

All employees must use proper health and safety practices. An employee's specific responsibilities depend on his or her job. The responsibilities of management, supervisors, and non-supervisory employees are summarized below.

Management

The final responsibility for Millwright Sites LLC's safety and health program rest with the President. Managers are responsible for overall safety and health management within their areas.

Managers are responsible for the following:

- Creating a positive atmosphere for promoting workplace safety;
- Ensuring the supervisors and employees under their management have the training and authority to implement appropriate safety and health policies, practices, and programs;
- Ensuring that supervisors and employees under their management have adequate economic and technical support for safety and health programs, practices, and equipment; and
- Ensuring that areas under their management are in compliance with Millwright Sites LLC's safety and health policies, practices, and programs.

Safety Department

The Safety Department is responsible for developing, updating, and implementing Millwright Sites LLC.'s safety and health program. The Safety Department's specific responsibilities include the following:

- Providing consultation and advice on all safety compliance matters;
- Developing safety training programs, conducting training courses, and making available information and other resources on workplace safety and health;
- Developing and implementing Millwright Sites LLC's fire safety and emergency response programs;
- Implementing and coordinating Millwright Sites LLC's hazards communication program;
- Assisting supervisors and employees in implementing the safety and health program, including defining hazardous operations, designating safe practices, and selecting personal protective equipment;
- Ensuring availability of medical examinations and protective equipment necessary to protect employee safety and health;
- Coordinating all internal compliance inspections; and

- Conducting monitoring and testing for air contaminants.

Safety Committee

The Safety Committee promotes workplace safety by encouraging the free flow of ideas between employees, supervisors, and management. The Safety Committee is responsible for the following:

- Encouraging employees involvement in improving workplace safety;
- Holding periodic meetings;
- Making minutes of meetings available to all employees; and
- Making recommendations to the President and Safety Department for improving workplace safety and health.

Supervisors

Supervisors are responsible for protecting the health and safety of employees under their supervision. Supervisors are responsible for the following:

- Ensuring that employees are properly trained in safety policies and procedures;
- Documenting employee training;
- Ensuring that employees are aware of all hazards associated with their work;
- Ensuring that employees are provided with appropriate personal protective clothing and equipment;
- Evaluating each employee's safety performance as part of the annual performance review process;
- Reporting accidents and unsafe conditions to the Safety Department; and
- Identifying and correcting hazards by conducting periodic inspections of workplace hazards and unsafe work practices.

Employees

The ultimate responsibility for safety rests with each employee. Employees who disregard Millwright Sites LLC's safety policies will be subject to disciplinary action. Employees have the following responsibilities:

- Performing their jobs safely;
- Following Millwright Sites LLC's safety and health program;
- Obeying their supervisors' instructions;
- Participating in all required training classes;
- Reporting any potentially dangerous conditions to their supervisors or the Safety Department; and
- Wearing personal protective equipment when instructed.

Refusing Unsafe Work

Employees should not perform a task that they believe is unsafe. Supervisors are prohibited from requiring employees to perform unsafe tasks or tasks that violate an OSHA standard. If you are ever in doubt about the safety of a job assignment, immediately inform your supervisor about the potentially hazardous situation. The supervisor will take steps to correct the hazardous condition and report the problem to the Safety Department, if necessary. Millwright Sites LLC believes that early identification of safety issues and cooperation among employees, supervisors, and management will contribute to a safe workplace.

Employees with safety concerns may not leave the workplace without permission, except in emergencies. If you walk off the job without prior permission, you will be treated as absent without leave and may be subject to disciplinary action. Employees who express concern about the safety of a given task will be given other assignments until the supervisor and Safety Department resolve the issue.

Millwright Sites LLC will not punish employees who exercise their legal rights under the Occupational Safety and Health Act, including the right to refuse to perform unsafe work. However, you should be aware that OSHA's regulations protect you from punishment only in the following limited circumstances:

- You must have thought that you could have been killed or seriously hurt if you performed the task;
- There was not enough time to eliminate the danger by using regular enforcement channels (i.e., reporting the situation to OSHA); and
- You reported the problem to your supervisor, but the dangerous condition was not corrected.

OSHA Inspection Policy

Purpose

Millwright Sites LLC is committed to providing employees with a safe place to work. In accordance with this policy, Millwright Sites LLC, will cooperate with OSHA officials should they want to inspect Millwright Sites LLC's premises.

Individuals Authorized to Speak on Behalf of Millwright Sites LLC

Millwright Sites LLC has designated the individuals listed below as the only persons authorized to communicate with OSHA inspectors on behalf of Millwright Sites LLC:

- _____ ext. _____.
- _____ ext. _____.
- _____ ext. _____.

This policy is intended to ensure that the information provided to OSHA inspectors is current and accurate.

Procedures to Handle the Inspector's Arrival

Receptionists, security guards, and any other employee who greets a visitor claiming to be an OSHA, EPA, or other government inspector should immediately contact the Safety Manager or other designated Millwright Sites LLC representative. Until the Safety Manager or Millwright Sites LLC representative arrives, the inspector should be told to wait in the reception area or in an office away from any work activity.

Receptionists, security guards, and other employees who greet visitors must be trained to contact the Safety Manager or other designated individuals when a visitor arrives claiming to be a government safety or health inspector. The Safety Department will conduct the training and prepare a "contact information" card that will be posted at each security guard or receptionist's desk. The card will give instructions on handling an encounter with an OSHA, EPA, or other government inspector and will include the names and telephone numbers of personnel who should be notified of the inspector's arrival.

The Safety Manager (or other designated Millwright Sites LLC representative) should ask to see the inspector's identification card. If there are any questions regarding the inspector's credentials, the Safety Manager should call the local OSHA office.

Opening Conference

At the opening conference, the safety manager or other designated representative should:

- Determine the reason for the inspection—e.g., whether the inspection is a programmed inspection or the result of an employee complaint or third-party referral. (If the reason for the inspection is an employee or third-party complaint, the safety manager should ask for a copy of the complaint if the inspector does not provide a copy.)
- Discuss and reach an agreement with the inspector on the scope of the inspection and any steps that might be necessary to avoid disrupting Industrial Contractor, Inc.'s business operations. (If possible, have that inspector sign a brief memorandum agreement specifying the inspection scope and any measures necessary to avoid disrupting operations.)
- Briefly review Millwright Sites LLC's safety and health program with the inspector and provide the inspector with a copy of the written program.
- Discuss and reach an agreement with inspector regarding the collection of evidence.

Under OSHA regulations, an OSHA inspector is authorized to take environmental samples related to the health of employees. The Safety Manager should request that the inspector provide split samples as well as a copy of the results of any analysis or tests performed on the samples. The Safety Manager also will request copies of any photographs, video, or recordings taken by the inspector during the inspection.

Walk-Through Inspection

Millwright Sites LLC's Safety Manager and other designated Millwright Sites LLC representative will accompany the inspector during the inspection. One or more union representatives also may accompany the inspector.

During the inspection, Millwright Sites LLC's Safety Manager will require the inspector to comply with Millwright Sites LLC's safety and health rules.

If the OSHA inspector photographs or videos any part of Millwright Sites LLC's facilities, the Safety Manager will ensure that Millwright Sites LLC representatives make contemporaneous photographs or video of the same part of the facilities.

Millwright Sites LLC representatives should avoid making any unnecessary disclosures to OSHA inspectors. As a general rule, Millwright Sites LLC representatives should only volunteer information if it will help avoid a citation.

The Safety Manager will ensure that any hazard or violation encountered during an inspection is corrected immediately or as soon as possible. The Safety Manager should not wait of the inspector to comment to correct an encountered problem. If the OSHA inspector points out an alleged safety or health hazard, the Safety Manager should see that the hazard is corrected, but should avoid admitting to the inspector that the condition constituted a violation.

Employee Communications with OSHA Inspectors

OSHA inspectors have the right to consult or question employees concerning health and safety matters. Employees who are questioned by an OSHA inspector are encouraged to answer questions only if they have direct and personal knowledge about the matter on which the inspector seeks information.

Employees have the right to have the Safety Manager or other designed Millwright Sites LLC representative present during the inspector's questioning. Employees also may have a union representative present during the questioning. They also have the right to decline to answer the inspector's questions. If the inspector's questioning interferes with an employee's ability to work, employees may decline the inspector's request for an interview or ask the inspector to schedule a meeting at more convenient time.

Employees questioned by an OSHA inspector should remember that they do not have the authority to speak on behalf of Millwright Sites LLC unless they are specifically authorized to do so. If the inspector seeks information about Millwright Sites LLC policy or asks other questions about Millwright Sites LLC's business operations that require an answer on behalf of Millwright Sites LLC, employees should politely decline to respond and refer the inspector to one of Millwright Sites LLC's designated representatives.

Trade Secrets

Millwright Sites LLC uses certain proprietary processes, and technologies that give Millwright Sites LLC advantages over its competitors. These processes, formulations, and technologies are trade secrets that must be kept strictly confidential. The unauthorized use or disclosure of trade secrets by employees, contractors, or visitors—including OSHA inspectors—is a crime.

Inspection Consent Agreement

Millwright Sites LLC consents to the inspection requested by [ ] (hereafter referred to as "the inspector") subject to the following terms and conditions:

1. The Inspector hereby represents that Millwright Sites LLC's selection for an inspection by the Occupational Safety and Health Administration (OSHA) is based on evidence or criteria that would be sufficient to support a finding of probable cause for the issuance of a search warrant.
2. The inspection will be limited to [ ] and any other areas for which the Inspector has probable cause to inspect.
3. The inspection will be conducted according to the following sequence and limitations so that it does not interfere with Millwright Sites LLC's business operations:

    - _____
    - _____
    - _____
    - _____

4. OSHA will provide Millwright Sites LLC with copies of any photographs, video, or recordings taken by OSHA representatives during the inspection. Millwright Sites LLC will pay the reasonable costs of making copies.
5. OSHA will provide Millwright Sites LLC with a split sample of any materials on or about Millwright Sites LLC's property that are removed, sampled, or tested in the course of the inspection. Split samples will be taken using procedures necessary to ensure that the samples retained by OSHA and Millwright Sites LLC are substantially equivalent. OSHA will provide Millwright Sites LLC with the written results of any testing, analysis, or examination performed on those materials.
6. The inspector will take all necessary steps to keep Millwright Sites LLC trade secrets confidential. The Inspector agrees not to use, disclose, transfer, or copy trade secrets without Millwright Sites LLC's explicit permission.

Emergency Response Procedures

Introduction

This emergency response plan is designed to protect employees during emergency situations, including fires, chemical spills, natural disasters, and acts of terrorism.

Millwright Sites LLC's Safety Manager will serve as the facility emergency response coordinator and has the primary responsibility for responding to and coordinating emergency situations.

All employees should review and follow these procedures. Supervisors must ensure that their employees are familiar with these procedures.

Reporting Emergencies

When there is a fire or other emergency that poses immediate danger to people or property, call 911 and sound the fire alarm if you can do so safely before evacuating. Follow emergency evacuation procedures. Remain calm, notify others, and respond to the emergency as appropriate. Procedures for responding to specific types of emergencies are described below. Do not attempt to handle emergency duties—e.g., fire fighting—for which you do not have training.

When you call 911 to report an emergency, provide the emergency dispatcher with the following information:

- The street address for your location;
- The building or area name where the emergency response is required;
- The location within building or area;
- A brief description of emergency;
- Your name.

Unless there is a risk to your safety, remain on the line until told by the emergency dispatcher to hang up.

The following numbers should be posted near telephones and in other conspicuous locations:

- Outside emergency services (police, fire department, ambulance service)
- Hospital
- Emergency Response Coordinator
- Safety Department
- Poison Control Center
- National Response Center (1-800-424-8802)
- Regional EPA Office
- OSHA Area Office

Evacuation Procedure

Each building at Millwright Sites LLC has a written emergency evacuation procedure. Floor plans indicating exits and fire extinguishers accompany each of these procedures. The floor plans are kept on file in the Safety Department and posted in each building.

Supervisors are responsible for ensuring that employees know the location of fire extinguishers, fire exits, and alarm systems in the areas in which they work. Training and information is available from the Safety Department.

If a fire emergency exists, employees should immediately activate the building alarm by pulling a pull station. Pull station locations can be found on the floor plans. Employees should evacuate all rooms, closing all doors to confine and reduce the fire and to reduce oxygen. DO NOT LOCK DOORS.

When the building evacuation alarm is sounded, an emergency exits. Walk quickly to the nearest marked exit and alert others to do the same. Smoke is the greatest danger in a fire. If you must pass through a smoke-filled room stay near the floor where the air may be less toxic.

Leave the building using the nearest exit. Once you are outside the building, move to the assembly area for that building. Keep streets, fire lanes, hydrants, and walkways clear for emergency vehicles and crews.

DO NOT RETURN TO AN EVACUATED BUILDING UNLESS TOLD TO DO SO.

NOTE: If you become trapped in a building during a fire and a window is available, place an article of clothing (shirt, coat, etc.) outside the window as a marker for rescue crews.

Accounting for Employees

After evacuation, report immediately to the designated assembly area. Supervisors should determine if anybody is missing and report to the emergency response coordinator.

Evacuation Procedures for Handicapped Employees

Employees should tell their supervisor about disabilities that may require special accommodations when carrying out emergency evacuation plans. The supervisor is responsible for working with the employee and the Safety Department to develop accommodations that will allow the employees to evacuate safely. For instance, co-workers or Safety Department personnel may be assigned to assist employees in wheelchairs.

Emergency Medical Treatment

Emergency medical treatment or first aid may be required during or after an emergency. Employees trained to provide first aid must remember the following:

- Avoid panic;
- Inspire confidence; and
- Do only what is necessary to stabilize employee's medical condition until professional help arrives.

The following sections cover basic procedures for handling common injuries and illnesses.

First Aid Kits

A basic first aid kit should be available in each building, department, and vehicle. First aid kits will include physician-approved supplies suitable for medical emergencies that can reasonably be anticipated at Millwright Sites LLC's facilities. Suitable contents for first aid kits include sterile bandages, tape, scissors, ice packs, plastic gloves, and a mouth-to-mouth breathing tape. Aspirin or other oral medications, ointments or creams, eye drops, antiseptic solutions, or inhalants are not recommended in first aid kits. Inform employees of the location of first aid kits. Inventory supplies and restock items, as necessary.

Initial First Aid

Employees who are first to arrive on the scene of a medical emergency should follow these guidelines:

- **Assess the situation.** Can you safely approach the victim? If not, what can you do to help without threatening your own safety? Determine what is wrong with the victim.
- **Set priorities and call for emergency.** Is the victim conscious? How serious is the victim's condition? Should you call for help immediately or do you need to attend to the victim? Can someone else call emergency medical services so the victim is not left alone? If no one else is available, decide if it is more important to administer first aid immediately or to call emergency medical services and leave the victim unattended. Never leave a victim in a life-threatening situation without trying to first stabilize the victim's condition.

Check the "ABCs" (unconscious victims only).

- **"A"—Airway.** Make sure the victim has a clear airway. Place the victim on his/her back. Place one hand on the victim's forehead and one hand under the chin and tilt the head back. Open the victim's mouth and check for obstructions. If the victim is unconscious and an obstruction is visible, remove it with your fingers. NOTE: If you suspect back or neck injury, do not move the victim or adjust the victim's neck. Simply open the victim's mouth to check for obstructions.

- **"B"—Breathing.** Place you ear above the victim's mouth and look at the chest. Listen for breathing and look for the rise and fall of the chest. If the victim is not breathing, someone trained in mouth-to-mouth breathing should begin resuscitation.
- **"C"—Circulation.** Using two fingers, gently feel for the carotid artery in the neck to check for a pulse. To find the artery, place your fingers on the victim's Adam's apple and then slide them down the side of the neck until you feel the groove between the windpipe and neck muscles. If there is no pulse, someone trained in CPR should begin cardiopulmonary resuscitation.
- **Stay with the victim until emergency medical personnel arrive.**

Bleeding (External)

Most cuts are minor. However, heavy external bleeding can cause death in three to five minutes. In addition to the procedures for initial first aid, follow these steps to control external bleeding:

- Using a sterile dressing, clean cloth or other material; apply pressure directly over the wound. (IMPORTANT: Direct contact with a victim's blood may expose you to various communicable diseases. Always wear latex gloves when assisting a bleeding victim.)
- If possible, elevate the bleeding area. Otherwise, lay the victim flat, and elevate the legs.
- Keep the victim lying down.
- Treat the victim for shock, if necessary.
- Do not release pressure or lift the bandage until you are sure the bleeding has stopped.
- Have someone call emergency medical services, if necessary.
- Do not use a tourniquet unless an arm or leg has been amputated.
- For deep chest wounds, use a heavy dressing to keep air from passing through the wound. For gaping stomach wounds, use a damp dressing; do not touch any protruding organs.

Burns

Thermal and chemical burns require immediate attention. In addition to the procedures for initial first aid, follow these steps for thermal burns:

First and second degree burns cause redness and blistering, but leave the victim's skin intact. For first and second degree burns:

- Immerse the burned area in cold water or apply ice packs to the affected area.
- Cover the burned area with a clean cloth.
- Treat the victim for shock, if necessary.
- Do not apply butter, oil, or cream to a burn.

For serious burns (e.g., large area burns or charred skin):

Remove clothing from the injured area. Cut around clothing that adheres to the skin.

- Treat the victim for shock.
- If the victim is conscious, provide nonalcoholic fluids.
- Call emergency personnel as soon as possible.

Cardio-Pulmonary Resuscitation (CPR)

When a person stops breathing, immediate assistance is necessary. IF the person stops breathing due to choking, follow the first aid instructions for choking victims. If the person stops breathing due to a hazardous atmosphere, move the victim to fresh air immediately.

IMPORTANT: Always wear personal protective equipment when entering hazardous atmospheres. Do not attempt a rescue without adequate protection or proper training.

Someone formally trained in CPR should provide assistance to victims who are not breathing and victims who do not have a pulse, as follows:

- Try to arouse the victim.
- Place the victim on his back. Open the victim's airway by placing one hand on the forehead and one hand under the chin and tilting the head back. Check for any obstructions in the mouth and throat.
- Look, listen, and feel for breathing.
- If the victim is not breathing, pinch the victim's nose closed and use a mouth-to-mouth breathing tube to give two slow, deep breaths.
- Check the carotid pulse and look, listen, and feel for breathing. If pulse is present but the victim does not start breathing, continue rescue breathing as follows:
    - Adult: one breath every five seconds;
    - Child: one breath every four seconds; and
    - Infant: one breath every three seconds.

If a pulse is not present, have someone formally trained in CPR begin mouth-to-mouth breathing and chest compressions. Continue this procedure until the victim starts breathing or emergency personnel arrive.

Chemical Splashes

Chemical splashes on the skin require immediate attention. Follow these steps:

- Go to the emergency shower or sink.
- Remove any contaminated clothing.
- Wash the affected area with water thoroughly for 15 minutes.
- Seek medical attention.

Choking

Choking victims cannot speak, breathe, or cough forcefully. Follow these steps for conscious victims:

- Ask the victim if he is choking. If the victim indicates yes, begin the Heimlich maneuver, as outlined below.
- Get behind the victim and make a fist with one hand. Grasp your fist with the other hand and place your hands slightly above the victim's navel.
- Give quick, upward thrust backwards until the object is expelled.

Important: For pregnant or obese victims, use a chest thrust. Place your fist on the sternum, and thrust backwards repeatedly.

Follow these steps for unconscious choking victims:

- Call emergency personnel.
- Place the victim on his back. Open the victim's airway by placing one hand on the forehead and one hand under the chin tilting the head back. Check for any obstructions in the mouth or throat.
- Attempt mouth-to-mouth rescue breathing.
- If the airway remains blocked, place the heel of your hand slightly below the victim's ribs. Give six to ten abdominal thrusts. For pregnant or obese victims, use a chest thrust. Place your fist on the sternum, and thrust backwards repeatedly.
- Sweep the mouth to remove any dislodged objects and attempt mouth-to-mouth rescue breathing again.
- Continue this procedure until the object is dislodged or the victim starts breathing.

Eye Injury

If hazardous liquids, particles, or gas irritate a person's eye, have the victim flush the eye with water for at least 15 minutes. Use an eye wash station, sink, or water fountain. Seek assistance from a physician, as necessary.

If a foreign object (e.g., glass, pencil lead, etc.) is embedded in the eye, place a plastic cup or gauze over the affected eye. This will keep the eye from moving and inflicting further damage. Seek assistance from a physician immediately.

Insect Bites

Contact emergency personnel or a physician whenever someone suffers multiple stings (or suffers adverse effects from a single sting) from wasps, bees, fire ants, or other stinging insects.

For a single insect sting, remove the stinger by scraping the skin. Do not use tweezers or your fingers to remove a stinger. Pinching the stinger with tweezers or fingers may release more venom.

Workers who are extremely allergic to certain insect bites should carry appropriate medication and inform others of their allergy.

Poisoning

There are many types of poisons. Each requires a specific type of treatment. The remedy for one type of poison may worsen the condition of an employee affected by a different poison. If you suspect a victim has been poisoned through ingestion, inhalation, or skin exposure, try to determine what the poisoning agent is. Contact emergency personnel or the Poison Control Center for specific first aid instructions.

Seizures

Do not try to restrain seizure victims. Move any furniture of objects that could harm the victim and wait for the seizure to end. Contact emergency medical services if this is the victim's first seizure or if the seizure is exceedingly violent or lasts a long time. Do not place anything in a seizure victim's mouth.

Shock

Shock commonly accompanies injuries or severe emotional distress. Symptoms of shock include the following:

- Cold, clammy skin;
- pale skin tone;
- shallow breathing; and
- chills.

Follow these steps to assist shock victims:

- Call emergency personnel.
- Keep the victim lying down.
- Maintain an open airway. If the victim vomits, turn the head sideways and the chin downward.
- Elevate the victim's legs.
- Keep the victim warm.
- Reassure the victim.

Snake Bites

Most snakebites are not fatal. If a snakebite occurs, follow these steps:

- Have the victim move as little as possible.
- Apply a constricting bandage (not a tourniquet) between the wound and the heart.
- If possible, call emergency personnel. In rural locations, transport the victim to the nearest hospital immediately. If necessary and possible, carry the victim to transportation. Do not let the victim walk.
- If you cannot obtain medical attention:
    - Do not make any incisions or suck out the poison.
    - Do not cool the bitten area.
    - Every fifteen minutes, loosen the constricting bandage for a few seconds and then reapply it.

Site Security

The emergency response coordinator is responsible for security arrangements to prevent workers or members of the public from entering areas where emergency conditions exist. Only authorized rescue and emergency response personnel should be allowed into the area. The emergency response coordinator may decide to cordon off the area with ropes and signs. If necessary, the emergency response coordinator should notify the police or hire private security personnel to secure the area after the emergency.

Specific Emergencies

The following sections describe the procedures employees should follow during specific emergencies that may arise at their facilities.

Chemical Spills

The guidelines below should be followed in the event of a chemical incident in which there is potential for a significant release of hazardous materials.

Spill classifications. Spill response procedures vary depending on whether a spill is small, medium, or large. The following are descriptions of each type of spill:

- **Small spills.** This category includes spills where the major dimension of the spill is less than 18 inches in diameter.
- **Medium spills.** These are spills where the major dimension exceeds 18 inches, but is less than 6 feet.
- **Large spills.** This category includes:

- Any spill involving a flammable liquid where the major dimension exceeds 6 feet in diameter; and
- Any "running" spill, where the source of the spill has not been contained or the flow has not been stopped.

Evacuation. Persons in the immediate vicinity of a spill should immediately evacuate the premises. If the spill is "medium" or "large," or if the spill seems hazardous, immediately notify emergency response personnel.

General spill control techniques. Once a spill has occurred, the employees at the spill site must decide whether the spill is small enough to handle without outside assistance. Only employees with training in spill response should attempt to contain or clean up a spill.

Spill control equipment should be available wherever significant quantities of hazardous materials are received or stored. MSDS sheets, respiratory protection, absorbents, over-pack containers, container patch kits, spill dams, shovels, floor dry, acid/base neutralizers and "caution-keep out" signs are common spill response items that should be stocked in such areas. Consult the Safety Department for more information on what to stock for your area.

Response and cleanup procedures for small spills. Small spills generally can be handled by internal personnel and usually do not require an emergency response by fire department HAZMAT personnel. Spills of less than 18 inches normally are cleaned up by the spiller. First, quickly contain the spill by stopping or securing the spill source. This could be as simple as up righting a container and using absorbent pads to soak up spilled material. Wear gloves and protective clothing, if necessary. Put spill material and absorbents in secure containers. Do not wash the spill area until consulting with the Safety Department and reading the MSDS sheet for spill and waste disposal procedures. Sometimes the area of the spill should not be washed with water. The spilled material and the absorbent sometimes might be classified as hazardous waste and must be disposed of in compliance with state and federal environmental regulations.

Response and cleanup procedures for medium spills. Police and fire department HAZMAT teams' response normally is required for medium spills. However, common sense also should be used when determining if outside help is necessary. Medium spills require the following actions:

- First, try to contain the spill at its source. This might involve quickly up righting a container or putting a lid on a container. Do not use absorbents unless they are immediately available. Once you have made a quick attempt to contain the spill, leave the area and alert emergency response personnel by calling 911. Close, but do not lock, the doors as you leave. Give emergency response personnel accurate information as to the location, chemical, and estimated amount of the spill.
- Second, evaluate the area outside of the spill. Engines and electrical equipment near the spill area must be turned off. This eliminates various sources of ignition in the area. Advise police or emergency responders on how to turn off engines or electrical sources. Do not go back into the spill area once you have left. Help emergency responders by

- trying to determine how to shut off heating, air conditioning equipment or air circulating equipment, if necessary.

- If emergency responders evacuate the spill area, follow their instructions in leaving the area.
- After emergency responders have contained the spill, be prepared to assist them with any other information that may be necessary, such as MSDS sheets and questions about the facility.
- Emergency responders or trained personnel with proper personal protective equipment should clean up the spill residue. Do not re-enter the area until the responder in charge give the all clear. Be prepared to assist these persons from outside the spill area with MSDS sheets, absorbents, containers, etc.
- Reports must be filed with proper authorities. It is the responsibility of the spiller to inform both his/her supervisor and the emergency responders as to what caused the spill. The supervisor of the area in which the spill occurred is responsible for completing an incident reporting form and filing it with the Safety Department. The Safety Department and the responders will then finish notifying authorities, if necessary.

Response and cleanup procedures for large spills. The response for large spills is much the same as for medium spills, except that the exposure danger is greater. The response for large spills is as follows:

- First, since spill control or containment by the spiller is not likely, the spiller should immediately leave the area and notify police (911). Again, give the operator the spill location, chemical spilled, and approximate amount.
- Second, form a safe area; attempt to get MSDS information for the spilled chemical for the emergency responders to use. Also, be prepared to advise responders as to any ignition sources, engines, electrical power, or air conditioning/ventilation systems that may need to be shut off. Advise responders of any absorbents, containers, or spill control equipment that may be available. This may need to be done from a remote area, as an evacuation that would place the spiller far from the scene may be needed. Use radio or phone to assist from a distance, if necessary.
- Only emergency response personnel, in accordance with their own established procedures, should handle spills greater than 6 feet in any dimension or that are continuous. Remember, once the emergency responders or HAZMAT team is on the job cleaning up spills or putting out fires, the area is under their control and no one may re-enter the area until the responder in charge gives the all clear.
- Finally, the spiller will need to provide information for reports to supervisors and responders, just as in medium spills.

Fires

If you see a fire or smoke, take the following steps:

- Activate the alarm to begin evacuating the building.

- If you are not in immediate danger, call 911 to report the fire. Provide the operator with the building or area name, the approximate location of the fire, the size and type of fire, and your name.
- If you are formally trained in fire fighting techniques and are not in imminent danger, you may attempt to fight a fire that is small and controllable. Do not place yourself or others in unnecessary danger.
- Exit the building by following posted evacuation routes. Proceed to the designated assembly location. Do not use elevators in an emergency.

Employees must receive permission from their supervisor or the emergency response coordinator before re-entering the building.

Acts of Terrorism

Bomb Threats

If you receive a bomb threat over the telephone, remain calm and act courteous. If possible, notify another person to listen on another extension. Take notes on the caller's threat, tone, voice characteristics, and background noise.

If the caller seems willing to talk, try to find out as much as possible about the caller and the threat. Ask questions, such as:

- When will the bomb go off? How much time remains?
- Where is the bomb located?
- What kind of bomb is it?
- How do you know about this bomb?
- What is your name?
- Do you known that there are people in the building who could be hurt or killed?

Take the following steps after the caller hangs up:

- Hang up the phone. Immediately, before the next call comes in, dial *57. Listen and write down what the recorded message says.
- Hang up the phone, pick up the phone and dial *69. Listen and write down what the recorded message says.
- Call the police department by dialing 911 and report the following information:
    - Your name;
    - The location and telephone number from which you are calling:
    - A description of the bomb threat;
    - The exact time you received the call;
    - The location of the device, if known;
    - The time the device is set to detonate, if known;
    - The type of device if known;
    - The information you received after dialing *57 and *69; and
    - Any other information from your notes.

- Inform your supervisor and building security.

In case this is a terrorist threat or act other then a bomb threat, policies have not been formally adopted on any governmental level for workplace safety and health.

Guidelines in this handbook under the titles of; bomb threats, chemical spills, fires, and etc. should be used as the case may warrant.

Weather Emergencies

Millwright Sites LLC's facility is subject to the following weather emergencies:

- Tornados and high winds;
- Lightning; and
- Winter weather.

During a tornado warning or high winds, employees should move to places of maximum protection, such as the interiors of buildings and the lowest floor possible. Keep away from windows. Assist disabled workers in moving to these locations. Await specific instructions from your supervisor or the emergency response coordinator. A tornado watch is issued when weather conditions are ideal for a tornado to form. A tornado warning is issued when a tornado is identified in the immediate vicinity.

During an electrical storm, stay away from windows and open doors. You may be instructed to shut down your computer. Stay clear of metal objects, such as pipes and electrical appliances. Do not go outside. If you find yourself caught in a storm away from a protected building, stay in a closed automobile if possible. Stay away from tree lines, flagpoles, towers, and metal fences. If caught in the open, stay low.

Except during extremely hazardous weather conditions, Millwright Sites LLC will remain open for business and employees will be expected to report to work. During severe winter weather, employees should call in to the office or Floyd's mobile phone for instructions. The office phone number is **830 560-2109** and Floyd's mobile number is **210 669-6552.** As always, take your personal safety into account first and drive slowly in winter weather.

Cold weather emergencies. When the body is unable to warm itself, serious cold-related injuries, such as frostbite and hypothermia, may occur. These injuries can slowly overcome a person who has been chilled by low temperatures, brisk winds, or wet clothing.

When a person suffers from frostbite, there is freezing in deep layers of the skin and tissue. Signs of frostbite include pale, waxy-white skin color, and hard and numb skin. It usually affects the fingers, hands, toes, feet, ears, and nose. In case of frostbite, take the following steps:

- Move the person to a warm, dry area. Don't leave the person alone.
- Remove any wet or tight clothing that may cut off blood flow to the affected area.

- Do not rub the affected area.
- Gently place the affected area in a warm (105°) water bath and monitor the water temperature to slowly warm the tissue. Don't pour warm water on the affected area. Warming takes about 25-40 minutes.
- After the affected area ha been warmed, it may become puffy and blister. The affected area may have a burning feeling or numbness. When normal feeling, movement, and skin color have returned, the affected area should be dried and wrapped to keep it warm. If there is a chance that the affected area may get cold again, do not warm the skin.
- Seek medical attention as soon as possible.

When a person suffers from hypothermia, body temperatures drops to or below 95°F. Signs include fatigue or drowsiness, uncontrolled shivering, cool bluish skin, slurred speech, clumsy movements, and irritable or irrational behavior. In case of hypothermia, take the following steps:

- Call for emergency help.
- Move the person to a warm, dry area. Don't leave the person alone. Remove any wet clothing and replace with warm, dry clothing or wrap the person in blankets.
- Have the person drink warm, sweet drinks (sugar water or sports-type drinks) if they are alert. Avoid drinks with caffeine or alcohol.
- Have the person move their arms and legs to create muscle heat. If they are unable to do this, place warm bottles or hot packs in the armpits, groin, neck, and head areas. Do not rub the person's body or place them in a warm bath. This may stop the heart.

Millwright Sites LLC

Employee Accident Report

Complete all Blanks

Date and Time of Injury:

Name of Injured person: SS#

Address: Home phone:

Date of birth: Marital Status # of Dependants Sex: M/F

Job Title:

Company or place the injury occurred:

Supervisor:

Describe the accident in detail (how, what, where, why):

Type of injury (cut, bruise, sprain, etc.)

Body location (hand, head, back, etc.)

Was special protective equipment provided or required? (goggles, special shoes, helmets, etc.)
Yes No

If so what equipment?

Was such equipment being worn at the time of the accident? Yes No
If not, why not?

Are there any safety issues that contributed to the accident? If so, please discuss:

Were there any witnesses to the accident? Yes No
If yes, please list names:

Witness: Witness:

I, employee, the undersigned, certify that the above is a true and correct statement of fact and that I make such statements of my own free will. I understand that any payments to me or anyone else for expenses in connection with my accident and resulting injury is not an admission of liability on the part of Millwright Sites LLC I authorize full access to copies of medical records, radiology reports, drug/alcohol screenings, and documents of any kink relating to my past or present injury/illness to Millwright Sites LLC I hereby agree to release this information and hold all such medical providers harmless from the release of this information as set forth in this authorization.

Employee Signature Date of Report Translated by (if necessary)

Supervisor's Report of Injury

Date/Time of injury:
Date of this report:

Name of injured employee: Social Security #:

Company or location where working: Hire date:

Name of medical facility where taken: Phone #:

Employee occupation:

Has employee lost time due to injury? Yes No
If yes, when did lost time begin?

Please state how injury occurred (what employee was doing, what caused the injury/accident to occur, type of injury, and body part affected)

Cause of accident

Were any other companies responsible for the accident or injuries? If so, list the name of the company and their employee:
Company:
Employee name:

Were any safety devices or safety equipment provided? Yes/No
Where they being used?

Were any safety devices of safety equipment disconnected or not used that would have contributed to the accident? Yes/No
If yes, please explain:

What could have prevented the accident?

Do you know, or have you heard, any information regarding the injury/accident that the employer should know? If so, please list

Supervisor/Foreman filling out the report:

Signature:
Date:

Report due within 24 hours of accident/injury at the main office at 2431 Friesenhahn Road, Seguin, Guadalupe County, Texas 78155. Or hand deliver to 2431 Friesenhahn Road, Guadalupe County, Seguin, Texas, 78155. This report can also be emailed to Susan Hurst at office@millwrightsites.com For additional assistance call Susan Hurst, Millwright Sites LLC at (830) 560-2109.

Witness Statement

Date of this report
Date/time of injury

Name of injured worker: Social Security #

Address of jobsite

Name of witness:
Address
Employed by:
Occupation:

If not an employee, give reason for presence at location:

Are you related to the injured worker? Yes/No
If so, how?

How long have you known the employee?

Did you actually see the accident? Yes/No

If not, how did you hear about it?

Explain in detail what you know about the accident:

Are you aware of any other illness or accidents, (including traffic accidents), that this employee had?

Please give the names of any other persons who might know about the accident:

Why did this accident happen?

What could have prevented this accident?

Were any safety devices or equipment disconnected or not in use that contributed to the accident? Yes/No

If so please explain in detail:

If safety devices or equipment was disconnected, who was responsible for disconnecting or not using that equipment?

Is there any other information that you know that would help provide a fair evaluation of the accident, its causes, and the prevention of similar in the future?

Signature

Please return to Millwright Sites LLC at 2431 Friesenhahn Road, Seguin, Guadalupe County, Texas 78155 or email to office@millwrightsites.com This report can also be hand delivered to 2431 Freisenhahn Road, Seguin, Guadalupe County, Texas 78155

Medical Services and First Aid Checklist

□ Yes □ No Is there a hospital, clinic, or infirmary for emergency medical care within a few minutes of the workplace?

□ Yes □ No Can medical personnel from those facilities respond to medical emergencies within 15 minutes (or three to four minutes in the case of hazardous operations)?

□ Yes □ No If medical and first-aid facilities are not nearby, has at least one employee on each shift been certified to provide first aid?

Do employees who are expected to respond to medical emergencies:

□ Yes □ No receive first-aid training?

□ Yes □ No have hepatitis B vaccination available to them?

□ Yes □ No receive training on how to protect themselves from blood borne pathogens?

□ Yes □ No have personal protective equipment (and training in its use) to protect against exposures to blood borne diseases?

□ Yes □ No Do you provide immediate post-exposure medical evaluation and follow-up to employees who have been exposed to blood borne pathogens?

□ Yes □ No Are medical personnel readily available for consultation about employees' health? (This can include having occupational medical specialists at a nearby physician group practice available for consultation.)

□ Yes □ No Are emergency phone number posted?

□ Yes □ No Are first aid kits easily accessible to each work area, with supplies periodically inspected and replenished?

□ Yes □ No Do first aid kits contain physician approved medical supplies?

□ Yes □ No Are eyewash and quick drenching facilities available at worksites where corrosive liquids or materials are handled?

Weather Emergencies

Millwright Sites LLC will operate in most types of weather conditions. However, Millwright Sites LLC's Chief Executive Officer, Facilities Manager, or Safety Manager may order operations to shutdown if weather conditions make it impossible to operate safely.

Employees can obtain information about weather related shutdowns and schedule changes by calling (210) 669-6552 or (830) 560-2109. If severe weather develops after employees have arrived at work, Millwright Sites LLC's Chief Executive Officer, Facilities Manager, or Safety Manager may order an early closing if necessary to preserve safety.

Employees are expected to report to work unless an emergency closing has been ordered. However, employees are encouraged to use common sense in deciding whether they can commute to work safely.

If weather related shutdown has not been ordered, employees who cannot report to work because of weather do so without pay. Employees must notify their supervisor within the first hour of their scheduled workday if weather conditions prevent them from reporting to work on time.

Millwright Sites LLC's Facilities Manager is responsible for maintaining supplies and equipment to remove snow and ice from sidewalks and parking lots. During rainy, snowy, or icy conditions, "Caution, Wet Floor" signs will be posted, and non-skid mats will be placed, in all entranceways.

Fire Prevention Plan and Checklists

Policy

Millwright Sites LLC is committed to minimizing the threat of fire to employees, visitors, and property. Millwright Sites LLC complies with all applicable laws, regulations, codes, and good practices pertaining to fire prevention. Millwright Sites LLC's separate emergency plan spells out the procedures for responding to fires.

Responsible Parties

Fire safety is everyone's responsibility. All employees should know how to prevent and respond to fires. Management sets Millwright Sites LLC's fire prevention and protection policies in conjunction with the Safety Department. The Safety Department is responsible for carrying out those policies.

The Fire Protection Engineer with the Safety Department is responsible for the overall fire protection program. The Fire Protection Engineer's duties include: 1) ensuring that fire control equipment and systems are properly maintained; 20 controlling fuel source hazards; and 3) conducting fire risk surveys and making recommendations.

Supervisors must notify the Safety Department when changes in operation increase the risk of fire. Supervisors must also ensure that employees receive appropriate fire safety training.

Employees must: 1) complete all required training before working without supervision; 2) conduct operations safety to limit the risk of fire; 3) report potential fire hazards to their supervisors; and 4) follow fire emergency procedures.

Training

All employees should receive basic fire prevention training, which includes:

- Good housekeeping practices;
- Proper response and notification in the event of a fire;
- Instruction on the use of portable fire extinguishers; and
- Recognition of potential fire hazards.

Employees will also be trained about the fire hazards associated with the specific materials and processes to which they are exposed. Employees will receive this training at their initial assignment.

Good Housekeeping

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

- Minimize the storage of combustible materials;
- Make sure that doors, hallways, stairs, and other means of egress are kept free of obstructions;
- Dispose combustible waste in covered, airtight metal containers;
- Use and store flammable materials in well-ventilated areas away from ignition sources,
- Use only nonflammable cleaning products;
- Keep incompatible—i.e., chemically reactive substances – away from each other;
- Perform "hot work"—e.g., working with an open flame or other ignition sources—in well-ventilated areas;
- Keep equipment in good working order—e.g., inspecting electrical wiring and appliances regularly and keeping motors and machine tools free of dust and grease;
- Ensure that heating units are safeguarded;
- Report and repair all gas leaks immediately;
- Repair and clean up flammable liquid leaks immediately;
- Keep work areas free of dust, lint, sawdust, scraps, and similar material;
- Do not rely on extension cords if wiring improvements are needed and take care not to overload circuits with multiple pieces of equipment; and
- Turn off electrical equipment when not in use.

Maintenance

Millwright Sites LLC will ensure that equipment is maintained according to manufacturer's specifications. Millwright Sites LLC will also comply with requirements in NFPA codes for specific equipment. Individuals performing maintenance work must be properly trained.

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

- Equipment installed to detect fuel leaks, control heating, and control pressurized systems;
- Portable fire extinguishers, automatic sprinkler systems, and fixed extinguishing systems;
- Detections systems for smoke, heat, or flame;
- Fire alarm systems; and
- Emergency backup systems and the equipment they support.

Specific Fire Hazards

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

Electrical Fire Hazards

Electrical system failures and the misuse of electrical equipment are 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 should:

- Make sure that worn wire is replaced;
- Use only appropriately rated fuses;
- Never use extension cords as a substitute for wiring improvements;
- Use only approved extension cords—i.e., those with the Underwriters Laboratory (UL) or Factory Mutual (FM) label; and
- Check electrical equipment to ensure that it is either properly grounded or double insulated.

Portable Heaters

All portable heaters must be approved by the Safety Department. Portable electric heaters should have tip-over protection that automatically shuts off the unit when it is tipped over. There should be adequate clearance between the heater and combustible furnishings or other material.

Office Fire Hazards

Fire risks are not limited to Millwright Sites LLC's industrial facilities. Fires in offices have become more likely because of the increased use of electrical equipment, such as computers and fax machines. Employees should avoid overloading circuits with office equipment and turn off nonessential electrical equipment at the end of the workday. Storage areas should be kept clear of rubbish and extension cords should not be placed under carpets. Trash and paper set aside for recycling should not be allowed to accumulate.

Cutting, Welding, and Open Flame Work

Millwright Sites LLC will ensure the following:

- Cutting and welding are done by authorized personnel in designated cutting and welding areas whenever possible;
- Adequate ventilation is provided;
- Torches, regulators, pressure-reducing valves, manifolds are UL listed or FM approved;
- Oxygen fuel gas systems are equipped with listed and/or approved backflow valves and pressure relief devices;
- Cutters, welders, and helpers wear eye protection and protective clothing as appropriate;
- Cutting and welding is prohibited in sprinkler areas while sprinkler protection is out of service;

- Cutting and welding is prohibited in explosive atmospheres of gases, vapors, or dusts where explosive atmospheres could develop from residues or accumulations in confined spaces;
- Cutting or welding is prohibited on metal walls, ceilings, or roofs built of combustible sandwich type panel construction or having combustible covering;
- 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; and
- When cutting or welding is done on small tanks, piping, or containers that cannot be entered, they are cleaned, purged, and tested before starting the work.

Flammable and Combustible Materials

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

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

To handle Class A combustibles safely;

- Dispose of waste daily;
- Keep trash in metal lined receptacles with tight fitting covers (metal wastebaskets that are emptied every day do not need to be covered);
- Keep work areas clean and free of fuel paths that could allow a fire to spread;
- Keep combustibles away from accidental ignition sources, such as hot plates, soldering irons, or other heat or spark producing devices;
- Store paper stock in metal cabinets;
- Store rags in metal bins with self closing lids;
- Do not order excessive amounts of combustibles; and
- 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.

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

Do not use water 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 not longer being manufactured. Existing systems using halon can be kept in place.

To handle Class B combustibles safely;

- Use only approved pumps, taking suction from the top, to dispense liquids from tanks drums, barrels, or similar container (or use approved self-closing valves or faucets);
- Class 1 flammable liquids must not be dispensed 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.
- 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;
- 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);
- Do not use, handle, or store Class B combustibles near exits, stairs, or any other areas normally used as exits;
- Do not weld, cut, grind, or use unsafe electrical appliances or equipment near Class B combustibles;
- Do not generate heat, allow an open flame, or smoke near Class B combustibles;
- Know the location of and how to use the nearest portable fire extinguisher rated for Class B fire.

Smoking

Smoking is prohibited in all Millwright Sites LLC buildings. Certain outdoor areas may also be designated as not smoking areas. The areas in which smoking is prohibited outdoors are identified by NO SMOKING signs.

Fire Prevention Checklists

General Fire Prevention Checklist

Use this checklist to ensure fire prevention measures conform to the general fire prevention requirements found in OSHA standards.

□ Yes □ No Is the local fire department acquainted with your facilities, 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 flushed at least once a year and on a routine preventive maintenance schedule?

□ 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 and air 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?

Exits Checklist

Use this checklist to evaluate Millwright Sites LLC compliance with OSHA's standard on emergency egress.

□ Yes □ No Are all exits 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 other appropriate marking?

□ Yes □ No Are exit signs provided with the word "EXIT" in letters at least five inches high and with lettering at least one inch wide?

□ Yes □ No Are exit doors side-hinged?

□ Yes □ No Are at least two means of egress 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 and at least two-hour fire-resistant walls in buildings over four stories high?

□ Yes □ No Is the slope 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 by 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 other area where vehicles may me 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?

Flammable and Combustible Material Checklist

Use this checklist to evaluate Millwright Sites LLC's compliance with OSHA's standards on 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 on drums and combustible liquid piping vapor and liquid tight?

□ 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 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 used 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 as a result of filling, emptying, or temperature changes?

Evacuation Procedures

Be prepared! Every employee should be familiar with the evacuation plans posted in each building. If a fire or explosion occurs in your presence, observe the following procedures:

1. Go to the nearest alarm pull station to activate the building evacuation alarm.
2. Evacuate the building and call 911 to report the fire. Follow these steps when evacuating:

    - Keep calm. Do not use the elevators. Do not delay evacuating.
    - If there is time, close—but do not lock—windows and doors that are not being used for evacuation. Proceed at a fast pace—but do not run—to the nearest exit.
    - When exiting, check doors to see if they are hot before opening them. If a door is hot, do not open it. If the door is not hot, open it slowly and be prepared to close it a once if the hallway is full of smoke or fire. If there is no smoke or fire in the hallway, move quickly to the exit stairways and leave they building.
    - If there is smoke in the hallway, determine if you can crawl on your hands and knees to the exit. Holding a wet cloth in front of your mouth and nose may

- provide some comfort, but do not rely on a wet cloth for protection from thick or toxic smoke.
- If you are trapped by flames or smoke, retreat into an exterior room, close the door, and place a wet towel across the bottom of the door. If possible, use a telephone to report your location. If possible, open the windows slightly and hang brightly colored material outside so the fire fighters will know you are in the room. Stay calm; do not smash the window, and DO NOT JUMP.

3. Once you have evacuated the building, report to the designated gathering area. If you cannot account for everyone, inform the fire department. Do not re-enter building until the Safety Manager gives the "all-clear" signal.

Fire Emergency Plan

Purpose

Millwright Sites LLC is committed to providing a safe environment for employees, building occupants, visitors, and emergency response personnel. Fire safety is everyone's responsibility. To prevent loss of life, injury, and property damage, all employees must be familiar with Millwright Sites LLC's first emergency procedures and emergency response plan.

Fire Prevention

The greatest protection against property loss and injuries from fire is prevention. Employees should follow these guidelines to promote fire safety:

- Minimize the storage of combustible materials.
- Store waste materials in suitable containers.
- Use flammable materials in well-ventilated areas. Use and store flammables away from ignition sources, such as cigarettes.
- Keep equipment in good working order. Have electrical wiring and appliances inspected regularly.
- Ensure that heating units are properly safeguarded.
- Test enclosed or confined spaces for flammable atmospheres.
- Use open flames carefully. Do not use open flames where flammable atmospheres may be present.
- Report and repair all gas leaks immediately. Never hunt for gas leaks using an open flame. Use approved gas indicators.

Fire prevention in office environments. Fire prevention is not limited to manufacturing areas. Employees in offices should observe these guidelines.

- Avoid overloading circuits with computers, fax machines, and other office equipment. If electrical outlets are in short supply or if wiring is otherwise inadequate, have a qualified electrician make the necessary improvements. Never use extension cords or adapters as a substitute for wiring improvements.
- Don't bring in space heaters from home unless such use is approved. Don't place anything on space heaters and don't put space heaters near anything that could burn. Turn space heaters off at the end of the workday.
- Don't put extension cords under carpets. Analyze whether wiring improvements could eliminate the need for the extension cord.
- Turn off nonessential electrical equipment at the end of the workday.
- Keep storage areas clear of rubbish.
- Smoke only in designated areas.

Fire Response

If you see a fire or smoke, take the following steps:

1. Pull the handle on the nearest alarm pull station to activate the fire alarm.
2. If you are trained in fire fighting techniques and the fire is small and controllable, you may attempt to fight the fire with a portable fire extinguisher. Do not place yourself or others in danger by attempting to fight the fire if you are not qualified to do so.
3. Evacuate the building. Exit the building by following posted evacuation routes. Do not use elevators during an emergency.

- The street address and building name.
- The approximate location of the fire—e.g., 4th floor, north wing.
- The size and type of fire. Tell the emergency operator what is burning, whether there is a risk of an explosion, and whether hazardous or toxic materials are involved.
- Your name. Stay on the line until the emergency operator tells you to hang up the phone.

4. Do not re-enter the building until you have received permission from your supervisor or the emergency response coordinator.

Emergency Access and Egress

Access and egress are critical during emergencies. During a fire, timing and quick response are essential to save lives and property. Unobstructed emergency access and egress routes ensure that fire fighting and rescue crews are not delayed in doing their jobs and that building occupants can exit to safety.

Maintaining "emergency access" means that facilities and equipment remain available and unobstructed at all times to ensure effective fire detection, evacuation, suppression, and response.

Maintaining "emergency egress" means that individuals have continuous and unobstructed routes out of the facilities in which they work. Each location within a building must have a clear means of egress to the outside.

Corridors, Stairways, and Exits

Exit corridors and stairways are the primary means of egress during any emergency. An exit corridor is a pedestrian pathway that allows direct access to the outside of a building. All corridors, stairways, and exits must provide clearance of at least 44 inches in width.

Observe these guidelines to promote safe evacuation in corridors, stairways, and exits:

- Keep all corridor, stairways, and exits clutter-free at all times.
- Do not place hazardous materials or equipment in areas that are used for evacuation.
- Do not use corridors or stairways for storage or office operations.

Fire Lanes

Fire lanes must be clearly marked and used by emergency personnel only. Never park in fire lanes or within 15 feet of fire hydrants or other fire equipment.

Fire Doors

Fire doors normally are located in stairwells, corridors, and other areas required by the fire code. A fire door serves as a barrier to limit the spread of fire and to restrict the movement of smoke. Never tamper with fire doors or block them with equipment, door stops, potted plants, furniture, or other items.

Doors to offices can act as smoke barriers regardless of their fire rating. Keep these doors closed when offices are not occupied.

Fire doors generally remain closed at all times. If it is necessary to keep a fire door open, a special closure system must be installed. The closure system must be connected to the building's fire alarm system so that the fire door will close automatically if the alarm system is activated.

IMPORTANT: Never alter a fire door or assembly in any way. Simple alterations such as changing a lock or installing a window can reduce the fire rating of the door.

Fire Detection and Notification

Millwright Sites LLC and/or our clients use several types of fire detection and notification systems, including heat detectors, smoke detectors, pull stations, and horns and lights. Each of these systems is explained below.

The fire detection systems are linked to an emergency reporting system. Once a building alarm system is activated, the reporting system alerts the fire department and emergency response crews. However, employees should never hesitate to report a fire or emergency situation by calling 911. If you are at a client's location, you are responsible for making yourself aware of the type of fire detection and notification system is being used and the placement of such systems.

Heat and Smoke Detectors

Heat detectors respond to the heat in smoke and fire gases. Heat detectors normally are located in mechanical rooms, boiler rooms, and storage areas.

Smoke detectors respond to the solid and liquid aerosols produced by a fire. Since smoke detectors cannot distinguish between smoke particles and other particles—steam, for example—building occupants must be aware of detector locations and take them into account when working around them. Smoke detectors normally are found in stairways, exit corridors, office areas, and assembly areas.

Employees should take note of any heat or smoke detectors located in their work areas and take care not to damage the devices or the trigger them accidentally.

Employees who will be performing work that produces steam, dust, or an environment that could damage or activate a detector, should protect the detector with some type of covering—e.g., a plastic bag—and should report the detector's temporary deactivation to the Safety Department. Remember to remove the protective covering as soon as the work is completed. If you will be performing steam- or dust- producing work near a smoke detector on an on-going basis, consult with the Safety Department about making appropriate modifications to your work area—e.g., installing an exhaust fan.

Alarm Systems: Pull Stations

Fire alarm pull stations allow employees to manually activate a building's alarms. When activated, a pull station sets off the fire alarm system and notifies emergency response personnel that an emergency exits. Pull stations are located near exit stairways and/or building exits.

Alarm Systems: Horns and Lights

Emergency horns, bells, and lights may be located throughout client's facilities. These warning devices typically are found near emergency pull stations.

Do not block emergency horns or lights. Report damaged or defective horns, bells, and lights to your supervisor or the client's Safety Department.

Fire Suppression

Millwright Sites LLC uses various types of fire suppression equipment including portable fire extinguishers, sprinklers, carbon dioxide systems, and fire hose/standpipe systems. Each type of fire suppression system is discussed below.

Fire Extinguishers

There are numerous types of fire extinguishers. Most extinguishers contain water, carbon dioxide, or dry chemicals. All fire extinguishers are clearly marked to indicate the fire classes for which they are designed. Fires are classified according to the following categories:

- **Class A.** These are fires involving ordinary combustibles such as wood, textiles, paper, rubber, cloth, and trash. The extinguishing agent for a Class A fire must be cool. Water and multi-purpose dry chemical fire extinguishers can be used for these types of fires.
- **Class B.** Class B fires involved flammable or combustible liquids or gases such as solvents, gasoline, paint, lacquer, or oil. The extinguishing agent for a Class B fire must
- remove oxygen or stop the chemical reaction. Carbon dioxide and multi-purpose dry chemical extinguishers are ideal for use on these types of fires.
- **Class C.** These are fires involving energized electrical equipment or appliances. The extinguishing agent for a Class C fire must be a nonconducting agent. Carbon dioxide and multi-purpose dry chemical fire extinguishers are ideal for use on these types of fires. Never use a water fire extinguisher on a Class C fire.
- **Class D.** Class D fires are those involving combustible metals such as magnesium, titanium, zirconium, sodium, lithium, and potassium.

Portable fire extinguishers are located throughout all facilities, including job site trailers and job shacks as well as client facilities. They are mounted is readily accessible locations such as hallways, near exit doors, and areas containing fire hazards. Make sure that fire extinguishers are accessible and securely mounted.

The Safety Department inspects and tests fire extinguishers at lease annually. The Safety Department also recharges extinguishers and provides fire extinguisher training. Each operating department is responsible for regular visual inspections of the fire extinguishers in their work areas. Fire extinguishers must be recharged after every use. To move a fire extinguisher to a new location or report a missing or damaged fire extinguisher, notify the Safety Department.

Sprinkler Systems

The purpose of water sprinklers systems is to help extinguish and minimize the spread of fires. Sprinklers normally are activated only by heat. They CANNOT be activated by emergency pull stations. To ensure that sprinklers are effective, maintain at least 18 inches of clearance between any equipment or storage items and the ceiling. Anything close to the ceiling can impair the sprinkler system's effectiveness. Never hang anything from a sprinkler head.

Halon and Carbon Dioxide Systems

Work areas such as computer rooms and chemical storage rooms may contain specialized fire suppression systems. For example, many computer rooms contain Halon systems and many chemical storage rooms contain carbon dioxide systems. Areas with special fire suppression systems will be clearly identified with a placard on the room door.

NOTE: Halon tradionally was used as a fire suppressant in computer rooms because it leaves no residue that might damage computer equipment or media. However, Halon has been determined to be an ozone-depleting agent and is no longer being manufactured. Strata Ferrous Inc. does not use this system. If a client uses Halon systems, appropriate training will be given to those employees who will be working in this environment before work begins.

Fire Hoses and Standpipe Systems

Fire hose cabinets are located near exit stairwells and in corridors. Employees that have had proper training may use a fire hose to extinguish Class A fires.

Smoke Hazards

Smoke can kill! Smoke is responsible for more fire fatalities than flames. Many fires produce immense amounts of smoke that is highly toxic. A smoky fire can have the following effect on people:

- Within 30 seconds: Disorientation.
- Within 2 minutes: Unconsciousness.
- Within 3 minutes: Death.

In a fire, you must avoid passing through smoke-filled areas. If you must pass through a room filled with smoke, hold your breath or keep low to the floor where the smoke is likely to be less dense. Cover your mouth and nose with a wet cloth for comfort as you pass through smoke-filled areas. However, be aware that you cannot rely on a wet cloth for protection from toxic fumes.

Combustible Storage

By storing excess combustible materials improperly, employees not only increase the potential for fire, they increase to potential severity of a fire. To reduce the hazards associated with combustible storage, follow these guidelines:

- Eliminate excess combustible materials, such as paper and cardboard.
- Do not store combustible materials in hallways, stairwells, or mechanical rooms.
- When stacking combustible materials, leave at least 18 inches between the top of the stack and the ceiling.
- Check to see that the appropriate type of fire extinguishers or fire suppression systems have been installed in any area in which combustible materials will be stored.

Liquefied Petroleum Gas

Liquefied petroleum gas (LPG) includes butane and propane. Types of LPG-powered equipment used by Millwright Sites LLC include:

- Forklifts and man lifts.

LPG is extremely flammable. Do not store LPG near heat, flame, or other ignition sources. In addition, do not leave portable LPG containers larger than 16 ounces in a building overnight. Instead, place portable LPG containers and LPG equipment outside in a ventilated shed designated for LPG storage. The shed must be at least 25 feet away from other buildings, combustible materials, roadways railroads, pipelines, utility lines, and the property line. The shed must be kept locked and have a portable fire extinguisher within 25 feet.

Exhaust fumes form LPG equipment may contain carbon monoxide, which can present a health hazard. The exhaust also could activate a smoke detector. Take precautions to ensure adequate ventilation when using LPG-powered equipment.

Holiday Decorations

Holiday decorations often can be fire hazards. Follow these guidelines to improve fire safety during the holidays:

- Do not use live Christmas trees. Use an artificial tree that is fire resistant.
- Do not place holiday decorations where they might block stairways, corridors, doors, or other emergency exits.
- Only use decorations that are flame retardant.
- Practice good housekeeping by minimizing paper and other combustible decorations.
- Avoid using extension cords. If you must use an extension cord, use a heavy gauge cord and place it in plain view.
- Only use lights and extension cords with the Underwriters Laboratory (UL) or Factory Mutual (FM) approved label.
- Do not light candles or use other decorations near open flames.

Arson

If you suspect arson, no matter how small the incident, contact your supervisor or the Safety Department. Do not alter the fire scene in any way, unless you are trying to extinguish a live fire.

Acts of Terrorism Procedures

Introduction

Millwright Sites LLC takes all acts of terrorism seriously. All employees should follow these procedures. If employees follow these procedures, the risk of harm to employees will be minimized while the chances of apprehending the person who make the threat will be maximized.

Bomb Threat Procedures: How to Handle a Threatening Phone Call

If you receive a bomb threat over the telephone, remain calm and act courteous. If possible, notify another person to listen on another extension. Take notes on the caller's threat, tone, voice characteristics, and background noise.

If the caller seems willing to talk, try to find out as much as possible about the caller and threat. Ask questions, such as:

- When will the bomb go off? How much time remains?
- Where is the bomb located?
- What kind of bomb is it?
- How do you know about this bomb?
- What is your name?
- Do you know that there are people in the building or job site who could be hurt or killed?

Employees can use the form at the end of this document to make notes of the telephone conversation.

TELEPHONE BOMB THREAT FORM

GENERAL INFORMATION

Date of call: _____
Time of call: _____
Time caller hangs up: _____
Exact words used by caller:
_____
_____
_____
_____
_____

CALLERS IDENTITY
Male: _____ Female: _____
Approximate age: _____

VOICE CHARACTERISTICS
Loud voice: _____ Soft voice: _____
High-pitched voice: _____ Low-pitched voice: _____
Intoxicated: _____

ACCENT
Local accent: _____ Foreign accent: _____
Race: _____

SPEECH
Fast speech: _____ Slow speech: _____
Distinct speech: _____ Slurred speech: _____
Nasal speech: _____ Lisp speech: _____
Normal speech: _____

MANNER
Calm: _____ Angry: _____
Rational: _____ Irrational: _____
Coherent: _____ Incoherent: _____
Emotional: _____ Laughing: _____

LANGUAGE/GRAMMAR
Excellent grammar: _____
Good grammar: _____
Fair grammar: _____
Poor grammar: _____
Foul grammar: _____

BACKGROUND NOISES
Voices in background: _____
Music in background: _____
Animals in background: _____
Street traffic in background: _____

After the Threatening Phone Call

Take the following steps after the caller hangs up:

- After the caller hangs up, hang up the phone. Immediately, before the next call comes in, dial *57. Listen and write down what the recorded message says.
- Hang up the phone, pick up the phone and dial *69. Listen and write down what the recorded message says.
- Call the police department by dialing 911 and report the following information:

    1) your name;
    2) location and telephone number you are calling from;
    3) the fact that you have received a bomb threat;
    4) location of the device, if known;
    5) time the device is set to detonate, if known;
    6) type of device, if known;
    7) exact time you received the call;
    8) the information you received after dialing *57 and *69; and
    9) any other information from your notes.
- Inform your supervisor and building security.
- Take further action as instructed.

Finding Suspicious Objects

Employees who find suspicious objects, such as unattended packages, should do the following:

- Do not touch, move, or handle the object or anything attached to it.
- Immediately inform your supervisor and building security.

Personal Protective Equipment

Purpose

The purpose of this program is to establish the procedures under which Strata Ferrous Inc. will evaluate the need for equipment to protect employees from workplace hazards that could cause serious injury or death.

Whenever possible, Millwright Sites LLC will eliminate hazards through the use of engineering controls or through work-process redesign. When hazards cannot be eliminated, Millwright Sites LLC will select appropriate personal protective equipment (PPE) for use by affected employees.

Safety Department

The Safety Department is responsible for:

- Conducting workplace hazard assessments to determine whether there are any hazards that require the use of PPE;
- Conducting periodic reassessments of workplace hazards;
- Maintaining records and certifications of hazard assessments;
- Providing guidance to supervisors on the selection and purchase of approved PPE;
- Training and providing technical assistance to supervisors on the proper use, care, and cleaning of approved PPE;
- Periodically reevaluating the suitability of previously selected PPE;
- Maintaining records on PPE assignments and training; and
- Reviewing and updating Strata Ferrous Inc.'s PPE program.

Supervisors

Supervisors have the primary responsibility for implementing the PPE program within their departments. Each supervisor is responsible for:

- Analyzing hazards in the work areas for which they are responsible;
- Updating hazard assessments when new hazards are encountered or when processes are added or changed;
- Selecting appropriate PPE to protect employees against hazards in their work areas;
- Ensuring that PPE fit employees properly;
- Training employees on the proper use, care, and cleaning of PPE; and
- Supervising employees to ensure that PPE program elements are followed and that employees properly use and care for PPE.

Employees

Employees are responsible for:

- Wearing PPE as required;
- Attending required PPE training sessions;

- Caring for, cleaning, and maintaining PPE as required; and
- Informing supervisors when PPE needs to be repaired or replaced.

Hazard Assessment Guidelines

Hazard assessments will be conducted jointly by the Safety Department and by supervisors. The assessments will include the following steps;

1) Reviewing injury and illness logs, accident reports, and workers' compensation records to identify problem areas and to determine whether any injuries could have been prevented by the use of PPE.
2) Conducting a walk-through survey of each work area to identify hazards, including impact, penetration, compression, chemical, heat, dust, and electrical, and light radiation hazards.
3) Analyzing each job or task to identify potential hazards and to access the need for PPE.
4) Organizing and analyzing hazard assessment data from the walk-through survey to estimate the potential for injuries, including injuries from potential exposure to multiple hazards.
5) Categorizing risks by type of hazard, level of risk, and seriousness of potential injuries caused by the hazard.
6) Documenting the survey and task analyses using a Hazard Assessment Certification Form, which identifies the workplace surveyed, the person carrying out the survey, the survey findings, and the date the survey was conducted.

Hazard assessments should consider employees who occasionally enter hazardous areas, such as administration staff who must walk through a plant's production area. PPE—including safety glasses or a hard hat-- must be available for such personnel during the brief time they are exposed to plant hazards.

Hazard reassessments will be performed when new hazards are identified, new equipment or processes are introduced, or when a reassessment is deemed necessary by the Safety Department Manager.

PPE Selection Guidelines

Supervisors, in consultation with the Safety Department Manager and Purchasing Manager, are responsible for selecting and purchasing PPE. Supervisors must be familiar with the potential hazards in the workplace, as well as the types of PPE that are effective in protecting against such hazards. The procedure for selecting PPE is as follows:

1) Compare the hazards found in the workplace hazard assessment with the capabilities of the available PPE.
2) Review whether PPE provide a level of protection greater that the minimum required to protect employees from the hazards.
3) Fit affected workers with the appropriate protective devices.

4) Train employees on the care and use of the PPE, including the limitations of their PPE and the meaning of warning labels for each device.

NOTE: A worker sometimes must wear one piece of PPE in combination with another piece. In such cases, both pieces of PPE should fit well and one piece of PPE should not interfere with the effectiveness of the other piece of PPE. For instance, if a worker must wear a hard hat while wearing a respirator, both should fit well and remain effective.

Training

Before allowing an employee to perform work requiring the use of PPE, supervisors should ensure than employees receive training regarding:

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

After training, employees must demonstrate—on an ongoing basis—an understanding of the components of the PPE Program and how to use PPE properly.

The Safety Department will provide periodic retraining. Supervisors must ensure that employees receive retraining as necessary. Retraining may be required when:

- Changes in the workplace, work processes, or equipment require changes in the way PPE us used or in the type of PPE used; or
- An employee fails to demonstrate competency in the use of PPE.

PPE Maintenance

PPE must be kept sanitary and in good condition. Employees are responsible for cleaning PPE as necessary and for inspecting PPE before each use.

PPE shared between employees must be properly cleaned and sanitized before and after use. When contaminated PPE cannot be decontaminated, it must be discarded in a manner that protects employees from harmful exposure and that complies with environmental regulations.

The Safety Department Manager is responsible for maintaining written records of hazard assessments and PPE training. Training records must include the names of the persons trained, the type of training provided, and the dates when the training occurred. Employee training and hazard assessment records must be kept for at least three years.

Hand Protection Guidelines

Gloves may be necessary when employees' hands or arms require protection from workplace substances or processes. Protective work gloves will be selected based on the hazards present and the protective characteristics of the gloves.

No single type of glove is effective against all types of hazards. Common types of protective work gloves and the hazards against which they may be effective include:

- **Disposable Gloves.** Disposable gloves usually are made of lightweight plastic or rubber. The gloves may be effective in providing protection against mild irritants. If the gloves are nonporous, they may also provide protection against infectious materials.
- **Fabric Gloves.** Gloves made of cotton or fabric blends generally are used to improve grip when handling slippery objects. They also help insulate hands from mild heat or cold.
- **Leather Gloves.** Leather gloves are used to protect against injuries that may be caused by sparks or by scraping against rough surfaces. Leather gloves may be used in combination with an insulated liner to protect against electricity.
- **Metal Mesh Gloves.** Metal mesh gloves provide workers protection from accidental cuts when working with cutting tools or other sharp instruments.
- **Aluminized Gloves.** Gloves made of an aluminized fabric are designed to insulate hands from intense heat.
- **Chemical Resistance Gloves.** Chemical resistance gloves can protect workers' hands for corrosives, oils, and solvents. The gloves usually are made of neoprene, polyvinyl alcohol, or vinyl. When selecting chemical resistance gloves, be sure to read the manufacturers instructions and use recommendations.
- **Rubber Insulating Gloves.** Rubber insulating gloves are used to protect workers against electrical shocks and burns. Insulating gloves must meet the American Society for Testing and Materials (ASTM) standard, D 120-87, "Specification for Rubber Insulating Gloves."

Head Protection Guidelines

All employees working in areas where there is a possible danger of head injury from impact, or from falling or flying objects, or from electrical shock and burns; shall be protected by protective helmets. Protective headwear must resist penetration and absorb the shock of a blow. The headband and crown straps of a protective helmet must keep the shell away from the employee's skull.

Protective helmets or hard hats must protect workers against electrical shock and burns. Helmets are rated as follows:

- **Class A.** These helmets provide general protection, including limited protection against electrical hazards. This helmet shall meet the specifications contained in American National Standards Institute, Z89.1-1969, Safety Requirements for Industrial Head Protection.
- **Class B.** Class B helmets are designed for electricians and workers who work around high voltage electrical hazards. This helmet shall meet the specifications contained in American National Standards Institute, Z89.2-1971.
- **Class C.** These helmets provide no voltage protection.

Eye and Face Protection Guidelines

Eye protectors must be worn by employees working in environments in which any of the following hazards exit:

- Flying particles,
- Molten metal,
- Liquid chemicals
- Acids or caustic liquids,
- Chemical gases or vapors, or
- Potentially injurious light radiation.

General Requirements

Protective eyewear must:

- Provide adequate protection against the eye injury hazards present in the workplace;
- Be reasonably comfortable when worn under actual working conditions;
- Fit snugly without interfering with the wear's movements or vision;
- Be durable, easily cleaned, and disinfected; and
- Be distinctly marked to facilitate identification of the manufacturer.

Types of Protective Eyewear

All protective eyewear and face guards must comply with ANSI Z87.1-1989, "American National Standard Practice for Occupational and Educational Eye and Face Protection." Depending on the type of work performed and the type of protection required, eyewear may have to meet other standards. The following are some of the basic classifications of eyewear and face protection that may be appropriate depending on the type of work performed by individual employees:

- **Safety glasses.** Safety glasses are made with shatterproof frames and lens. Lens must be tempered glass or shatterproof plastic. Eyeglasses must have side shields to guard against injuries from flying particles. Workers who wear corrective lens should check with the Safety Department to determine whether prescription safety glasses are required.
- **Single lens goggles.** Goggles hold tempered or shatterproof lenses in a pliable vinyl or rubber frame that fits snuggly against the worker's face. Goggles are available with clear or tinted lenses. Frame types include perforated, port vented, or non-vented. Goggles can provide effective eye protection for workers working with hazardous or corrosive chemicals or gases. Goggles also provide effective eye protection in dusty work environments.
- **Welders' goggles.** Welders' goggles provide protection from sparking, scaling, or splashing metals and harmful light rays. Lenses are impact-resistant and are available in graduated shades of filtration.
- **Face shields.** Face shields must be used in work environments in which the entire face needs protection against hazards such as flying particles, metal sparks, or chemical splash. Face shields usually consist of an adjustable helmet and face shield made of tinted or transparent acetate or polycarbonate materials. Face shields are available in various sizes. Workers should ensure that the face shield they use has the tensile

- strength, heat resistance, and light filtering capabilities required by the particular job they are performing.
- **Welding shields.** Workers involved in welding operations must use face shields to protect worker's eyes and faces from infrared or radiant light burns, flying sparks, and metal spatter encountered during welding, brazing, soldering, and cutting operations. A welding shield assembly consists of:
    1. a vulcanized fiber or glass fiber body;
    2. an adjustable head strap or cap attachment; and
    3. a lens to filter harmful infrared or radiant light.

Fitting Protective Eyewear

A person skilled in the procedure must perform fitting of goggles and safety spectacles. Only qualified optical personnel may fit prescription safety spectacles.

Hearing Protection Guidelines

OSHA regulations require workers to use hearing protection if they work in environments in which noise levels exceed an eight-hour time-weighted average of 85 decibels.

Types off Hearing Protection

Common types of hearing protectors include:

- preformed or molded earplugs;
- self-forming earplugs made of material such as waxed cotton, foam, or fiberglass wool; and
- earmuff-style hearing protectors.

NOTE: Using cotton balls, as earplugs will not provide adequate protection against hazardous noise levels.

Noise Exposure Monitoring Requirements

OSHA requires noise exposure monitoring whenever there is evidence that the workplace noise level exceeds an eight-hour time weighted average of 85 decibels. The Safety Department is responsible for implementing a monitoring program to identify employees who should be included in the hearing conservation program. The Safety Department must notify each employee who is exposed to noise equal or in excess of the OSHA specified action level.

Monitoring must be repeated whenever noise levels are increased to a level that makes existing hearing protection inadequate or causes additional employees to be exposed to noise at or above the action level. The Safety Department must maintain records on noise levels for a period of at least two years following the monitoring.

Hearing Testing Program Requirements

The Safety Department is responsible for implementing and maintaining a hearing testing program for all employees exposed to noise in excess of OSHA's action level. The Safety Department must maintain hearing testing results for the duration of an employee's employment.

A certified audiologist, otolaryngologist, or other physician will supervise hearing tests. Hearing tests will include:

- a baseline audiogram within six months after the employee's first exposure at or above the action level; and
- subsequent audiograms at least annually after the baseline audiogram.

Employees must not be exposed to high-noise levels during the 14 hours prior to the baseline audiogram. Hearing protectors may be used during the 14 hour period of workplace noise will exceed the action level. Employees must ensure that they avoid exposure to high levels of non-occupational noise during the 14 hours before an audiogram.

Each subsequent audiogram must be compared with the employee's baseline audiogram to determine if the employee has suffered a change in hearing above specified levels.

Training Requirements

The Safety Department must ensure that each employee included in the hearing conservation program receives annual training on:

- the effects of noise on hearing;
- the purpose of hearing protectors;
- the advantages, disadvantages, and capabilities of various types of hearing protectors;
- the selection, fit, use, and care of hearing protectors;
- the purpose of audiometric testing; and
- testing procedures.

Supervisors must provide affected employees or their representatives copies of OSHA's hearing protection standard (29 CFR {} 1910.95).

Respiratory Protection Guidelines

Employees must use respirators if they work in an environment that exposes them to harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors that cannot be removed or eliminated by engineering controls. The requirement to wear a respirator is triggered when the air in the workplace contains contaminants in excess of OSHA specified permissible exposure limits (PELs).

Standards Applicable to Respirators

Respirators must meet the requirements specified in OSHA's respiratory protection standard at 29 CFR {} 1910.134 and the NIOSH regulation at 42 CFR part 84. Millwright Sites LLC will select only NIOSH certified respirators.

Training Requirements

The Safety Department is responsible for providing supervisors and employees with training on the use and maintenance of respirators. Each employee required to use a respirator must receive fitting instructions, including demonstrations and practice on how to properly wear the respirator. Employee and supervisor training must include an opportunity to:

- handle the respirator;
- have the respirator properly fitted;
- test the respirator's face piece-to-face seal;
- wear the respirator in a test atmosphere.

Use of Respirators

A good face seal with the respirator's face piece is essential before using a respirator. Employees must check the respirator for proper fit and seal before each use. In particular, employees must ensure that the fit and seal of the respirator face piece is not compromised by items such as the wearer's beard, sideburns, eyeglasses, or the absence of an employee's dentures.

Before assigning an employee to a task that requires the use of a respirator, the employee's supervisor must determine whether the employee is physically able to do the proposed work. The supervisor must review the employee's fitness to perform the work at regular intervals.

Respirator Maintenance

Supervisors are responsible for ensuring that employees properly maintain their respirators. Regular respirator maintenance will include:

- inspection for defects (including leak checks);
- respirator cleaning and disinfection; and
- proper storage.

Only the manufacturer or trained technicians are permitted to perform respirator repairs. The manufacturer's recommendations regarding respirator adjustments and replacement of components must be followed

Respirator Inspection Procedures

Employees must inspect their respirators before and after each use. In addition, random inspections will be conducted by the Safety Department to ensure that respirators are properly used, cleaned, and maintained. The Safety Department will ensure that a record of the most recent inspection is kept. The record must include the date of the inspection, the name of the person conducting the inspection, inspection findings, and a description of any corrective measures—e.g., sending the respirator back to the manufacturer for repair.

Every respirator inspection will include a review of:

- the tightness of connections;
- the condition of the face piece, headbands, valves, connecting tubes, and canisters;
- rubber or elastomer parts for pliability and signs of deterioration; and
- the function of regulators and warning devices.

Supervisors are responsible for ensuring that respirators intended for emergency-use only are inspected at least monthly. Self-contained breathing apparatuses also must be inspected monthly.

Respirator Storage

When not in use, respirators must be stored to protect against dust, sunlight, heat, extreme cold, excessive moisture, and damaging chemicals. Respirators should not be stored in such places as lockers or toolboxes unless they are in protective cases.

Plastic bags may be used for storage of routinely used respirators. Respirators placed in work areas for emergency use should be accessible at all times and should be stored in clearly marked compartments designed for easy access.

During storage and packing, each respirator's face piece and exhalation valve must rest in a normal position. When packing or storing a respirator, workers must ensure that the respirator function will not be impaired by the elastomer setting in an abnormal position.

Foot Protection Guidelines

Protective footwear must be worn when an employee's work involves:

- activities in which heavy objects might fall or roll onto an employee's foot;
- sharp objects that could pierce the sole of an employee's footwear;
- extremely hot materials that could quickly burn through casual footwear, such as athletic shoes; or
- exposure to electrical hazards.

Standards Applicable to Protective Footwear

Safety shoes must comply with ANSI Z41-1991, " America National Standard for Personnel Protection—Protective Footwear." Footwear that meets established safety standards will have an ANSI label inside each shoe.

Hazard Assessment Certification

Date of Certification: _____
Date(s) of Hazard Assessment: _____
Tasks or Department Assessed: _____
Location: _____
Assessment Conducted By: _____

Checklists Completed:

_____ Hand Protection Checklist
_____ Head Protection Checklist
_____ Eye and Face Protection Checklist
_____ Hearing Protection Checklist
_____ Respiratory Protection Checklist
_____ Foot Protection Checklist

Summary of Identified Safety and/or Health Hazards:

Task	*Hazard*	*Abatement Measure*

I certify that, to the best of my knowledge, the above hazard assessment complies with OSHA's personal protective equipment standard (29 CFR § 1910.132(d)(2).

Signature of Certifier: _____

Title of Certifier: _____

Certification of Employee Training in PPE Use

Date of Training: _____
Location: _____
Type of Training: _____
Instructor: _____

I, _____ (name of individual), certify that on _____ (date) the following employees of the _____ (Department or Division) received training on the use of personal protective equipment (PPE) as required under OSHA's PPE standard (29 CFR § 1910.132).

Employee Name	*Title*

As part of this training, employees were informed of the PPE selected by Millwright Sites LLC for their use. I further certify that each employee listed above has demonstrated understanding of this training.

Signature: _____

Date: _____

Hazard Assessment Checklists

Supervisors and Safety Department personnel should use the following checklist to document and guide workplace hazard assessments:

- Hand Protection Checklist;
- Head Protection Checklist;
- Eye and Face Protection Checklist;
- Hearing Protection Checklist;
- Respiratory Protection Checklist; and
- Foot Protection Checklist.

In addition to completing the checklist, individuals conducting hazard assessments also should solicit and record input directly from employees.

Hand Protection Checklist

Hazard Assessment

Are there any hand or arm injury hazards? Check any of the following hazards that are present:

□ Yes □ No Sharp edges?

□ Yes □ No Splinters?

□ Yes □ No Sharp tools or machine parts?

□ Yes □ No Extreme cold?

□ Yes □ No Extreme heat?

□ Yes □ No Exposed electrical wires or other electrical shock hazards?

□ Yes □ No Power tools or machinery?

□ Yes □ No Hazardous chemicals?

□ Yes □ No Biological agents?

□ Yes □ No Bodily fluids?

□ Yes □ No Other? Specify below:

_____
_____

Exiting Hand Protection

Do workers use protective gloves? Check the type of hand protection used:

□ Yes □ No Disposable latex gloves? For what types of tasks (list below)?

_____

□ Yes □ No Cotton or fabric blend gloves? For what types of tasks (list below)?

_____

□ Yes □ No Leather gloves? For what types of tasks (list below)?

_____

□ Yes □ No Metal mesh gloves? For what types of tasks (list below)?

_____

□ Yes □ No Aluminized gloves? For what types of tasks (list below)?

_____

□ Yes □ No Chemical resistant gloves? For what types of tasks (list below)?

_____

□ Yes □ No Rubber insulating gloves? For what types of tasks (list below)?

_____

□ Yes □ No Other? Specify below:

_____

Are any of the following types of hand protection used in the work area?

□ Yes □ No Guards or shields on equipment? For what types of tasks (list below)?

_____

□ Yes □ No Protective sleeves? For what types of tasks (list below)?

_____

□ Yes □ No Protective wristlets? For what types of tasks (list below)?

_____

□ Yes □ No Other? Specify below:

_____

Summary of Hazards Identified and PPE Requirements:

Head Protection Checklist

Hazard Assessment

Are there any head injury hazards? Check any of the following hazards that are present:

□ Yes □ No Suspended loads that could fall?

□ Yes □ No Overhead beams or loads against which an employee could hit his or her head?

□ Yes □ No Employees working at an elevated site who could drop objects on others?

□ Yes □ No Work below or around conveyor belts carrying parts and/or materials?

□ Yes □ No Work below machinery or processes that could cause material or objects to fall?

□ Yes □ No Sharp objects or corners at head level?

□ Yes □ No Exposed electrical wires or other potential sources of electrical shock or burns?

□ Yes □ No Other head injury hazards? Specify below:

Existing Head Protection

Are protective helmets or hard hats currently used? If so, use the following checklist to evaluate them:

□ Yes □ No Is the material hard enough to resist penetration?

□ Yes □ No Do crown straps keep the shell of the helmet or hat away from the wearer's skull?

If hard hats or helmets are used, what is their rating?

□ Yes □ No Class A (impact and penetration resistance, plus low-voltage electrical insulation, proof tested to 2,200 volts)?

□

Yes □ No Class B (impact and penetration resistance, plus high-voltage electrical insulation, proof tested to 20,000 volts)?

□ Yes □ No Class C (impact and penetration resistance, usually made of aluminum and conduct electricity, so not suitable for use around electrical hazards)?

Summary of Hazards Identified and PPE Requirements:

Task	*Hazard*	*Abatement Measure*

Eye and Face Protection Checklist

Hazard Assessment

Are any of the following eye and face injury hazards present in the work area?

□ Yes □ No Sources of dust or flying particles, such as chipping, grinding, drilling, chiseling, riveting, or sanding?

□ Yes □ No Molten metal?

□ Yes □ No Acids or caustic liquids?

□ Yes □ No Chemical gases or vapors?

□ Yes □ No Potentially injurious light radiation?

□ Yes □ No Handling of chemicals or other toxic substances?

□ Yes □ No Smoke and fumes?

□ Yes □ No Other eye injury hazards? Specify below:
_____

Existing Eye and Face Protection

Is protective eyewear or other eye or face protection currently used? Indicate the types of eye and face protection used:

□ Yes □ No Safety glasses? For what types of tasks (list below)?

_____

□ Yes □ No Goggles? For what types of tasks (list below)?

_____

□ Yes □ No Face shields? For what types of tasks (list below)?

_____

□ Yes □ No Welding shields? For what types of tasks (list below)?

_____

□ Yes □ No Helmets that include face shields? For what types of tasks (list below)?

_____

Summary of Hazards Identified and PPE Requirements:

Task	*Hazard*	*Abatement Measure*

Hearing Protection Checklist

Hazard Assessment

□ Yes □ No Are employees exposed to high levels of noise that may require employees to use hearing protection?

If high noise levels are present in the workplace, check the following as appropriate:

□ Yes □ No Is a monitoring program in place to determine the noise level to which employees are exposed?

□ Yes □ No If monitoring determines that noise levels equal or exceed an eight-hour time weighted average of 85 decibels, is a baseline audiogram obtained for each employee exposed to high noise levels?

□ Yes □ No Are follow-up audiograms conducted at least annually for each employee after the employer's baseline audiogram?

Existing Hearing Protection

What types of hearing protectors are provided to employees?

□ Yes □ No Performed or molded earplugs? For what types of tasks (list below)?

_____

□ Yes □ No Self-forming earplugs made of waxed cotton, foam, or fiberglass wool? For what types of tasks (list below)?

_____

□ Yes □ No Disposable earplugs? For what types of tasks (list below)?

_____

□ Yes □ No Earmuff-style hearing protectors? For what types of tasks (list below)?

_____

□ Yes □ No Other hearing protectors (specify)? For what types of tasks (list below)?

_____

□ Yes □ No Were the hearing protectors fitted by a qualified professional?

□ Yes □ No Are employees provided training in the use of the hearing devices they use?

Summary of Hazards Identified and PPE Requirement:

Task	*Hazard*	*Abatement Measure*

Respiratory Protection Checklist

Hazard Assessment

Are high levels of any of the following types of respiratory hazards present in the work area?

□ Yes □ No Harmful dusts?

□ Yes □ No Fumes or vapors?

□ Yes □ No Chemical mists or sprays?

□ Yes □ No Gases?

□ Yes □ No Smoke?

If yes, give specifics on the substances and exposure levels, if known:

_____

_____

□ Yes □ No Do work processes potentially expose employees to any substances or respiratory hazards that may require emergency use of respirators? If yes, specify:

Substances	*Exposure Level*

Existing Respiratory Protection

Are respirators currently used during:

□ Yes □ No Routine work operations?

□ Yes □ No Maintenance and repair operations?

What types of respirators are used (check all that apply)?

□ Yes □ No Gas masks? For what types of tasks (list below)?
_____
_____

□ Yes □ No Compressed air? For what types of tasks (list below)?
_____
_____

□ Yes □ No Liquid air? For what types of tasks (list below)?
_____
_____

□ Yes □ No Compressed oxygen? For what types of tasks (list below)?
_____
_____

□ Yes □ No Liquid oxygen? For what types of tasks (list below)?
_____
_____

□ Yes □ No Other (list below)?
_____
_____

If compressors are used, are the following safety devices installed (check all that apply)?

□ Yes □ No Suitable in-line air purifying sorbet beds and filters to ensure quality of breathing air?

□ Yes □ No A receiver of sufficient capacity to enable the respirator user to escape from contaminated atmosphere in the event of compressor failure?

□ Yes □ No An alarm to indicate compressor overheating?

□ Yes □ No A carbon dioxide alarm?

If gas mask canisters are used (check all that apply):

□ Yes □ No Do canisters have clearly worded text labels specifying the intended use by type and volume of contaminant?

□ Yes □ No Are canisters labeled as Type N gas mask canisters, if applicable?

□ Yes □ No Are gas mask canisters clearly color coded using a paint that is resistant to ordinary conditions likely to be present during storage and use?

Are proper housekeeping and disinfection procedures used (check all that apply)?

□ Yes □ No Are respirators regularly cleaned and disinfected?

□ Yes □ No Are respirators stored in a convenient, clean, and sanitary location?

□ Yes □ No Are respirators regularly inspected for defects during cleaning?

□ Yes □ No Are respirators that are only used in emergencies inspected at least once a month and after each use?

□ Yes □ No Are worn or deteriorated respirator parts replaced before respirators are used?

□ Yes □ No Are employees using respirators routinely monitored to determine the degree of exposure or stress to which they are subjected?

□ Yes □ No is the respirator program regularly evaluated to determine its effectiveness?

□ Yes □ No Is training in the use of respirators provided to employees required to use respirators and to they supervisors of those employees?

Summary of Hazards Identified and PPE Requirements:

Foot Protection Checklist

Hazard Assessment

Are any of the following foot-injury hazards present in the work area?

□ Yes □ No Heavy materials handled by employees.

□ Yes □ No Objects that may roll over an employee's foot, such as skid trucks, bulk rolls, or heavy pipes?

□ Yes □ No Items that may be stepped on by employees, such as large stables, nails, wire, tacks, screws, or scrap materials?

□ Yes □ No Overhead objects that may fall on the foot?

□ Yes □ No Slippery conditions?

□ Yes □ No Other types of materials or processes that may cause foot injuries? Specify below:

_____
_____

Existing Foot Protection

What level of foot protection is provided by required footwear (check all that apply)?

□ Yes □ No Impact protection against blows from objects falling on the foot?

□ Yes □ No Compression protection against objects that may roll over an employee's foot?

□ Yes □ No Toe protection?

□ Yes □ No Metatarsal protection?

□ Yes □ No Protection against puncture?

□ Yes □ No Protection against electrical shock?

□ Yes □ No Other (specify)?

_____
_____

□ Yes □ No Is training in the use of protective footwear currently provided to affected employees and their supervisors?

Summary of Hazards Identified and PPE Requirements:

Task	*Hazard*	*Abatement Measure*

Model Hearing Conservation Program

I. Policy

It is Millwright Sites LLC's policy to provide employees with a safe and healthful working environment. This is accomplished by using facilities and equipment that have all feasible safeguards incorporated into their design. When effective engineering controls are not feasible, or when they are being initiated, administrative controls will be used when and where possible, followed by the use of personal protective equipment.

The primary goal of the Hearing Conservation Program is to reduce, and eventually eliminate, hearing loss due to workplace noise exposures. The program includes the following elements:

- Work environments will be surveyed to identify potentially hazardous noise levels and personnel at risk.
- Environments that contain or equipment that produces potentially hazardous noise should, wherever it is technologically and economically feasible, be modified to reduce noise to acceptable levels.
- Where engineering controls are not feasible, administrative controls and/or the use of hearing protective devices will be employed.
- Periodic hearing testing will be conducted to monitor the effectiveness of the hearing conservation program. Early detection of temporary threshold shifts will allow further protective action to be taken before permanent hearing loss occurs.
- Education is vital to the overall success of a hearing conservation program. An understanding by employees of the permanent nature of noise-induced hearing loss, the hearing conservation program, and the employee's responsibilities under the program are all essential for program effectiveness.

Millwright Sites LLC., aware that excessive noise exposure is a potential cause of hearing loss, is establishing a hearing conservation program that is more conservative than that required by OSHA. Millwright Sites LLC has adopted the American Conference of Governmental Industrial Hygienists (ACGIH) noise exposure limits referred to as threshold limit values (TLV):

Duration per day, hours	*Sound level (dBA)*
16	80

8	85
4	90
2	95
1	100
1/2	105
1/4	110
1/8	115

(Note: For the levels specified in OSHA's noise standard, see 29 CFR § 1910.95.)

When the sound levels listed above are exceeded, feasible administrative or engineering controls will be instituted. If the controls fail to reduce the sound levels to within those listed above, hearing protection will be provided and used to reduce the sound levels to an acceptable level. In addition, OSHA requirements dictate that whenever employee noise exposures equal or exceed an 8-hour time-weighted average (TWA) of 85 dBA, slow response, a continuing effective hearing conservation program shall be instituted.

II. Responsibilities

2.1 Office of Health and Safety (Safety Manager)

The Office of Health and Safety (Safety Manager) is responsible for developing, implementing, and administering Millwright Sites LLC's Hearing Conservation Program. Additional responsibilities include:

- Identification of work areas and equipment within facilities where noise levels equal or exceed 80 dBA.
- Identification, through personnel monitoring, of employees whose noise exposure level equals or exceeds an 8-hour TWA of 80 dBA. Employee exposure measurements is included in employee's medical files.
- Annual re-monitoring of identified at-risk employees.
- Resurvey of work areas and equipment where noise levels exceed 80 aBA every 2 years.
- Training of employees in the need for, proper use, and care of hearing protection devices.
- Identification of noise control measures (including engineering and administrative controls) and recommendations.

The Office of Health and Safety/Safety Manager is responsible for arranging for baseline and annual audiograms for new employees who may be assigned to tasks with potential exposure to elevated levels of noise. The Office also arranges for annual audiograms for employees exposed to sound levels greater than or equal to 80 dBA. The Office should identify all employees who have experienced significant changes in hearing (standard threshold shifts) so that follow-up investigations may be conducted.

The Office of Health and Safety is also responsible for coordinating and scheduling health and safety training for employees. The Office maintains documentation of the training courses conducted.

2.2 Supervisors

It is the responsibility of Supervisors to ensure that all of their employees exposed to noise levels equal to or greater than 80 dBA have access to appropriate hearing protective devices in the work area. Supervisors are also responsible for enforcing the use of hearing protective devices and engineering and administrative controls in designated noise hazardous areas.

Employees

Employees are responsible for wearing and maintaining hearing protective devices as instructed. Employees exposed to excessive levels of noise must also participate in annual training programs and the medical surveillance program which includes audiometric testing.

III. Noise Evaluation and Surveillance Procedures

Identification of Hazardous Noise Areas

The Office of Health and Safety (Safety Manager) will identify work areas where noise levels equal or exceed 80 dBA. Records shall be maintained and updated at least every two years to determine if any alteration in noise levels has occurred. Those areas where the noise levels are below 80 dBA will not be routinely monitored. The Office will identify hazardous noise areas and equipment and conduct and subsequent noise monitoring.

Signs will be posted at the entrance to any work area where noise levels exceed 80 dBA, requiring anyone entering the area to wear proper hearing protection. Personnel who work in these areas shall have hearing protection supplied to them, be instructed in its proper use, and be required to wear this equipment when in these identified areas. It is the responsibility of the area supervisor to ensure that these precautions are maintained.

Equipment that produces noise levels greater than 80 dBA, or 120 dB peak sound pressure levels, shall also be appropriately labeled.

Noise Measurements and Exposure Assessments

To effectively control noise, it must be accurately measured according to standard procedures and the measurements must be properly evaluated against accepted criteria. All noise monitoring will be conducted in accordance with established standard operating procedures.

The monitoring of employees for noise exposure is made up of two parts: area and personnel monitoring. Area measurements are generally obtained first. If noise levels are at or above 80 dBA, personnel monitoring using dosimeters is then performed. Sample date sheets will be used to record monitoring data for both area and personal noise monitoring results.

Area Measurements

In an area survey, measurements of environmental noise levels are recorded using a sound level meter to identify work areas where employee's exposures may be above hazardous levels, and where more thorough exposure monitoring may be needed. Area monitoring is conducted using a calibrated sound level meter set to the A scale, slow response. Within the area of interest, several different locations will be measured.

Typical measurement locations would include:

- In the hearing zone at the employee's normal work location;
- Next to the noise source(s);
- At the entrance(s) to the work area; and
- At other locations within the area where the employees might spend time working.

A rough sketch of the area will be included with the results showing the locations where the noise readings were obtained.

If the noise levels are below 89 dBA on a time-weighted average basis in the area, no further routine monitoring will be required for that area. Should any of the noise measurements equal or exceed 80 dBA, records shall be maintained as to the noise levels recorded, where they were taken, and the source(s) of the noise. These records shall be updated at least once every two years to determine if any changes have occurred that would warrant re-monitoring of exposed personnel. If any of the measurements equal or exceed a noise level of 80 dBA, employees who work in or near the high noise area or equipment shall have their noise exposure determined through personnel monitoring using dosimeters

Personnel Monitoring

Determination of the noise exposure level will be accomplished using calibrated noise dosimeters. Each employee to be monitored will have a dosimeter placed on him/her at the beginning of his/her normal work shift with the microphone placed in the "hearing zone." The dosimeter will be worn for the full duration of the work shift while employee performs his/her normal work routine. At the end of the work shift, the dosimeter will be removed and information printed out as soon as possible. Background information will be collected from each employee detailing job description, unusual job activities, etc., for the time period sampled. Those employees whose noise exposure equals or exceeds 80 dBA on an 8-hour TWA will be included in the Hearing Conservation Medical Surveillance Program.

Re-monitoring of Hazardous Noise Areas

All areas where noise levels equal or exceed 80 dBA shall be re-monitored at least every two years. Employees who work for extended periods of time (>2 hours) in the high noise areas and where their 8-hour TWA equals or exceeds 80 dBA will be monitored every year to determine their personal noise exposure.

Whenever an employee exhibits a standard threshold shift, the employee's work place shall be re-monitored to identify and ameliorate the cause.

Re-monitoring Due to Changes

Any area with noise levels that equal or exceed 80 dBA shall also be re-monitored whenever a change in production process, equipment, or controls increase the noise exposure such that additional employees are exposed to noise levels at or above 80 dBA on a time-weighted average basis. Areas where the noise levels have dropped below 80 dBA due to alterations in equipment, controls, or process changes shall be eliminated from the monitoring program.

IV. Noise Control Method

4.1 Engineering and Administrative Controls

The primary means of reducing or eliminating personnel exposure to hazardous noise is through the application of engineering controls. Engineering controls are defined as any modification or replacement of equipment, or related physical change at the noise source or along the transmission path that reduces the noise level at the employee's ear. Engineering controls such as mufflers on heavy equipment exhausts or on air release valves are required where possible.

Administrative controls are defined as changes in the work schedule or operations which reduce noise exposure. If engineering solutions cannot reduce the noise, administrative controls such as increasing the distance between the noise source and the worker or rotation of jobs between workers in the high noise area should be used if possible.

The use of engineering and administrative controls should reduce noise exposure to the point where the hazard to hearing is eliminated or at least more manageable.

4.2 Personal Protective Equipment

Hearing protective devices (ear plugs, muffs, etc.) shall be the permanent solution only when engineering or administrative controls are considered to be infeasible or cost prohibitive. Hearing protection devices are defined as any device that can be worn to reduce the level of sound entering the ear.

Hearing protective devices shall be worn by all personnel when they must enter or work in an area where the operations generate noise levels of:

- Greater than 80 dBA sound levels, or
- 120 dB peak sound pressure level or greater.

Types of Hearing Protective Devices

Hearing protective devices include insert type earplugs and earmuffs.

Insert Type Earplugs are devices designed to provide an airtight seal with the ear canal. There are three types of insert earplugs:

1. Premolded Earplugs. These are pliable devices of fixed proportions. Two standard styles, single flange and triple flange, come in various sizes, and will fit most people. Personnel responsible for fitting and dispensing earplugs will train users on proper insertion, wear, and care. While premolded earplugs are reusable, they may deteriorate and should be replaced periodically.
2. Formable. Formable earplugs come in just one size. Some are made of material which, after being compressed and inserted, expands to form a seal in the ear canal. When properly inserted, they provide noise attenuation values that are similar to those from correctly fitted premolded earplugs. Individual units may procure approved formable earplugs. Supervisors must instruct users in the proper use of these earplugs as part of the annual education program. Each earplug must be held in place while it expands enough to remain firmly seated. A set of earplugs with a cord attached is available. These earplugs may be washed and therefore are reusable, but will have to be replaced after two or three weeks or when they no longer form an airtight seal when properly inserted.
3. Custom Molded Earplugs. A small percentage of the population cannot be fitted with standard premolded or formable earplugs. Custom earplugs can be made to fit the exact size and shape of the individual's ear canal. Individuals needing custom earplugs will be referred to an audiologist.

Earmuffs are devices worn around the ear to reduce the level of noise that reaches the ear. Their effectiveness depends on an airtight seal between the cushion and the head.

Selection of Hearing Protective Devices

Employees will be given the opportunity to select hearing protective devices from a variety of suitable ones provided by the Office of Health and Safety. In all cases the chosen hearing protectors shall have a Noise Reduction Ratio (NRR) high enough to reduce the noise at the eardrum to 80 dBA or lower.

Issuance of Hearing Protective Devices

The Office of Health and Safety (Safety Manager) will issue and fit the initial hearing protective devices (foam inserts, disposables). Instruction on the proper use and care of earplugs and earmuffs will be provided whenever hearing protection devices are dispensed. Personnel requiring earmuffs in addition to earplugs will be informed of this requirement and educated on the importance of using proper hearing protection. The Office will dispense earmuffs when necessary and will maintain a supply of disposable earplugs.

Use of Hearing Protective Devices

Always use and maintain hearing protective devices as originally intended and in accordance with instructions provided. Earmuff performance may be degraded by anything the compromises the cushion-to-circumaural flesh seal. This includes other pieces of personal protective equipment, such as eyewear, masks, faceshields, and helmets.

Maintenance of Hearing Protective Devices

Reusable earplugs, such as the triple flange or formable devices should be washed in lukewarm water using hand soap, rinsed in clean water, and dried thoroughly before use. Wet or damp earplugs should not be placed in their containers. Cleaning should be done as needed.

Earmuff cushions should be kept clean. The plastic or foam cushions may be cleaned in the same way as earplugs, but the inside of the muff should not get wet. When not in use, earmuffs should be placed in open air to allow moisture that may have been absorbed into the cups to evaporate.

Hearing Protection Performance Information

The maximum of sound attenuation one gets when wearing hearing protection devices is limited by human body and bone conduction mechanisms. Even though a particular device may provide outstanding values of noises attenuation, the actual noise reductions may be less because the noise surrounding the head and body bypasses the hearing protector and is transmitted through tissue and bone pathways to the inner ear.

The term “double hearing protection” is misleading. The attenuation provided from any combination earplug and earmuff is not equal to the sum of their individual attenuation values.

V. Medical Surveillance

5.1 Notification

Upon identification of an employee whose 8-hour TWA equals or exceeds 80 dBA, the Office of Health and Safety will recommend to the employee's Supervisor, in writing, of the need to enroll the employee in the Hearing Conservation Medical Surveillance Program. It will be the responsibility of the Supervisor to enroll the employee in the Hearing Conservation Medical Surveillance Program. It will be the responsibility of the Supervisor to enroll the employee in the Hearing Conservation Medical Surveillance Program.

In work locations where either through administrative or engineering controls, noise levels are found to have fallen such that the employee's 8-hour TWA is below 80dBA, the Office of

Health and Safety will notify the employee's Supervisor, by memo, that the employees working in that area are no longer required to be enrolled in the Hearing Conservation Program.

Any personnel experiencing difficulty in wearing assigned hearing protection (i.e., irritation of the canals, pain) will be advised to immediately report this to their supervisor and make arrangements for professional evaluation as soon as possible.

5.2 Audiometric Testing

The office of Health and Safety has the responsibility for administering the Audiometric Testing Program portion of the Hearing Conservation Program. The object of the audiometric testing program is to identify workers who are beginning to lose their hearing and to intervene before the hearing loss becomes worse. Audiometric testing will be provided to all employees with exposure to noise levels of 80 dBA or greater. Annual retesting will be performed for all personnel enrolled in the Hearing Conservation Medical Surveillance Program.

VI. Training

The training and education program will provide information about the adverse effects of noise and how to prevent noise-induced hearing loss. At a minimum, all training will cover the following topics:

- Noise-induced hearing loss;
- Recognizing hazardous noise;
- Symptoms of overexposure to hazardous noise;
- Hearing protection devices: advantages and limitations;
- Selection, fitting, use, and maintenance of hearing protection devices;
- Explanation of noise measurement procedures; and
- Hearing conservation program requirements.

Employees will be provided with copies of the OSHA noise standard (29 CFR § 1910.95) and other handouts describing Millwright Sites LLC's Hearing Conservation Program.

Employees shall be encouraged to use hearing protective devices when they are exposed to hazardous noise during activities at home; e.g., from lawn mowers, chain saws, etc.

All personnel identified for inclusion in the Hearing Conservation Program should receive a minimum of one hour of initial instruction in the requirements of the program. Ideally, this will be done when hearing protection is dispensed. Appropriate refresher training will be provided annually thereafter and will be provided by the immediate supervisor. Supervisors will be provided annual training by the Office of Health and Safety.

Supervisors and exposed workers must understand the adverse effects of noise and how to prevent noise-induced hearing loss. Each exposed worker and supervisor should know the following:

- Noise exposure may result in permanent damage to the auditory system and there is no medical or surgical treatment for this type of hearing loss. Though the use of a hearing aid may provide some benefit, normal hearing will not be restored. Many people don't realize loud sounds can cause hearing loss. Furthermore, in its initial stages, the person may not notice a problem since noise-induced hearing loss is invisible, painless, and occurs in the high frequencies. It is dangerous to ignore the temporary characteristics of noise-induced hearing loss (such as ringing or buzzing in the ears, excessive fatigue, etc.)
- Each person should know how to recognize hazardous noise even if a noise survey has not been conducted and/or warning signs posted. Recognizing and understanding the adverse effects of off-duty noise exposures is also important. The best rule to follow is: "If you have to shout at arms length (approximately three feet) to talk face-to-face, you are probably being exposed to hazardous levels of noise."
- Preventing noise-induced hearing loss is accomplished by reducing both the time and intensity of exposure. Reducing exposure time is accomplished by avoiding any unnecessary exposure to loud sound. Reducing intensity is usually accomplished by wearing personal hearing protection. Each person must be able top properly wear and care for the particular type of hearing protection selected. Speech communication is difficult in high intensity noise. However, most people don't realize it's easier to understand speech if hearing protection is worn in a hazardous noise environment. Hearing protection reduces the noise and the level of speech, resulting in a more favorable listening level. Hearing protection reduces the intensity of frequencies above the speech range, thus reducing the noise and accentuating speech. People who claim wearing hearing protection makes it difficult to hear speech are probably in noise levels less than 85 dBA or have already developed a hearing loss.
- Each person must know how to tell if they have been overexposed to loud sound. Overexposure may occur even while wearing hearing protection. Earplugs and/or earmuffs alone may not be enough protection. Each time a temporary threshold shift (TSS) occurs, a certain degree of permanent loss results. The recognizable symptoms of overexposure are described as "dullness in hearing or ringing in the ears."

VII. Program Evaluation

Periodic program evaluations will be conducted to assess compliance with federal and state regulations and Millwright Sites LLC's Program requirements. Both the monitoring and audiometric testing portions of Millwright Sites LLC's Hearing Conservation Program will be reviewed annually to assure quality and effectiveness.

An evaluation of the Program, including wearer acceptance, appraisal of protection afforded, and field audits of hearing protection use and record keeping will be conducted at least annually. Items to be considered include:

- Standard operating procedures;
- Training records and course content for supervisors and employees;
- Maintenance of hearing protection
- Field audits of hearing protection device use; and
- Review of recorded threshold shifts on the OSHA log.

The finding of the program evaluation will be documented, and this documentation will list plans to correct faults in the program and set target dates for the implementation of the plans.

VIII. Record keeping

Hearing Conservation Program records will include the following:

- Medical evaluation and audiograms;
- Training records;
- Hearing Conservation Program Manual and Standard Operating Procedures;
- Program evaluations.

All non-medical records (such as work area and equipment surveys) will be maintained for a period of five years. Results of hearing tests and medical evaluation performed for hearing conservation purposed as well as noise exposure documentation shall be recorded and shall be a permanent part of an employee's health record.

All personnel who routinely work in designated hazardous noise areas shall be identified and a current roster of such personnel shall be maintained and by the Office of Health and Safety, and updated periodically.

References

American Conference of Governmental Industrial Hygienists, Threshold Limit Values and Biological Exposure Indices, Physical Agents, Noise (*current edition).*

Berger, E. H., et al., Ed., Noise & Hearing Conservation Manual (4th ed.), Akron, OH: American Industrial Hygiene Association, 1986.

NIOSH, A Practical Guide to Effective Hearing Conservation Programs in the Workplace, September 1990.

OSHA, General Industry Standard, 29 CFR §1910.95, "Occupational Noise Exposure."

Respiratory Protection Program

Introduction

It is the policy of Millwright Sites LLC to provide employees with a safe and healthful working environment. This is accomplished by using facilities and equipment that have all feasible safeguards incorporated into their design. When effective engineering controls are not feasible, or when they are being initiated, respiratory protection shall be used to ensure personnel protection.

This program does not apply to contractors. Contractors are responsible for providing their own respiratory protection programs and respiratory protective equipment.

Responsibilities

Safety Department

The Safety Department is responsible for establishing and maintaining a respiratory protection program. The Safety Department will implement a respiratory protection program which is designed and organized to ensure respirators are properly selected, used, and maintained by Millwright Sites LLC's personnel, and to meet federal regulatory standards (29 CFR 1910.134) and industry accepted standards (ANSI).

The Safety Department is also responsible fore evaluating those tasks for which respiratory protection is thought to be necessary, determining the degree of hazard posed by the potential exposure, determining whether engineering or administrative controls are feasible, and specifying which respiratory device is to be used at each task. In addition, the Safety Department will train personnel in the selection and use of respiratory protective devices, conduct qualitative and qualitative fit testing, and issue necessary protective devices.

The Safety Department is also charged with establishing medical evaluation and surveillance procedures and reviewing the health status of all personnel who may be required to wear respiratory protective equipment in the completion of their assigned tasks.

Supervisors

Supervisors will ensure each employee under his or her supervision using a respirator has received appropriate training in its use and an annual medical evaluation. Supervisors will ensure the availability of appropriate respirators and accessories, provide adequate storage facilities, and encourage proper respirator equipment maintenance. Supervisors must be aware of tasks requiring the use of respiratory protection, and ensure all employees engaged in such work use the appropriate respirators at all times.

Respirator Wearers

It is the responsibility of each respirator wearer to wear his/her respirator when and where required and in the manner in which they were trained. Respirator wearers must report any malfunctions of the respirator to his/her supervisor immediately. The respirator wearer must also guard against mechanical damage to the respirator, clean the respirator as instructed, and store the respirator in a clean, sanitary location.

Others

Personnel, such as employees, inspectors, and visitors, who must enter an area where the use of respiratory protective equipment is required, even when their stay time in the area may be 15 minutes or less, shall be provided with and use appropriate equipment, including instructions regarding use and limitations. Personnel shall be fit tested and medically qualified to wear the respirator being issued prior to entry to the site.

Contractors are required to develop and implement a respiratory protection program for their employees who must enter into or work in areas where exposure to hazardous materials cannot be controlled or avoided. This program must meet OSHA regulations and include issuance of respirators, medical evaluations, fit testing, and training.

Medical Evaluation

The Safety Department initially, and periodically thereafter, makes a determination as to whether or not an employee can wear the required respirator without physical or psychological risk. Based on the overall health of the individual and special medical tests (pulmonary function studies, EKG, etc.) as appropriate, the examining physician determines whether or not the individual will be restricted from wearing respiratory protective equipment. If a medical restriction is applied, the employee, his/her supervisor, and the Safety Department are formally notified of the restriction.

Specific medical tests and procedures will be determined by the Safety Department and will be in accordance with OSHA medical surveillance requirements and/or NIOSH recommendations.

Selection and Use of Respiratory Protective Devices

Respirator Use

Respiratory protection is authorized and issued for the following personnel:

- Workers in areas known to have contaminant levels requiring the use of respiratory protection or in which contaminant levels requiring the use of respiratory protection may be created without warning (e.g., emergency purposes such as hazardous material spill responses).
- Workers performing operations documented to be health hazards and those unavoidably required to be in the immediate vicinity where similar levels of contaminants are generated.
- Workers in suspect areas or performing operations suspected of being health hazards but for which adequate sampling data has not been obtained.

Respirator Use for Biohazards

Respirators for use in areas where biohazards are used or stored must be selected based on a review of the laboratory procedures, protocols, biohazardous agents proposed for use, etc. The Safety Department will conduct a risk assessment and determine the appropriate Biosafety Level for the laboratory and the corresponding level of personal protective equipment required.

Respirator Selection

Selection of the proper respirator(s) to be used in any work area or operation at Millwright Sites LLC is made only after a determination has been made as to the real and/or potential exposure of employees to harmful concentrations of contaminants in the workplace atmosphere. This evaluation will be performed prior to the start of any routine or non-routine tasks requiring respirators. Respiratory protective devices will be selected by the Safety Department, using the latest ANSI, OSHA, and NIOSH guidelines.

The following items will be considered in the selection of respirators:

- Effectiveness of the device against the substance of concern;
- Estimated maximum concentration of the substance in the work area;
- General environment (open shop or confined space, etc.)
- Known limitations of the respiratory protective device;
- Comfort, fit, and worker acceptance; and
- Other contaminates in the environment or potential for oxygen deficiency.

Supervisors must contact the Safety Department prior to non-routine work which may expose workers to hazardous substances or oxygen deficient atmospheres. Examples of work which may require the use of respirators includes, but are not limited to:

- Asbestos abatement activities;
- Abrasive blasting;
- Cutting or melting lead or stripping lead-based paints from surfaces;
- Welding or burning;
- Painting, especially with epoxy or organic solvent coatings;
- Using solvents, thinners, or degreasers;
- Any work which generates large amounts of dust;
- Working in a confined space;
- Using formaldehyde to decontaminate a space; and
- Bioaerosols.

A review of the real and/or potential exposures is made at least annually to determine if respiratory protection continues to be required, and if so, whether the previously chosen respirators still provide adequate protection.

Types of Respirators

Air-Purifying Respirator

These respirators remove air contaminants by filtering, absorbing, or chemical reaction with the contaminants as they pass through the respirator canister or cartridge. This respirator is to be used only where adequate oxygen (19.5 to 23.5 percent by volume) is available.

Air-purifying respirators can be classified as follows:

- Particulate removing respirators, which filter out dusts, fibers, fumes, and mists. These respirators may be single-use disposable respirators or respirators with replacement filters. ***NOTE:*** Surgical masks do not provide protection against air contaminants. They are never to be used in place of an air-purifying respirator. They are for medical use only.
- Gas and vapor removing respirators, which remove specific individual contaminants or a combination of contaminants by absorption, adsorption, or by chemical reaction. Gas masks and chemical-cartridge respirators are examples of gas and vapor removing respirators.
- Combination particulate/gas and vapor removing respirators, which combine the respirator characteristics of both kinds of air purifying respirators.

Supplied-Air Respirators

These respirators provide breathing air independent of the environment. Such respirators must be used when the contaminant has insufficient odor, taste, or irritating warning properties, or when the contaminant is of such high concentration or toxicity that an air-purifying respirator is inadequate.

Supplied air respirators, also called airline respirators, are classified as follows:

- Demand. This respirator supplies air to the user on demand (inhalation) which creates a negative pressure within the facepiece. Leakage into the facepiece may occur if there is a poor seal between the respirator and the user's face.
- Pressure-Demand. This respirator maintains a continuous positive pressure with the facepiece, thus preventing leakage into the facepiece.
- Continuous Flow. This respirator maintains a continuous flow of air through the facepiece and prevents leakage into the facepiece.

Self-Contained Breathing Apparatus (SCBA)

This type of respirator allows the user complete independence from a fixed source of air and offers the greatest degree of protection but is also the most complex. Training and practice in its use and maintenance is essential. This type of device will be used in emergency situations only.

Identification of Respirator Cartridges and Gas Mask Canisters

Respirator cartridges and canisters are designed to protect against individual or a combination of potentially hazardous atmospheric contaminants, and are specifically labeled and color-coded to indicate the type and nature of protection they provide.

The NIOSH approval label on the respirator will also specify the maximum concentration of contaminant(s) for which the cartridge or canister is approved. For example, a label may read:

DO NOT WEAR IN ATMOSPHERES IMMEDIATELY DANGEROUS TO LIFE. MUST BE USED IN AREAS CONTAINING AT LEAST 20 PERCENT OXYGEN. DO NOT WEAR IN ATMOSPHERES CONTAINING MORE THAN ONE-TENTH PERCENT ORGANIC VAPORS BY VOLUME. REFER TO COMPLETE LABEL ON RESPIRATOR OR CARTRIDGE CONTAINER FOR ASSEMBLY, MAINTENANCE, AND USE.

Warning Signs of Respirator Failure

Particulate Air-Purifying

When breathing difficulty is encountered with a filter respirator (due to partial clogging with increased resistance), the filter(s) must be replaced. Disposable filter respirators must be discarded.

Gas or Vapor Air-Purifying

If, when using a gas or vapor respirator (chemical cartridge or canister), any of the warning properties (e.g., odor, taste, eye irritation, or respiratory irritation) occur, promptly leave the area and check the following:

- Proper face seal;
- Damaged or missing respirator parts; and

- Saturated or inappropriate cartridge or canister.

If no discrepancies are observed, replace the cartridge or canister. If any of the warning properties appear again, the concentration of the contaminates may have exceeded the cartridge or canister design specification. When this occurs an airline respirator or SCBA is required.

Service Life of Air-Purifying Respirator Canisters and Cartridges

The canisters or cartridges of air-purifying respirators are intended to be used until filter resistance precludes further use, or the chemical sorbent is expended as signified by a specific warning property, e.g., odor, taste, etc. New canisters, cartridges, or filters shall always be provided when a respirator is reissued. When in doubt about the previous use of the respirator, obtain a replacement canister or cartridge.

Supplied Air Respirator

When using an airlines respirator, leave the area immediately when the compressor failure alarm is activated or it an air pressure drop is sensed. When using an SCBA leave the area as soon as the air pressure alarm is activated.

Respirator Training

Respirator users and their supervisors will receive training on the contents of Millwright Sites LLC's Respiratory Protection Program and their responsibilities under it. They will be trained on the proper selection and use, as well as the limitations of the respirator. Training also covers how to ensure a proper fit before use and how to determine when a respirator is no longer providing the protection intended.

The Safety Department provides training of respirator wearers in the use, maintenance, capabilities, and limitations of respirators initially upon assignment of personnel to tasks requiring the use of respirators. Retraining is given annually thereafter and only upon successful completion of the medical evaluation.

The training program will include the following:

- Nature and degree of respiratory hazard.
- Respirator selection, based on the hazard and respirator capabilities and limitations.
- Donning procedures and fit tests including hands-on practice.
- Care of the respirator, e.g., need for cleaning, maintenance, storage, and/or replacement.
- Use and limitations of respirator.

Respirator training will be properly documented (Appendix A) and will include the type and model of respirator for which the individual has been trained and fit-tested.

Respirator Fit Testing

A fit test shall be used to determine the ability of each individual respirator wearer to obtain a satisfactory fit with any air-purifying respirator. Both quantitative and qualitative fit tests will be performed. Personnel must successfully pass the fit test before being issued an air-purifying respirator.

No employee is permitted to wear a negative-pressure respirator in a work situation until he or she has demonstrated that an acceptable fit can be obtained. Respirator fitting is conducted initially upon assignment to a task requiring use of a respirator. Refitting is conducted annually thereafter upon successful completion of the respirator training.

Fit testing will be conducted by the Safety Department and the test results will be the determining factor in selecting the type, model, and size of negative-pressure respirator for use by each individual respirator wearer.

Fit Checking

Each time a respirator is donned, the user will perform positive and negative pressure fit checks. These checks are not a substitute for fit testing. Respirator users must be properly trained in the performance of these checks and understand their limitations.

Negative Pressure Check

Applicability/Limitations: This test cannot be carried out on all respirators; however, it can be used on facepieces of air purifying respirators equipped with tight-fitting respirator inlet covers and on atmosphere supplying respirators equipped with breathing tubes which can be squeezed or blocked at the inlet to prevent the passage of air.

Procedure: Close off the inlet opening of the respirator's canister(s), or filter(s) with the palm of the hand, or squeeze the breathing air tube or block its inlet so that it will not allow the passage of air. Inhale gently and hold for at least 10 seconds. If the facepiece collapses slightly and no inward leakage of air into the facepiece is detected, it can be reasonably assumed that the respirator has been properly positioned and the exhalation valve and facepiece are not leaking.

Positive Pressure Check

Applicability/Limitations: This test cannot be carried out on all respirators; however, respirators equipped with exhalation valves can be tested.

Procedure: Close off the exhalation valve or the breathing tube with the palm of the hand. Exhale gently. If the respirator has been positioned, a slight positive pressure will build up inside the facepiece without detection of any outward air leak between the sealing surface of the facepiece and the face.

Qualitative Fit Testing

Federal regulations (29CFR 1910.134) require fit tests of respirators and describe step-by-step procedures. This test checks the subject's response to a chemical introduced outside the respirator facepiece. This response is either voluntary or involuntary depending on the chemical used. Several methods may be used. The two most common are the irritant smoke test, and the odorous vapor test.

Irritant Smoke

The irritant smoke test is an involuntary response test. Air purifying respirators must be equipped with a high efficiency particulate air (HEPA) filter for this test. An irritant smoke, usually either stannic chloride or titanium tetrachloride is directed from a smoke tube toward the respirator. If the test subject does not respond to the irritant smoke, a satisfactory fit is assumed to be achieved. Any response to the smoke indicates an unsatisfactory fit.

The irritant smoke is an irritant to the eyes, skin, and mucous membranes. It should not be introduced directly onto the skin. The test subject must keep his or her eyes closed during the testing if a full facepiece mask is not used.

Odorous Vapor

The odorous vapor test is a voluntary response test. It relies on the subject's ability to detect an odorous chemical while wearing the respirator. Air purifying respirators must be equipped with an organic cartridge or canister for this test. Isoamyl acetate (banana oil) is the usual test.

An isoamyl acetate-saturated gauze pad is placed near the facepiece-to-face seal of the respirator of the test subject's skin. If the test subject is unable to smell the chemical, than a satisfactory fit is assumed to be achieved. If the subject smells the chemical, the fit is unsatisfactory.

If the subject cannot smell the chemical, the respirator will be momentarily pulled away from the subject's face. If the subject is then able to smell the chemical, a satisfactory fit is assumed. If the subject cannot smell the chemical with the respirator pulled away from the face, this test is inappropriate for this subject, and a different test will be used

This test is limited by the wide variation of odor thresholds among individuals and the possibility of olfactory fatigue. Since it is a voluntary test it depends upon an honest response.

Quantitative Fit Testing

Quantitative fit testing, using the Portacount Plus fit test system, is generally performed on both full-faced and half-face negative pressure respirators. Fit factors are determined by

comparing the particle concentration outside the respirator with the concentration inside the respirator facepiece.

An acceptable fit is achieved when the respirator wearer successfully completes a series of six programmed exercises (normal breathing, deep breathing, moving head up and down, moving head side to side, reading and normal breathing) with a fit factor of 100 or more.

Special Problems

Facial Hair

No attempt is made to fit a respirator on an employee who has facial hair which comes between the sealing periphery of the facepiece and the face, or if facial hair interferes with normal functioning of the exhalation valve of the respirator.

Glasses and Eye/Face Protective Devices

Proper fitting of a respirator protective device facepiece for individuals wearing corrective eyeglasses or goggles may not be established if temple bars or straps extend through the sealing edge of the facepiece. If eyeglasses, goggles, face shield or welding helmet must be worn with a respirator, they must be worn so as not to adversely affect the seal of the facepiece. If a full-facepiece respirator is used, special prescription glasses inserts are available if needed.

Respirator User Cards

The Safety Department will issue Respirator User Cards to workers who have been trained, fitted, and medically evaluated to use respirators. A Respirator User Card will include:

- Name and identification number of the worker.
- The statement: "(name) has been trained, fitted and medically evaluated to use the respirator(s) indicated."
- The type(s), model(s), and size(s) of respirator(s) that the cardholder was issued.
- Expiration date of card.

Recordkeeping

Respirator fit-testing shall be documented and shall include the type of respirator, brand name and model, method of test and test results, test date, and the name of the instructor/testor.

Maintenance and Issuance of Respirators

Maintenance

The maintenance of respiratory protective devices involves a thorough visual inspection for cleanliness and defects (i.e., cracking rubber, deterioration of straps, defective exhalation and inhalation valves, broken or cracked lenses, etc.). Worn or deteriorated parts will be replaced prior to reissue. No respirator with a known defect is reissued for use. No attempt is made to replace components, make adjustment or make repairs on any respirator beyond those recommended by the manufacturer. Under no circumstances will parts be substituted as such substitutions will invalidate the approval of the respirator. Any repair to reducing or admission valves, regulators, or alarms will be conducted by either the manufacturer or a qualified trained technician.

Cleaning of Respirators

All respirators in routine use shall be cleaned and sanitized on a periodic basis. Respirators used non-routinely shall be cleaned and sanitized after each use and filters and cartridges replaced.

Routinely use respirators are maintained individually by the respirator wearer. Replacement cartridges and filters are obtained by contacting the Safety Department.

Cleaning and disinfection of respirators must be done frequently to ensure that skin-penetrating and dermatitis-causing contaminants are removed from the respirator surface. Respirators maintained for emergency use or those used by more than one person must be cleaned after each use by the user.

The following procedure is recommended for cleaning and disinfecting respirators:

- Remove and discard all used filters, cartridges, or canisters.
- Wash facepiece and breathing tube in a cleaner-disinfectant solution. A hand brush may be used to remove dirt. Solvents which can affect rubber and other parts shall not be used.
- Rinse completely in clean, warm water.
- Air dry in a clean area in such a way as to prevent distortion.
- Clean other respirator parts as recommended by the manufacturer.
- Inspect valves, head straps, and other parts to ensure proper working condition.
- Reassemble respirator and replace any defective parts.
- Place in a clean, dry plastic bag or other suitable container for storage after each cleaning and disinfection.

Issuance of Respirators

Respiratory protective equipment shall not be ordered, purchased, or issued to personnel unless the respirator wearer has received respirator training and a fit test. New employees

who require respiratory protective equipment, must be placed into the respirator program before being issued equipment.

The Safety Department provides various types of devices. These facepieces have a variety of canisters that may be worn with them; hence, the canisters and facepieces are packaged separately. At the time of issue the appropriate canister is determined, based on the user's needs, and is issued with the appropriate facepiece. In addition, disposable respirators with filter ratings N-95 and N-100 ratings are available for use under appropriate conditions.

Storage

After inspection, cleaning, and any necessary minor repairs, store respirators to protect against sunlight, heat, extreme cold, excessive moisture, damaging chemicals or other contaminates.

Respirators placed at stations and work areas for emergency use shall be stored in compartments built for that purpose, shall be quickly accessible at all times and will be clearly marked. Routinely used respirators, such as half-mask or full-face air-purifying respirators, shall be placed in sealable plastic bags. Respirators may be stored in such places as lockers or tool boxes only if they are first placed in carrying cases or cartons. Respirators shall be packed or stored so that the facepiece and exhalation valves will rest in a normal position and not be crushed. Emergency use respirators shall be stored in a sturdy compartment that is quickly accessible and clearly marked.

Program Surveillance

The ANSI Z88.2-1980 document entitled "Practices for Respirator Protection" specifies: "Section 3.5.15 Respirator Program Evaluation. An appraisal of the effectiveness of the respirator program shall be carried out at least annually. Action shall be taken to correct defects found in the program."

The evaluation of the Respirator Program will include investigating wearer acceptance of respirators, inspecting respirator program operation, and appraising protection provided by the respirator.

Evidence of excessive exposure of respirator wearers to respiratory hazards will be followed up by investigation to determine why inadequate respiratory protection was provided. The findings of the respirator program evaluation will be documented, and this documentation will list plans to correct faults in the program and set target dates for the implementation of the plans. These evaluations will be conducted at least annually.

Recordkeeping

The following records shall be developed and maintained for Millwright Sites LLC's Respirator Program:

- Medical Evaluations
- Training Records

- Respirator Program Manual, IHP, and SOPs
- Hazard Evaluations (air sampling results, surveys, respirator selection records)
- Bioharazd Risk Assessments
- Fit Test Records
- Program Evaluations

References

American National Standards Institute: American National Standard Practices for Respiratory Protection, ANSI Z88.2, New York, NY: American National Standards Institute, 1989.

American National Standards Institute: American National Standard For Respiratory Protection- Respirator Use- Physical Qualification for Personnel, ANSI Z88.6, New York, NY: American National Standards Institute, 1984.

Colton, Craig, et al., Respiratory Protection: A Manual and Guideline, 2nd Ed., Akron, OH: American Industrial Hygiene Association, 1991

Compressed Gas Association: Commodity Specification for Air. (ANSI/CGA G-7.1), Arlington, VA: Compressed Gas Association, Inc., 1989.

OSHA Standard, 29 CFR 1910.134, "Respiratory Protection."

Respirator Training Certification

I hereby certify that I have been trained in the proper use and limitations of the respirator issued to me. The training included the following:

- Instruction on putting on, fitting, testing and wearing the respirator.
- Instruction on inspection, cleaning, and maintaining the respirator.
- Explanation of dangers related to misuse.
- Instructions on emergency situations.

I further certify that I understand the use, care, and inspection of the respirator and have tested and worn the unit.

Date: _____

Signed: _____ SSN: _____

Respirator Type issued: _____

Training Coordinator: _____

OSHA Respirator Medical Evaluation Questionnaire

Appendix C to 29 CFR 1910.134 (Mandatory)

To the employer: Answers to questions in Section 1, and to question 9 in Section 2 of Part A, do not require a medical examination.

To the employee: Can you read (circle one): Yes/No

Your employer must allow you to answer this questionnaire during normal working hours, or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

Part A. Section 1. (Mandatory) The following information must be provided by every employee who has been selected to use any type of respirator (please print).

1. Today's date: _____
2. Your name: _____
3. Your age (to nearest year): _____
4. Sex (circle one): Male/Female
5. Your height: _____ ft. _____ in.
6. Your weight: _____ lbs
7. Your job title: _____
8. A phone number where you can be reached by the health care professional who reviews this questionnaire (include the Area Code):
   _____
9. The best time to phone you at this number: _____
10. Has your employer told you how to contact the health care professional who will review will review this questionnaire (circle one): Yes/No
11. Check the type of respirator you will use (you can check more than one category):
    a. ___ N,R, or P disposable respirator (filter-mask, non-cartridge type only).
    b. ___ Other type (for example, half- or full-facepiece type, powered-air purifying, supplied-air, self-contained breathing apparatus)
12. Have you worn a respirator (circle one): Yes/No
    If "yes," what type(s): _____

Part A. Section 2. (Mandatory) Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator (please circle "yes" or "no")

1. Do you *currently* smoke tobacco, or have you smoked tobacco in the last month: Yes/No
2. have you *ever* had any of the following conditions?
    a. Seizures (fits): Yes/No
    b. Diabetes (sugar disease): Yes/No

c. Allergic reactions that interfere with your breathing: Yes/No
d. Claustrophobia (fear of closed-in places): Yes/No
e. Trouble smelling odors: Yes/No

3. Have you *ever* had any of the following pulmonary or lung problems?
    a. Asbestosis: Yes/No
    b. Asthma: Yes/No
    c. Chronic bronchitis: Yes/No
    d. Emphysema: Yes/No
    e. Pneumonia: Yes/No
    f. Tuberculosis: Yes/No
    g. Silicosis: Yes/No
    h. Pneumothorax (collapsed lung): Yes/No
    i. Lung cancer: Yes/No
    j. Broken ribs: Yes/No
    k. Any chest injuries or surgeries: Yes/No
    l. Any other lung problem that you've been told about: Yes/No

4. Do you *currently* have any of the following symptoms for pulmonary or lung illness?
    a. Shortness of breath: Yes/No
    b. Shortness of breath when walking fast on level ground or walking up a slight hill or incline: Yes/No
    c. Shortness of breath when walking with other people at an ordinary pace on level ground: Yes/No
    d. Have to stop for breath when walking at your own pace on level ground: Yes/No
    e. Shortness of breath when washing or dressing yourself: Yes/No
    f. Shortness of breath that interferes with your job: Yes/No
    g. Coughing that produces phlegm (thick sputum): Yes/No
    h. Coughing that wakes you early in the morning: Yes/No
    i. Coughing that occurs mostly when you are lying down: yes/No
    j. Coughing up blood in the last month: Yes/No
    k. Wheezing: Yes/No
    l. Wheezing that interferes with your job: Yes/No
    m. Chest pain when you breathe deeply: Yes/No
    n. Any other symptoms that you think may be related to lung problems: Yes/No

5. Have you *ever* had any of the following cardiovascular or heart problems?
    a. Heart attack: Yes/No
    b. Stoke: Yes/No
    c. Angina: Yes/No
    d. Heart failure: Yes/No
    e. Swelling in your legs or feet (not caused by walking): Yes/No
    f. Heart arrhythmia (heart beating irregularly): Yes/No
    g. High blood pressure: Yes/No
    h. Any other heart problem that you've been told about: Yes/No

6. Have you *ever* had any of the following cardiovascular or heart symptoms?
    a. Frequent pain or tightness in your chest: Yes/No
    b. Pain or tightness in your chest during physical activity: Yes/No
    c. Pain or tightness in your chest that interferes with your job: Yes/No
    d. In the past two years, have you noticed your heart skipping or missing a beat: Yes/No
    e. Heartburn or indigestion that is not related to eating: yes/No
    f. Any other symptoms that you think may be related to heart or circulation problems: Yes/No
7. Do you *currently* take medication for any of the following problems?
    a. Breathing or lung problems: Yes/No
    b. Heart trouble: Yes/No
    c. Blood pressure: Yes/No
    d. Seizures (fits): Yes/No
8. If you've used a respirator, have you *ever* had any of the following problems? (If you've never used a respirator, check the following space and go to question 9:)
    a. Eye irritation: Yes/No
    b. Skin allergies or rashes: Yes/No
    c. Anxiety: Yes/No
    d. General weakness or fatigue: Yes/No
    e. Any other problems that interferes with your use of a respirator: Yes/No
9. Would you like to talk to the health care professional who will review this questionnaire about your answers to the questionnaire: Yes/No

Questions 10 to 15 below must be answered by every employee who has been selected to use either a full-facepiece respirator or a self-contained breathing apparatus (SCB). For employees who have been selected to use other types of respirators, answering these questions is voluntary.

10. Have you *ever* lost vision in either eye (temporarily or permanently): Yes/No
11. Do you *currently* have any of the following vision problems?
    a. Wear contact lenses: Yes/No
    b. Wear glasses: Yes/No
    c. Color blind: Yes/No
    d. Any other eye or vision problem: Yes/No

    (1910.134 (11) is corrected at 63 FR 20098, April 23,1998.)
12. Have you *ever* had an injury to yours ears, including a broken ear drum: Yes/No
13. Do you *currently* have any of the following hearing problems?
    a. Difficulty hearing: Yes/No
    b. Wear a hearing aid: Yes/No
    c. Any other hearing or ear problem: Yes/No
14. Have you *ever* had a back injury: Yes/No
15. Do you *currently* have any of the following musculoskeletal problems?
    a. Weakness in any of your arms, hands, legs, or feet: Yes/No
    b. Back pain: Yes/No
    c. Difficulty fully moving your arms and legs: Yes/No
    d. Pain or stiffness when you lean forward or backward at the waist: Yes/No

e. Difficulty fully moving your head up or down: Yes/No
f. Difficulty fully moving your head side to side: Yes/No
g. Difficulty bending at your knees: Yes/No
h. Difficulty squatting to the ground: Yes/No
i. Climbing a flight of stairs or a ladder carrying more than 25 lbs: Yes/No
j. Any other muscle or skeletal problem that interferes with using a respirator: Yes/No

Part B: Any of the following questions, and other questions not listed, may be added to the questionnaire at the discretion of the health care professional who will review the questionnaire.

1. In your present job, are you working at high altitudes (over 5,000 feet) or in a place that has lower than normal amounts of oxygen: Yes/No

a. If "yes" do you have feelings of dizziness, shortness of breath, pounding in you chest, or other symptoms when you're working under these conditions: Yes/No
2. At work or at home, have you ever been exposed to hazardous solvents, hazardous airborne chemicals (e.g., gases, fumes, or dust), or have you come into skin contact with hazardous chemicals: Yes/No

a. If "yes," name the chemical if you know them: _____
b. _____

3. have you ever worked with any of the materials, or under any of the conditions, listed below:

a. Asbestos: Yes/No
b. Silica (e.g., in sandblasting): Yes/No
c. Tungsten/cobalt (e.g., grinding or welding this material): Yes/No
d. Beryllium: Yes/No
e. Aluminum: Yes/No
f. Coal (for example, mining): Yes/No
g. Iron: Yes/No
h. Tin: Yes/No
i. Dusty environments: Yes/No
j. Any other hazardous exposures: Yes/No
    i. If "yes," describe these exposures: _____
    ii. _____

4. List any second jobs or side businesses you have: _____
5. List your previous occupations: _____
6. List your current and previous hobbies: _____

7. Have you been in the military services" Yes/No
a. If "yes," were you exposed to biological or chemical agents (either in training or combat): Yes/No
8. Have you ever worked on a HAZMAT team: Yes/No
9. Other than medications for breathing and lung problems, heart trouble, blood pressure, and seizures mentioned earlier in this questionnaire, are you taking any other medications for any reason (including over-the-counter medications: Yes/No
a. If "yes," name the medications if you know them:

_____

10. Will you be using any of the following items with your respirator(s)?
11. HEPA Filters: Yes/No
12. Canisters (for example, gas masks): Yes/No
13. Cartridges: Yes/No
14. How often are you expected to use the respirator(s) (circle "yes" or "no" for all answers that apply to you)?
15. Escape only (no rescue): Yes/No
16. Emergency rescue only: Yes/No
17. Less than 5 hours *per week*: Yes/No
18. Less than 2 hours *per day*: Yes/No
19. 2 to 4 hours *per day*: Yes/No
20. Over 4 hours *per day*: Yes/No
21. During the period you are using the respirator(s), is your work effort:
22. *Light* (less than 200 kcal per hour): Yes/No
    i. If: "yes," how long does this period last during the average shift:
    ii. ___ hrs. ___ mins.
    iii. Examples of light work effort are *sitting* while writing, typing, drafting, or
    iv. performing light assembly work; or *standing* while operating a drill press
    v. (1-3 lbs) or controlling machines.
23. *Moderate* (200 to 350 kcal per hour): Yes/No
    i. If "yes," how long does this period last during the average shift:
    ii. ___ hrs. ___ mins.
    iii. Examples of moderate work effort are *sitting* while nailing or filing; *driving*
    iv. a truck or a bus in urban traffic; *standing* while drilling, nailing, performing
    v. assembly work; or transferring a moderate load (about 35 lbs.) at trunk
    vi. level; *walking* on a level surface about 2 mph or down a 5-degree grade at
    vii. about 3 mph; or *pushing* a wheelbarrow with a heavy load (about 100 lbs.)
    viii. on a level surface.
24. *Heavy* (above 350 kcal per hour): Yes/No
    i. If "yes," how long does this period last during the average shift:
    ii. ____ hrs. ____ mins.
    iii. Examples of heavy work are *lifting* a heavy load (about 50 lbs.) from the
    iv. floor to your waist or shoulder; *working* on a loading dock; *shoveling*;
    v. *standing* while bricklaying or chipping castings; *walking* up an 8-degree
    vi. grade about 2 mph; *climbing* stairs with a heavy load (about 50 lbs.)

25. Will you be wearing protective clothing and/or equipment (other than the respirator) when you're using your respirator: Yes/No
    i. If "yes," describe this protective clothing and/or equipment:
    ii. _____
    iii. _____

26. Will you be working under hot conditions (temperature exceeding 77º F): Yes/No
27. Will you be working under humid conditions: Yes/No
28. Describe the work you'll be doing while you're using your respirator(s):
    _____
    _____

29. Describe any special or hazardous conditions you might encounter when you're using your respirator(s) (for example, confined spaces, life-threatening gases):

a. _____

30. Provide the following information, if you know it, for each toxic substance that you'll be exposed to when you're using your respirator(s):

a. Names of the first toxic substance:
   _____
b. Estimated maximum exposure level per shift:
   _____
c. Duration of exposure per shift:
   _____
d. Name of second toxic substance:
   _____
e. Estimated maximum exposure level per shift:
   _____
f. Duration of exposure per shift:
   _____
g. Name of third toxic substance:
   _____
h. Estimated maximum exposure level per shift:
   _____
i. Duration of exposure per shift:
   _____

j. The name of any other toxic substances that you'll be exposed to while using your
k. respirator:
   _____
l. _____
m. _____

31. Describe any special responsibilities you'll have while using your respirator(s) that may affect the safety and well-being of others (for example, rescue, security):

a. _____

b. (§ 1910.134, App C, added at 63 FR 1270, Jan 8,1998, eff. Apr. 8, 1998.)

Confined Space Entry Program

Purpose

This program sets out procedures to be followed to protect the health and safety of employees entering confined spaces.

Roles and Responsibilities

The role and responsibility that Millwright Sites LLC's plays in the Confined Space Entry Programs of its clients is based on the clients written Confined Space Entry Program. As necessary, Millwright Sites LLC's Safety Manager will work with the Client's Safety Manager to survey work areas for confined spaces. Our client , if necessary, will appoint assessment teams or hire consultants to evaluate the hazards of specific spaces prior to the job being started.

Employees

Prior to the job being started, employees selected by Millwright Sites LLC will be instructed on the clients Confined Space Entry Program and confined space trained.

The following are rules that the employee's of Millwright Sites LLC orientation in avoiding confined spaces and recognizing confined space hazards;will abide by when working of the clients job locations:

- Receive instruction as part of their initial safety
- Never enter confined spaces without first having received specialized training for confined spaces entrants;
- Never enter a permit-required space without an entry permit, and
- Fully comply with client's procedures for entry of permit-required spaces.

Employees of Millwright Sites LLC will receive a certificate showing successful completion of confined space training as well as a written description of the training program.

Employee Training

Department managers will designate employees within their departments who will serve as entry attendants, and confined space entrants. The entry supervisor will be the Client's own appointed entry supervisor. These employees will receive specialized training in accordance with the OSHA permit space standard (29 CFR § 1910.146). At a minimum, training for employees involved in confined spaces operations will cover:

- The permit system,
- The hazards of the confined spaces in which work will be done,
- The proper use of all equipment needed for safe operations,

- The signs and symptoms indicating exposure to hazards,
- Conditions for exiting the space, and
- Emergency and rescue procedures.

Employees will receive a certificate of training after completing training.

Employees must receive training before they may enter permit spaces. An employee must receive additional confined space training if the employee:

- Is assigned confined space work of a different type than the work for which the employee has received training,
- Is exposed to new hazards as a result of changes in permit space operations, and
- Deviates from procedures or demonstrates some other lack of knowledge about permit space operations.

Employees on confined space entry teams must participate in rescue procedures drills.

Confined Spaces Operation Teams

Entry into permit-required spaces requires employees or contractors to serve as confined space entrants, attendants, and supervisors. The client's department managers are responsible for appointing entry supervisors. Confined space entrants and attendants will be appointed by Millwright Sites LLC The roles that the appointed employees are to serve during permit-required confined-space operations are listed below.

Entry Supervisors

Entry supervisors must ensure that:

- A permit has been issued before workers enter permit-required confined spaces,
- Necessary PPE and safety equipment is used by confined space entrants,
- Participating workers have received required training, and
- Work conditions in the confined space are safe.

Confined Space Attendant

Attendants must remain outside the confined space to:

- Monitor safety conditions,
- Support the work entrants,
- Remain in continuous contact with entrants,
- Respond appropriately to hazards that might threaten confined space entrants, and
- Contact emergency response personnel if necessary.

Attendants must understand the hazards of the confined space and be able to recognize ill effects indicating exposure to hazardous materials. The attendant must keep an exact and accurate count of the workers who have entered and exited the space.

If unsafe conditions arise, the attendant must order all entrants to stop working and to immediately evacuate the space. Attendants also are responsible for alerting the entry supervisor and for calling 911 to obtain the assistance of emergency response personnel.

Confined Space Entrants

Workers entering confined spaces must be familiar with the hazards presented by the space and must be able to recognize symptoms that could signal the effects of toxic or oxygen-deficient atmospheres. In addition, entrants must be trained in the use of any necessary PPE such as breathing apparatus and safety harnesses. During entry into permit-required spaces, entrants must maintain contact with the confined space attendant at all times.

Identifying Permit Spaces

A confined space is defined as any space that has the following characteristics:

- Is large enough for an employee to enter the space to perform assigned work.
- Has limited or restricted means for entry or exit. (NOTE: Most confined spaces have limited or restricted means for entry or exit because they are small in size and are difficult to move through easily. However, in some cases, openings may be very large. For example, an excavation may have a large opening, but may be difficult for employees to exit because of its depth.)
- If not designed for continuous employee occupancy. (NOTE: Most confined spaces are not designed for employees to enter and work on a routine basis. They may be designed to store a product, enclose materials and process, or transport products or substances.)

Examples of confined spaces include sewers, electrical vaults, steam tunnels, mechanical rooms, or other similar types of enclosures.

Non-Permit and Permit-Required Spaces

All confined spaces are considered "permit-required" unless an evaluation by Safety Department personnel demonstrates otherwise. For purposes of Millwright Sites LLC confined spaces program, "non-permit confined space," and "permit-required confined space," are defined as follows:

Non-permit confined space means a confined space that does not contain, nor has the potential to contain, any hazard capable of causing death or serious physical harm.

Permit-required confined space (also known as a "permit space") means a confined space that has one or more of the following characteristics:

- Contains or has a potential to contain a hazardous atmosphere.

- Contains a material that has the potential for engulfing an entrant.
- Has an internal configuration that might allow an entrant to become trapped or asphyxiated---e.g., inwardly-converging walls, a floor that slopes downward or tapers to a smaller cross-section, or materials storing or handling facilities that could release materials that could engulf the entrant.
- Contains any other recognized serious safety or health hazard.

Identifying Confined-Space Hazards

Once a space has been identified as a confined space, any hazards present with the space must be identified. Major categories of confined-space hazards include:

- **Oxygen-deficient atmospheres.** An atmosphere containing less than 19.5 percent oxygen is considered oxygen-deficient. There are a number of processes—e.g., welding, cutting, or brazing—that consume oxygen in a confined space. Oxygen levels also can be reduced as the result of oxygen displacement by other gases.
- **Flammable atmospheres.** Flammable gases, vapors, or dust can become combustible if mixed with air in certain concentrations. Oxygen-enriched atmospheres—i.e., those containing an oxygen concentration greater than 22 percent—also present extreme fire hazards.
- **Toxic atmospheres.** A toxic atmosphere can result from: substances stored in the confined space; work conducted inside the confined space that produces toxic vapors; or toxic fumes produced outside the confined space that migrate into the confined space and accumulate there.
- **Mechanical and physical hazards.** Problems such as rotating or moving mechanical parts or electrical energy sources can create hazards within a confined space.
- **Engulfment hazards.** Materials in or around confined spaces could cause injury or death if allowed to flow over confined space entrants.

Entry into Permit-Required Spaces

Millwright Sites LLC's confined space program includes procedures for three types of entry into permit-required spaces:

- Routine entry,
- Alternate entry procedures, and
- Emergency entry for rescue.

Procedures governing each type of entry situation are described below.

Routine Entry

Routine entries are those carried out under non-emergency conditions.

A permit is required for each routine entry into a permit space. The entry supervisor is responsible for completing the confined space entry permit. Three-part forms are available from the Safety Department. The entry supervisor signs the permit only after that individual has determined that all safety precautions have been taken. If a hot work permit is necessary, it must be submitted to the entry supervisor for approval at the same time that the confined space entry permit is submitted.

After the confined space entry permit has been approved, the entry supervisor must review the permit with the confined space entry team. The supervisor should point out any special restrictions or conditions imposed by the permit.

After work is completed, or if conditions change inside the permit space, the permit is canceled. Any unusual occurrences must me noted on the permit by the entry supervisor. The top copy of the permit is returned to the Safety Department and the middle copy is given to the department manager. The bottom copy of the permit is reserved for medical care providers in the event that an employee is injured during the confined space operations.

Alternate Entry

Alternate entries are those carried out in accordance with OSHA's alternate entry procedures for permit-required spaces (29 CFR §1910.146(c)(5) (ii)).

Alternate entry procedures can be used in permit spaces containing only atmospheric hazards that can be reduced and controlled though ventilation measures. Continuous forced air ventilation must reduce atmospheric hazards to:

- Less than 5 percent of the lower flammability limit for flammable gases and vapors,
- Less than 5 percent of the time weighted average permissible exposure limit for toxic gases, and
- Less than 5 percent of the lower flammability limit for combustible dusts.

Contact the Safety Department for information on how these thresholds apply to specific confined entry situations.

An alternate entry certificate specifying the conditions of entry must be approved and signed by an entry supervisor. A copy of the certificate must be posted outside the confined space during the confined space operations.

If the conditions under OSHA's alternate entry procedures are met, no special personal protective equipment, other than hard hats, work boots, work gloves, and eye protection, generally would be necessary. No attendant is needed. However, only individuals trained as confined space entrants can enter and perform work inside the permit space.

Emergency and Rescue Entry

Individuals who have been trained in confined space rescue procedures may attempt the rescue of workers who become trapped or incapacitated within a confined space.

If possible, emergency rescues should be made without entering the permit space. All entrants must wear harnesses or wristlets to rescue lines.

If employees become trapped or incapacitated inside a confined space or if emergency conditions arise, entry attendants should immediately call emergency response personnel by dialing on the phone 911 or on a cell phone 611. The attendant should try to use rescue lines to remove the confined space entrant(s) from the space. If the attendant is unable to extract the confined space entrant(s), the attendant6 should wait for emergency response personnel to arrive. While waiting for the emergency response personnel to arrive, the entry attendant should take any necessary steps to prepare for the rescue—e.g., retesting the atmosphere or increasing ventilation. Entry attendants and supervisors also must be prepared to furnish applicable Material Safety Data Sheets (MSDSs) and atmospheric testing results to emergency responders.

Preparing the Confined Space for Entry

Before a confined space may be entered, confined space entry teams must take the following steps to prepare for entry:

- Test the confined space for oxygen content, flammability, and the presence of toxic gases (see "Testing Confined Spaces Atmospheres," below).
- Post warning signs and install barriers necessary to isolate the space from other operations and to prevent inadvertent entry into the space by untrained employees.
- Install any lockout/tagout devices necessary to prevent accidental start up or energizing of equipment or power sources within the confined space.
- Position any necessary tools, safety equipment, or monitoring equipment near the confined space.
- Purge or ventilate the confined space atmosphere as necessary.
- Take steps such as blanking and bleeding, line breaking, and blinding to prevent materials from flowing into the permit space.

Testing Confined Spaces Atmospheres

The atmospheres of confined spaces must be tested for oxygen content, flammability, and the presence of toxic gases before employees are allowed to enter. Testing will be perform only by qualified employees or consultants.

Permit space atmospheric tests must always be conducted in the following sequence:

1. oxygen content,
2. flammability,
3. levels of toxic materials.

Specific procedures on the use of oxygen meters, combustible gas indicators, photoionzation detectors, sampling tubes, and other monitoring equipment can be found in documentation maintained by the Safety Department for each piece of equipment.

After obtaining reliable tests results, confined space entry teams must follow procedures outlined below to eliminate or mitigate potentially hazardous atmospheres:

- If tests show that oxygen content is less than 19.5 percent or greater than 21.5 percent, perform additional ventilation. Then, shut off ventilation equipment and re-test the oxygen content.
- If tests for flammable gases or dusts give a reading of more than 10 percent of the LEL for the flammable gas or substance, continue ventilation of the confined space. Then, shut off the ventilation and re-test the atmosphere.
- If tests show a toxic atmosphere is present, no person should be permitted to enter the confined space at a level exceeding the OSHA-specified Permissible Exposure Limits (PELs) unless they are equipped with appropriate personal protective equipment. If the presence of a toxic substance is detected, the entry supervisor must request the substance's MSDS for the Safety Department. This information must be used in assessing the appropriate protective equipment and safety measures to be used in entering the permit space and conducting work.

Safety Equipment

All entrants must wear safety harnesses or wristlets. These must be attached to a rescue line that is secured to a stationary winch on the outside of the space.

Employees involved in confined space entry operations must be provided with, and must wear, appropriate personnel protective equipment—e. g., gloves, hard hat, boots, and chemical protective clothing. If respiratory protection is needed, only positive-pressure, self-contained breathing apparatus (SCBA) or positive-pressure demand-supplied air respirators with 15-minute escape bottles may be used. Employees and contractors must be certified as proficient in the use of respirators before using them in confined space entry operations.

LOCKOUT/TAGOUT PROGRAM

Purpose

The purpose of this lockout/tagout program is to prevent employee injuries that can occur during unexpected start-up or energizing of machines or equipment. Performing

maintenance or servicing on machines can be dangerous unless the power supply is discontinued and the machinery is isolated from other energy sources.

This document describes when lockout/tagout must be used, devices for lockout/tagout, appropriate procedures, training, inspection procedures, and procedures to be followed by outside personnel servicing or maintaining company machinery. Only employees trained and authorized to lockout/tagout equipment may do so. As a general rule, only the individual who implements a lockout/tagout is authorized to remove it. Employees must not attempt to start, energize, or use any machine or equipment that is locked/tagged out.

Responsibilities

The Safety Manager is responsible for:

- Ensuring that adequate training is provided to all affected employees,
- Supplying departments with lockout/tagout devices,
- Ensuring that all departments comply with lockout/tagout procedures, and
- Reviewing this program annually and updating procedures as needed.

Supervisors are responsible for enforcing lockout/tagout procedures and for ensuring that their employees understand all elements of the lockout/tagout program.

Employees are responsible for participating in training and complying with all lockout/tagout procedures. Failure to comply with lockout/tagout procedures may result in discipline, up to and including termination of employment.

Machines to Be Locked/Tagged Out

All of the following equipment and machinery must be locked/tagged out prior to service or maintenance.

_____

_____

Detailed procedures for each type of machine listed above are attached as appendices to this document.

Other equipment and machinery not listed here also may require lockout/tagout.

Some machines do not require lockout/tagout for servicing if the following conditions are met:

- The machine is connects to it power source by a plug, and
- The plug remains disconnected and under the control of the employee working on the machine for the duration of the work.

NOTE: Workers should contact the Safety Department before servicing or repairing machinery if there is any question as to whether lockout/tagout is required or any question about how to implement a lockout/tagout.

Devices for Lockout/Tagout

Millwright Sites LLC makes use of individual lockout as well as group lockout devices. Group lockout devices are used on machines if more than one employee is performing service or maintenance on the machine or equipment. The Safety Department is responsible for supplying all necessary lockout/tagout devices to each department.

Lockout devices are ( ) so that they will be easily recognized. Each worker is responsible for carrying his or her own key to the lockout devices issued to that employee. The Safety Manager has a master key available for emergency use on a 24-hour basis.

Group lockout devices are used on machines when more than one employee is performing service or maintenance on the machine. The group lockout device used in this plant can be used up to five individual locks. Group lockout devices are kept by the supervisor responsible for the machinery requiring multiple lockout devices.

Tagout devices are ( ) tags used in this plant to warn others that the machine is being serviced. The tags used in this plant have spaces to write (in ink) the time and date that the tag was placed, the expected time the tag will be in place, and the name and signature of the employee placing the tag. These tags must be applied using the self-locking nylon fastener attached to the tag, and must be removed by cutting with scissors. Tags are never reused.

Procedures for Lockout/Tagout

See the appendices to this document for detailed lockout/tagout procedures for each type of machine listed above (see "Machines to Be Locked/Tagged Out"). The following are general procedures for lockout/tagout. Workers should contact the Safety Department before servicing or repairing machinery if there is any question about how to implement a lockout/tagout.

Equipment or Machine Shutdown

Supervisors must ensure that employees understand the effects of shutting down the equipment or machinery. The employee shutting down the equipment or machinery must do so according to the procedures for that machine. General procedures for shutting down equipment are as follows:

- Warn all other workers who may be affected by the shutdown.
- Place the energy control mechanisms in the "safe" or "off" position.

- Release any stored energy – e.g., hydraulic systems, air, or gas pressure – as described in the procedures for the equipment or machinery.
- Ensure that the machine or equipment is isolated from other hazards.

Lockout/Tagout

The employee implementing the lockout/tagout must:

- Place a lockout and tagout device on each energy control point of the machine or equipment.
- Write his or her name and the time and date of the lockout/tagout on the tagout device (the employee also should include relevant contact information, such as cell phone number, etc), and
- Verify that the machine or equipment in incapable of working or is otherwise isolated from hazardous releases of energy.

When there is a shift change while lockout/tagout devices are in place, off-going shift employees will remove their lockout/tagout devices in the presence of oncoming shift employees. The working areas of the machine or equipment must be clear of personnel and equipment during the change. Oncoming shift employees will then apply their own lockout/tagout devices, verify that the equipment or machine is isolated from hazards, and proceed with work.

Returning the Machine or Equipment to Service

After work is completed, the employee who implemented the lockout/tagout must:

- Remove all tools and materials from the machine,
- Alert employees in the area that the lockout/tagout is being removed and that they should remain clear of the machinery while it is being re-energized,
- Re-energize the machine according to the procedures specific to the machine or equipment, and
- Verify that the machine is operating normally and safely before allowing a resumption of work in the machine's vicinity.

As a general rule, only the employee who implemented a lockout/tagout may remove it. However, if that employee is unavailable to remove a lockout/tagout devices, the device may by removed with the approval of the Safety Manager. Before giving approval, the Safety Manager must verify that the employee who applied the device is not at the facility. Every effort must be made to inform the employer that his or her lockout/tagout device has been removed.

Inspections

Inspections of lockout/tagout procedures are conducted annually by the Safety Manager to ensure that the procedures are being carried out correctly and that the procedures are adequate to protect employees servicing or repairing machinery.

The Safety Manager is responsible for reviewing lockout/tagout procedures with all employees authorized to implement lockout/tagouts. This review will be accomplished at a meeting with all affected staff. The Safety Manager also will walk through lockout/tagout procedures with a representative number of employees. One walk through will be conducted for each type of equipment listed above (see "Machines to Be Locked/Tagged Out").

The Safety Manager will certify that the inspection took place by creating and signing a memorandum with the following information:

- The date(s) of the employee meeting and walk throughs:
- The identity of the machine or equipment for which walk throughs were conducted;
- The names of the employees attending the meeting and participating in the walk throughs;
- Any deficiencies uncovered—e.g., deficiencies in procedures, training, or supervision; and
- Any employee concerns or suggestions for improving Strata Ferrous, Inc.'s lockout/tagout program.

Employee Training

All employees will receive training in recognizing lockout/tagout devices as part of their safety orientation and periodic refresher training. Employees who service or maintain machines or equipment (except machines or equipment excluded from lockout/tagout requirements—see "Machines to Be Locked/Tagged Out") will be trained in hazards and operations of the equipment, along with lockout/tagout procedures. Additional training will be provided if equipment, procedures, or employee responsibilities change.

The Safety Manager is responsible for documenting:

- Training dates,
- Participant names,
- The content covered in the training, and
- Standards by which employees' are evaluated on what they learned.

Outside Personnel

All outside contractors who service or maintain machinery or equipment must receive training and comply with procedures specified in this document. At a minimum, supervisors must ensure that contractor personnel understand not to restart or reenergize machines or equipment that are locked/tagged out.

Blood-borne Pathogens Exposure Control Plan

Purpose

Millwright Sites LLC has established this exposure control plan to eliminate or minimize employee exposure to diseases transmitted by blood, body fluids, and other infectious materials.

This plan and the attached documents incorporated by reference set out:

- The job classifications and work tasks that may reasonably be anticipated to result in exposure;
- Managerial responsibilities and assignments for implementing the plan;
- A schedule for implementing the plan;
- Engineering and work practice controls to protect employees from exposures to blood-borne pathogens;
- Procedures for evaluating circumstances surrounding exposure incidents.

Responsibilities

The Safety Manager is responsible for:

- Working with department managers and supervisors to identify jobs or tasks that may expose employees to blood or infectious materials (see "Infectious Materials Covered by This Plan" and "Exposure Determination," below);
- Contracting with a physician practice group or occupational medical group for the administration of hepatitis B vaccinations and for other medical services that may be necessary to protect employees from blood-borne diseases due to occupational exposure;
- Selecting, and coordinating with department managers for the purchase of any necessary personal protective equipment—e.g., gloves and face masks; and
- Implementing blood-borne pathogens awareness training for all employees and implementing specialized safety training for employees who perform jobs involving exposure to blood-borne pathogens.

The Maintenance Department is responsible for:

- Training janitorial staff on: universal precautions, procedures for cleaning up potentially infectious materials, and proper disposal of biohazardous waste; and
- Stocking appropriate cleaning supplies, such as soap, bleach, biohazardous waste bags or containers, and single use latex or vinyl gloves.

Department managers and supervisors are responsible for:

- Working with Safety Department personnel in determining which job classifications or work tasks expose employees to blood or infectious materials;
- Ensuring that employees are provided with appropriate PPE and that they use the PPE correctly; and

- Ensuring that employees comply with the provisions of this plan.

All employees must be familiar with the requirements of this plan and comply with them.

Infectious Materials Covered by This Plan

For purposes of Millwright Sites LLC's blood-borne pathogens exposure control program, blood, body fluids, and infectious materials include:

- Fluids surrounding the brain, spinal cord, lungs, heart, abdominal organs, and joints;
- Any body fluid or tissue visibly contaminated with blood;
- Saliva in dental procedures;
- Fluid surrounding a fetus;
- Semen;
- Vaginal secretions;
- Any cells or cultures such as might be found in a laboratory that contain pathogens; and
- Any other body fluids where it is not possible to distinguish the source.

Exposure Determination

Safety Department personnel will work with department managers and supervisors in determining which employees are potential exposed to blood-borne pathogens. Exposure determinations will be made by:

- Reviewing job descriptions;
- Interviewing a sample of workers;
- Compiling questionnaires completed by all supervisory personnel; and
- Directly observing work practices.

Employees who believe that their job or work tasks may result in exposure to blood or infectious materials should inform their supervisors or the Safety Manager.

The jobs and tasks identified as involving potential exposure to blood-borne pathogens will be listed on a sheet to be attached to, and maintained as part of, this exposure control plan document.

Exposure Control Plan Implementation

The exposure control plan will be implemented according to the schedule attached to this plan. The exposure control plan consists of ALL of the following components:

- Engineering controls;
- Work practice controls;
- Personal protective equipment;
- Worker training;
- Hepatitis B vaccination;
- Post-exposure evaluation and follow-up; and
- Recordkeeping.

Engineering Controls

The Safety Manager will work with department managers and supervisors in implementing engineering controls that isolate workers from blood or infectious materials. The Safety Manager will coordinate with department managers in evaluating and purchasing isolating devices and equipment, such as rigid, puncture resistant containers for disposing contaminated sharps.

Work Practice Controls

Universal precautions must be followed by all employees to prevent contact with blood, body fluids, or other potentially infectious material. All blood and body fluids must be treated as potentially infectious. All procedures involving blood or other potentially infectious material must be performed in a manner to minimize splashing, spraying, or splattering.

Hand-washing. Employees must wash hands immediately after removing gloves and as soon as feasible following exposure to blood or body fluids (such as a splash or needlestick incident). Proper hand-washing technique using soap and running water includes:

- Wetting hands two to three inches above wrist and applying soap;
- Rubbing hands together to work up a lather;
- Scrubbing hands using a rotating motion for at least 15 seconds;
- Rinsing hands and drying with paper towel; and
- Turning off faucet using a clean paper towel.

Employees must familiarize themselves with the nearest hand-washing facilities. If hand-washing facilities are not available (as with field work), employees must use waterless antiseptic cleanser or antiseptic toweletts, and must wash hands with soap and water as soon as feasible.

Eye wash stations. Employees must familiarize themselves with the nearest eye wash stations. In the event of a splash of blood or body fluids to the eyes or other mucous membranes, flush affected areas with water for at least five minutes. Employees working in the field can use a bottle of saline solution to flush affected areas.

Sharps disposal. Needles and other sharps must be disposed of immediately following use. Sharps must be disposed of only in designated containers. Sharps containers are available through Maintenance Department. Sharps containers must be closed and sealed before they are removed by the maintenance staff. The Maintenance Department will arrange for incineration or other appropriate disposal of the containers.

Needles or other sharps may not be bent, recapped, or moved except by use of a mechanical device for that purpose in the event that immediate disposal into a sharps container is not feasible.

Housekeeping and cleaning procedures. Any equipment or surface that is visibly contaminated with blood or other potentially infectious material must be cleaned as soon as feasible. Only personnel trained in prevention of blood-borne infections can disinfect contaminated equipment. If employees who lack appropriate training become aware of contamination or potentially infectious materials on a surface or on equipment, they should isolate the area until trained personnel arrive to clean the area or equipment.

Employees must use EPA-registered disinfectants to clean surfaces and equipment. Alternatively, a 10 percent solution of chlorine (household) bleach may be used on non-metal surfaces. The bleach solution must be left in contact with the surface for at least 10 minutes before cleaning. EPA-registered disinfectants must be used according to the manufacturer's instructions. Single-use gloves and other appropriate PPE, such as eye protection or an apron, must be worn.

Broken glassware must be swept up with brush and a dustpan and disposed of in a sharps container. Employees must never pick up broken glassware directly with their hands.

Laundry procedures. Laundry that is contaminated or potentially contaminated with blood or body fluids must be double bagged with a red outer bag. If the laundry is wet and may leak through the red laundry bag, it must be bagged in a red plastic bag. Contact the Maintenance Department for removal and cleaning of bagged laundry.

Personal Protective Equipment

Employees must use appropriate PPE, if engineering controls and work practice controls cannot eliminate the potential for exposures to blood or body fluids. Safety Department personnel will work with department managers in selecting and arranging for the purchase of any necessary personal protective equipment.

Protective equipment must be used in all work tasks that involve exposure to blood and body fluids. Garments and other personal protective equipment that become torn, punctured, or penetrated by blood or body fluids must be removed as soon as feasible. All personal protective equipment must be removed before leaving the work area. All disposable equipment and laundry must be placed in designated areas or containers for cleaning, decontamination, or disposal.

Necessary PPE is available to employees no cost. If employees are allergic to any PPE components—e.g., an allergy to latex gloves or a rubber face mask—hypoallergenic alternatives will be provided.

Worker Training

All employees with job classifications or work tasks involving exposure to blood or other potentially infectious materials must be trained in blood-borne infection control. Affected job classifications and work tasks (see "Exposure Determination," above) are listed on a sheet to be attached to, and maintained as part of, this exposure control plan.

Employees must receive exposure control training before performing work involving exposure to potentially infectious materials. All employees in affected job classifications must receive exposure control training within 10 working days of being hired into, or assigned to, an affected job classification. Affected employees also will receive annual refresher exposure control training. Additional training will be provided to employees is such training is recommended or required by their supervisors.

Hepatitis B Vaccination

A hepatitis B vaccination is available at no cost to all employees with job classifications or work tasks listed on the attached sheet unless the employees already has received the complete hepatitis B vaccine series or the employee should not receive the vaccine for medical reasons. The hepatitis B vaccination is available following blood-borne pathogen training and within 10 working days of initial assignment.

Employees may decline to accept the hepatitis B vaccine series. If the employee chooses to decline, the employee must sign the "Declination Statement" attached to this plan. Employees who continue to have workplace exposures to blood and body fluids may choose to receive the vaccine series at a later time by contacting the Safety Department.

Post-Exposure Evaluation and Follow-up

Exposures to blood or infectious materials are defined as the following:

- Break in skin caused by a potentially contaminated object;
- Splash of blood or body fluid onto eyes, mucous membranes, or non-intact skin (that is, skin with sores, severe acne, abrasions, etc.);
- Needlestick injury;
- Mouth-to-mouth resuscitation without pocket mask with one-ay valve; and
- Other exposure that employee believes is significant.

Employees who believe they have been exposed to blood or infectious materials must follow the procedures outlined below:

- Immediately wash the exposed area. Soap and water should be used for skin and wound exposures. If they eyes are affected, continually rinse the eyes for at least five minutes.
- Report the exposure incident to a supervisor.
- Contact the Safety Department for a referral to a medical practice to undergo a confidential medical evaluation.
- Assist the supervisor in documenting the incident using an Incident Report Form.

The medical practice to which the employee is sent for a confidential medical evaluation must be provided with the following:

- A copy of the OSHA Blood-borne Pathogens Regulation (29 CFR § 1910.1030),
- A copy of the Incident Report Form, and
- Any medical records relevant to the treatment of the employee (e.g., vaccination status).

The affected employee will receive a confidential written report from the examining physician within 15 days of the medical evaluation. If the employee has not received a report within this time, he/she should contact the examining physician or the Safety Department.

Recordkeeping

Each employee who completes blood-borne pathogens exposure control training will receive a certificate, a copy of which will be retained in Safety Department files. The Safety Department also will maintain other relevant records, including a description of the training course content, course attendance records, and the dates on which the training was held. Records are available to employees or their representatives for three years following training.

Records relating to employee exposures to potentially infectious materials will be kept in separate, confidential files maintained by the Safety Department. These records will include copies of employee statements declining vaccinations. Records relating to employee exposures will be maintained by Millwright Sites LLC or its designated legal representative for 30 years after the date an employee leaves employment. Exposure records are available to employees on written request be the employees or their designated legal representatives.

Evaluating Exposure Incidents

All exposures and "near-misses" must be documented by supervisors using an Incident Report Form available from the Safety Department. Safety Department personnel will evaluate each report to determine any safety lapses and any changes to this exposure control plan that would help to better ensure worker safety.

Driver Safety Policy

Purpose

Vehicle accidents are extremely costly in both human and economic terms. To protect employees and the public, and to comply with the mother vehicle code of Texas, Strata Ferrous, Inc. has adopted this policy setting out minimum qualifications for commercial drivers and safe driving practices.

Driver Qualifications

Employees must have explicit permission before operating any Millwright Sites LLC - owned vehicle. To satisfy the minimum qualifications to operate Millwright Sites LLC vehicles, a driver must:

- Be at least 21 years of age;

- Have no more than one driver's license; and
- Be licensed to operate the specific vehicle.

Drivers of commercial vehicles are subject to additional requirements (see Commercial Vehicle Driver Qualifications, below). Depending on the employee's job, the vehicle in question, and the type of materials the employee is required to transport, employees may have to satisfy other state and federal requirements.

Commercial Vehicle Driver Qualifications

Commercial vehicles are defined by the U. S. Department of Transportation (DOT) as any of the following:

- Vehicles rated to transport more than 15 passengers, including the driver;
- Vehicles with gross weight ratings over 26,000 pounds (including combination vehicles with trailers of over 10,000 pounds); and
- Vehicles of any size carrying hazardous materials requiring placarding.

Employees who are expected to operate any of these vehicles in the course of their work must hold a commercial driver's license (CDL). In addition to the requirements listed in the previous section, commercial drivers must:

- Provide the company with a list of traffic citations received in the past three years, excluding parking tickers;
- Provide company with a detailed work history of employment in which they operated a commercial motor vehicle over the past 10 years, including the names, addresses, and telephone numbers of employers;
- Notify their supervisors as soon as possible following any accident or charge of any traffic-related offense (excluding parking tickets), whether the accident or traffic violation occurred on or off the job; and
- Notify their supervisors as soon as possible if their license is revoked or suspended, or if they become disqualified to operate a commercial motor vehicles for any other reason (such as a disqualifying medical condition).

The Human Resources Department will request the driving records from the Texas Department of Motor Vehicles for each employee responsible for operating commercial motor vehicles. All records will be kept confidential.

Safe Driving Practices

When operating a motor vehicles (private or Millwright Sites LLC owned) while on Millwright Sites LLC business, all employees must:

- Observe all traffic rules and regulations, including speed limits;
- Ensure that all vehicle occupants wear seat belts;
- Never allow passengers to ride in a trailer or truckbed or in any part of the vehicles not designed for passengers;
- Report any accidents to their supervisors and to local law enforcement officials.

Drivers should notify their supervisors immediately when vehicle safety features are not operating properly.

All employees should drive defensively and maintain a high level of alertness. In inclement weather, drivers should increase following distances, reduce speed, and avoid sudden braking that could cause the vehicle to skid. Finally, drivers must exercise special care in areas with pedestrian and bicycle traffic.

Disciplinary Action

Employees who fail to comply with any requirements in this policy may be subject to immediate discipline up to and including termination of employment.

Employees in positions requiring commercial driver's license must maintain an acceptable

Driving record. The following violations may result in termination of driving responsibilities or termination from the company:

- Driving under the influence of alcohol or any drug that impairs driving abilities;
- Refusing to submit to required drug or alcohol testing or refusal to cooperate with alcohol and drug testing procedures;
- Using any motor vehicle in the commission of a felony;
- Unlawfully leaving the scene of an accident;
- Unlawfully transporting a controlled substance or hazardous material;
- Committing a misdemeanor with the previous 24 months resulting in driver's license revocation or a felony at any time resulting in driver's license revocation; or
- Receiving a citation or a conviction for more than one major traffic offense within the previous 24 months, including reckless driving, careless driving, or other major moving violation.

Guidelines: In Case of Accident

Purpose

The following guidelines are designed to keep you safe, minimize damage to property, and comply with the law and company regulation. These guidelines should be followed in the event of an accident involving a company vehicle when used for any purpose or an accident involving a personal vehicle used for company business.

Initial Actions

Stop as soon as possible for every accident. Pull off to the side, the shoulder, or other safe area. Turn on your warning flashers.

If the damage is serious or if there are injuries, request help by calling 911. Inform the emergency dispatch operator if anyone is injured or if there has been a release of hazardous materials. Do not make or sign any statements regarding your responsibility or fault for the accident.

Avoid additional damage or injury. If you are unable to operate or move the vehicle, remain inside the vehicle unless there is no traffic or emergency personnel have arrived to help you exit the vehicle.

If the accident has resulted in a spill or other release of hazardous materials, follow emergency procedures specific to your vehicle and load description on the shipping documents (the bill of lading and any material safety data sheets). Ensure that shipping documents are kept with you until you give them to emergency response personnel.

You may render first aid if you are qualified and appropriately equipped (e.g., disposable gloves, one-way mask for CPR). You should not put yourself in serious danger to render care or you may become a victim as well.

Exchanging Information

Be courteous to others involved in the accident and response personnel. Give others your name, driver's license number, vehicle registration number, and insurance information. You may not explain or describe the accident to anyone except law enforcement officials, your supervisor, and the authorized representative of the company's insurance carrier.

Record the following information as soon as possible, before you leave the accident scene:

- Names, driver's license numbers, addresses, and telephone number of those involved in the accident, including passengers and pedestrians.
- Vehicle registration number for each vehicle involved in the accident.
- Insurance information for involved vehicles, including carrier policy, policy holder, and insurance policy number.
- Your observations regarding the extent of damage to the other vehicles, structures, or other objects involved in the accident.
- Your observations regarding injuries to other people.
- Name of the responding law enforcement officer.
- Address and telephone number of the law enforcement department where the report will be filed.

Reporting Collisions to the Company

Notify your supervisor as soon as possible and within 24 hours of the accident. Complete an incident report as soon as possible.

For Collisions You Believe Were Deliberate

If you believe that your vehicle has been hit deliberately to make you vulnerable to robbery or assault, drive to the nearest fire station, police station, or other well-lit, occupied business and call the police. Note as much identifying information about the vehicle as possible, such as the make, model, and license number.

Lifting Guidelines

Manual lifting and material handling must be accomplished using methods that ensure that safety of both employees and the materials. Millwright Sites LLC policy employees whose work assignments involve heavy or repetitive lifting to be properly trained. These guidelines are intended to reinforce safe-lifting principles, but are not intended as a substitute for training. Employees who require training or have any questions about these guidelines should contact the Environment, Safety, and Health Department.

Preparation

Study the situation before beginning to lift the object. Review these issues to decide the best way to accomplish the lift:

- Assess the weight of the object and the distance to be covered. Do you need additional personnel or equipment?
- Survey the pickup and delivery area for:
  - Tripping hazards
  - Slippery spots;
  - Tight doorways, low overhead ceilings or spans, or sharp turns (have a tape measure handy to determine object dimensions and the available clearance room); and
  - Blind spots and potential sources of interfering pedestrian or motor traffic.
- Inspect to object for sharp corners, staples, splinters, or slivers. Lightweight work gloves with a non-slip grip area might be helpful for some lifts.
- Identify appropriate handholds. These may be marked on some boxes, crates, and equipment. However, always consult equipment manuals if you have any doubt about appropriate handholds.
- See “Section 3, Team Lifting,” if the lift will require more than one worker.

Manual Lifting

Follow these guidelines when lifting and carrying an object:

- Make sure you have good footing. Set your feet about 10 to 15 inches apart. For some lifts, it might be helpful to have one foot slightly in front of the other. For instance, place one foot close to the side of the object to provide stability and one behind the object to provide lift or thrust.
- Assume a knee-bend or squatting position, keeping your back straight and upright.

- Get a firm grip on the load. Use a full-palm grip to hold the load. Never grip the load with just your fingers. Use any available handles or cutouts that make grasping easier and allow items to be carried near the body.
- Keep your back straight. Your back should be aligned from head to pelvis. Hold in your abdominal muscles to stabilize your back and to give you more lifting support. Keep your chin tucked in to help maintain proper back alignment.
- Do the actual lifting with your legs.
- Carry the load close to your body (not on extended arms). Ideally, items should be carried slightly below waist level. Walk upright and avoid stooping.
- To turn or change your position, shift your feet---don't twist your torso.
- Recognize that your gripping power will weaken over long distances. Lower the object using your legs when the load is too heavy. Communicate to others who are in the area or are assisting with the lift before setting the load down to rest.
- Maintain the same body mechanics when you lower objects---i.e., keep your back straight and lower the load with your legs.
- Provide adequate recovery time before attempting the next lift.

Team Lifting

When lifting large, awkward, or heavy loads, teams should follow the guidelines listed below:

- Review the lift preparation items covered in Section 1 of these guidelines.
- Ensure that you have an adequate number of personnel for the lift. Lifts usually will be easier if the personnel involved are similar heights.
- Personnel should discuss and agree on a lifting plan prior to picking up the object. One person should be designated to give the commands to lift and lower the load. Personnel assisting with the lift should communicate to the leader if they need a rest or need to adjust their grip.
- Arrange personnel appropriately if the object's weight is disproportionately distributed toward one side. Also, more people usually will be required on the first side of the object going down stairs or an incline.
- Each person should use the body mechanics discussed in Section 2 of these guidelines when lifting the object.
- When two persons carry a long piece of pipe or lumber, they should carry it on the same shoulder and walk in step. Use shoulder pads to prevent cutting into shoulders and to help reduce fatigue.

Mechanical Lifting

Mechanical devices must be used for lifting and moving objects that are too heavy or bulky for safe manual handling by employees. Employees who have not been trained must not operate power-driven mechanical devices to lift or move objects of any weight. Heavy objects that require special handling or rigging must be moved only by riggers or under the guidance of employees who have been specifically trained and certified to move such objects.

Follow these rules when using mechanical lifting and moving devices:

- The equipment used must by appropriate for the lifting or moving task.
- Verify that current quarterly inspection stickers and proof of load tags are in place on all primary lifting equipment for hoists and cranes.
- Make sure that defective equipment is repaired before it is used.
- Do not exceed the rated load capacity of lifting equipment.
- Drive forklifts forward going up a ramp and backward going down a ramp.
- Do not allow traffic or personnel to pass under a raised load.
- Do not allow passengers to be carried on lifting equipment unless it is specifically equipped to carry passengers.
- Select the load path to eliminate the possibility of injury to employees should the material-handling equipment fail.
- Never leave a suspended load unattended. Lower it to the working surface and secure the material-handling equipment before leaving the load.

Machine Guarding Checklist

Answering the following questions will help determine whether Millwright Sites LLC is providing adequate machine guarding protection for new and existing equipment. This checklist will help highlight hazardous conditions or practices that require correction**.**

Inspecting Equipment

Employers should inspect new equipment before putting it to use. Employers should answer at least the following questions:

- Does the guarding conform to the company's requirements for machine guarding?
- Does the guarding meet all requirements in OSHA's standard (29 CFR § 1910, Subpart O)?
- Does the manufacturer provide adequate documentation on machine guards?
- Does the guarding allow the worker to comfortably perform the necessary task?
- Does existing equipment comply with all safeguarding requirements?

Using Machinery with Guards

Employees who operate machinery with guards must be properly trained. Employees should be able to answer at least the following questions:

- What are the hazards of the machine?
- Does OSHA require special training to operate and work with the guards on this machine?
- Are the required guards in place?
- Do you know why the safeguards are in place?
- Do you know how to perform the job with the safeguards in place?
- Who can remove the safeguard and under what circumstances?
-

If a safeguard is damaged, missing, or unable to provide adequate protection, employees should contact their supervisor or the Safety Department.

Requirements for All Machine Safeguards

- Do safeguards prevent the operator's hands, arms, and other body parts from making contact with dangerous moving parts?
- Have the following areas been properly safeguarded:
  - ❖ Gears, sprockets, pulleys, flywheels;
  - ❖ Rotating drums;
  - ❖ Belts and chain drivers; and
  - ❖ Exposed set screws, key ways, and collars?
- Are safeguards provided for all hazardous moving parts of the machine, including auxiliary parts?
- Are safeguards firmly secured and not easily removable?

- Do safeguards prevent objects from falling into the moving parts?
- Do safeguards permit safe and comfortable operation of the machine without interfering with the operation?
- Can the machine be lubricated with removing the safeguards?
- Can the safeguards be improved? Employees should work with their supervisors and the Safety Department to make sure that machines are both adequately safeguarded and useable.
- Are the starting and stopping controls within easy reach of the operator?
- If there is more than one operator, are separate controls provided?

Requirements for Mechanical Hazards

- Is a point-of-operation safeguard provided for the machine? The point-of-operation is the point at which cutting, shaping, boring, or forming is accomplished on the material.
- Do the point-of-operation safeguards keep the operator's hands, fingers, and body out of the danger area?
- Can the point-of-operation safeguard be improved? Employees should work with their supervisors and the Safety Department to make sure that machines are both adequately safeguarded and useable.

Checklist for Introducing New Equipment

Preparation and Planning

- Where will the machinery/equipment be installed?
- Is there sufficient work space and access and egress space around the equipment?
- Who will be operating the equipment?
- Is all necessary personnel protective equipment for the machine on hand in sizes and quantities appropriate for the employees who will be using the machine?
- Are existing electrical outlets sufficient?
- Will the machinery require a backup power supply?
- Will an electrician be required to install the machine?
- Will the machine's power switch accommodate standard lockout/tagout devices?
- Do special lockout/tagout devices have to be ordered?
- Will the machinery require the installation of an emergency shutdown switch or valve?
- Does the equipment include machine guarding conforming with all applicable OSHA requirements in 29 CFR § 1910, Subparts O and P?
- Will the machine generate heat or potentially dangerous exhaust?
- Is the ventilation and climate control sufficient in the area in which the machine will be installed?
- Are special types of fire suppression/extinguishing systems required?
- What type of initial setup and calibration is necessary before the machine may be used?

- What type of waste or byproducts will be produced by the machinery?
- What types of environmental or pollution controls will be required?
- Who is responsible for testing the equipment?
- What performance/customer satisfaction guarantees does the vendor offer?

Documentation

- What type of documentation is necessary, including technical specifications, operating procedures, emergency procedures, and training manuals?
- Is vendor-supplied documentation adequate?
- Will custom documentation have to be developed?
- Who is responsible for developing the custom documentation?
- Who is responsible for making changes or updates to user documentation?
- Where will the documentation be kept?
- Is on-line documentation required in addition to print manuals?

Training

- Who will train employees to use the equipment—vendor or in-house staff?
- If in-house staff will conduct the training, is it necessary for the equipment vendor to "train the trainers?"
- Does training cover safety, maintenance, clean-up, and emergency procedures?
- Will employees have sufficient access to the equipment to practice using it?

Maintenance

- What type of routine maintenance or periodic recalibration is necessary?
- At what intervals is maintenance or recalibration required?
- Who is responsible for conducting routine maintenance?
- Is there a service contract with the vendor?
- Who is the appropriate contact person at the vendor for maintenance-related issues?
- Who is responsible for keeping the maintenance schedule and for ensuring that scheduled maintenance is performed?
- Where will maintenance records be kept? Will the equipment be "tagged" with the last maintenance date?
- If equipment breaks down at crucial times, what backup arrangements are available?
- What are the procedures for reporting and repairing broken or malfunctioning equipment?
- Are all necessary supplies on hand—e.g., fuses, belts, and lubricants?
- Who is responsible for reordering supplies?
- Where will supplies be stored?
- Do any supplies require special storage?

Power and Hand Tools Safety Guidelines

General Guidelines

Millwright Sites LLC provides employees with a variety of hand and power tools to enable them to accomplish their jobs quickly, reliably, and safely. Employees should observe the following guidelines:

- Use the right tool for the right job.
- Examine power tools for faulty parts before use. Do not use tools with frayed cords or loose or broken switches. Make sure that the power tools have an electrical grounding prong in place or that it is marked "double insulated."
- Keep all tools in good condition with regular maintenance.
- Know the application, limitation, and potential hazards of the tool used.
- Operate according to the manufacturer's instructions
- Use eye protection and other appropriate personal protective equipment.
- Keep guards in place, in working order, and properly adjusted.
- Maintain clutter-free work areas.
- Remain alert to the potential hazards in the working environment such as slippery floors or the presence of highly combustible materials.

Hand Tools

Hand tools are non-powered. They include anything from axes to wrenches. The greatest hazards posed by hand tools result from misuse and improper maintenance.

- The supervisor is responsible for the safe condition of tools and equipment used by his workers, but the workers have the responsibility of using and maintaining tools properly.
- Saw blades, knives, or other tools should be directed away from aisle areas and other workers working in close proximity.
- Knives and scissors must be sharp. Dull tools can be more hazardous than sharp ones.
- When workers are working with hand knives, boning knives, draw knives, and scissors, they should use appropriate personal protective equipment such as wire mesh gloves, wrist guards, arms guards, and aprons or belly guards.
- Safety requires that floors be kept clean and dry as possible to prevent accidental slips with or around dangerous hand tools.
- Around flammable substance, sparks produced by iron or steel hand tools can be a dangerous ignition source. Where this hazard exists, spark resistant tools made from brass, plastic, aluminum, or wood will decrease the risk.

Power Tools

Power tools can be hazardous when improperly used. There are several types of power tools, based on the power source they use: electric, pneumatic, liquid fuel, hydraulic, and

explosive-actuated. Workers should be trained in the use and limitation of their power tools. They should understand potential hazards and safety precautions to prevent those hazards from occurring. Proper training should be provided when needed to permit safe operation of the tools.

General Use Guidelines for Power Tools

- Never carry a tool by the cord or pressure hose.
- Never yank the cord or the hose to disconnect the tool from the electrical outlet or power source.
- Keep cords and hoses away from heat, oil, and sharp edges.
- Disconnect tools when not in use, before servicing, and when changing accessories such as blades, bits, and cutters.
- All observers should be kept at a safe distance from the work area.
- Secure work with clamps or a vise, freeing both hands to operate the tool.
- Avoid accidental starting. The worker should not hold a finger on the switch button while carrying a plugged-in tool.
- Tools should be maintained with care. They should be kept sharp and clean for best performance. Following instructions in the user's manual for lubricating and changing accessories.
- Be sure to keep good footing and maintain good balance.
- The proper apparel should be worn. Loose clothing, ties, or jewelry can become caught in moving parts.
- All portable electric tools that are damaged must be removed, or tagged "Do Not Use."

Machine Guards

Hazardous moving parts of a power tool need to be safeguarded. For example, belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, or other reciprocating, rotating, or moving parts of equipment must be guarded if such parts are exposed to contact by workers. Guards, as necessary, should be provided to protect the operator and others from point of operation, in running nip points, rotating parts, and flying chips and sparks.

Safety guards must never be removed when the tool is being used. For example, portable circular saws must be equipped with guards. An upper guard must cover the entire blade of the saw. A retractable lower guard must cover the teeth of the saw, except when it makes contact with the work material. The lower guard must automatically return to covering position when the tool is withdrawn from the work. Safety switches must be kept functional and must not be modified.

The following hand-held power tools must be equipped with a momentary contact "on-off" control switch: drills; tappers; fastener drivers; horizontal, vertical, and angle grinders with wheels larger than two inches in diameter; disc sanders; belt sanders; reciprocating saws; saber saws; and other similar operations. These tools may also be equipped with a lock-on control provided that turnoff can be accomplished by a single motion of the same finger or fingers that turn it on.

The following hand-held power tools may be equipped with only a positive "on-off" control switch: platen sanders; grinders with wheels tow inches or less in diameter; routers; planers; laminate trimmers; nibblers; shears; scroll saws; jigsaws with blade shanks one-fourth inch wide or less. Other hand-held power tools such as circular saws, chain saws, and percussion tools with positive accessory holding means must be equipped with a constant pressure switch that will shut off the power when the pressure is released.

Electric Tools

Workers using electric tools must be aware of several dangers. The most serious is the possibility of electrocution. To protect the user from shock, tools must either have a three-wired cord with ground or else be double insulated. Three-wire cords contain two current conductors and a grounding conductor. One end of the grounding conductor connects to the tool's metal housing. The other end is grounded through a prong on the plug. Whenever an adapter is used to accommodate a two-hole receptacle, the adapter wire must be attached to a known ground. The third prong should never be removed from the plug.

Double insulation is more convenient. The user and the tools are protected in two ways: by normal insulation on the wires inside, and by a housing that cannot conduct electricity to the operator in the event of a malfunction.

The following general practices should be followed when using electric tools:

- Electric tools should be operated within their design limitations.
- Gloves and safety footwear are recommended during use of electric tools.
- When not in use, tools should be stored in a dry place.
- Electric tools should not be used in damp or wet locations
- Work areas should be well lighted.

Abrasive Wheel Tools

Powered abrasive grinding, cutting, polishing, and wire buffing wheels create special safety problems because they may throw off flying fragments.

- Before an abrasive wheel is mounted, it should be inspected closely and sound or ring-tested to be sure it is free from cracks or defects. To test, wheels should be tapped gently with a light nonmetallic implement. If they sound cracked or dead, they could fly apart in operation and so must not be used. A sound and undamaged wheel will give a clear metallic tone or "ring."
- To prevent the wheel from cracking, the user should be sure it fits freely on the spindle. The spindle nut must be tightened enough to hold the wheel in place, but not tight enough to distort the flange. Follow the manufacturer's recommendations. Care must be taken to assure that the spindle speed will not exceed the abrasive wheel specifications.
- Due to the possibility of a wheel disintegrating (exploding) during startup, the worker should never stand directly in front of the wheel as it accelerates to full operating speed.

- Portable grinding tools need to be equipped with safety guards to protect workers, not only from the moving wheel surface, but also from flying fragments in case of breakage.
- In addition, when using a powered grinder: 1) always use eye protection; 2) turn off the power when not in use; and 3) never clamp a hand-held grinder in a vise.

Pneumatic Tools

Pneumatic tools are powered by compressed air. They include chippers, drills, hammers, and sanders. There are several dangers encountered in the use of pneumatic tools:

- The main one is the danger of getting hit by one of the tool's attachments, or some kind of fastener the worker is using with the tool. Eye protection is required and face protection is recommended for workers working with pneumatic tools.
- Noise is another hazard. Working with noisy tools such as jackhammers requires proper use of ear protection.
- When using pneumatic tools, workers must check to see that the tools are fastened securely to the hose by a positive means to prevent them from becoming disconnected. A short wire or positive locking device attaching the air hose to the tool will serve as an added safeguard.
- In general, the same precautions should be taken with an air hose that are recommended for electric cords, since the hose is subject to the same kind of damage or accidental striking and presents tripping hazards.
- A safety clip or retainer must be installed to prevent attachments, such as chisels on a chipping hammer, from being unintentionally shot from the barrel.
- Screens must be set up to protect nearby workers from being struck by flying fragments around chippers, riveting guns, staplers, or air drills.
- Compressed air guns should never be pointed toward anyone. The user should never "dead-end" it against him or herself or anyone else.
- Airless spray guns which atomize paints and fluids at high pressure (1,000 pounds or more per square inch) must be equipped with automatic or visual manual safety devices which will prevent pulling the trigger until the safety device is manually released.
- If an air hose is more than one-half inch in diameter, a safety excess flow valve must be installed at the source of the air supply to shut off the air automatically in case the hose breaks.
- Heavy jackhammers can cause fatigue and strains; heavy rubber grips reduce these effects by providing a secure handhold.
- Workers operating a jackhammer must wear safety glasses and safety shoes, which protect against injury if the hammer slips or falls. A face shield should also be used.

Liquid Fuel Tools

Some tools are fuel powered, usually by gasoline. The most serious hazard with fuel-powered tools comes from fuel vapors that can burn or explode and give off dangerous exhaust fumes.

- The worker must be careful handling, transporting, and storing the gas or fuel in approved flammable liquid container, according to proper procedures for flammable liquids.
- Before the tank for a fuel-powered tool is refilled, the user must shut the engine down and allow it to cool to prevent accidental igniting of hazardous vapors.
- If a fuel-powered tools is used inside a closed area, effective ventilation and/or personal protective equipment is necessary to avoid breathing carbon monoxide. Fire extinguishers must be available in the area.

Nail Guns and Other Explosive-Actuated Tools

Explosive-actuated tools operate almost like a loaded gun and should be treated with the same respect and precautions. In fact, they are so dangerous that they must be operated only by specially trained workers. Workers should take the following precautions:

- These tools should not be used in an explosive or flammable atmosphere.
- Before using the tool, the worker should inspect it to determine that it is clean, that all moving parts operate freely, and the barrel is free from obstructions.
- The tool should never be pointed at anybody.
- The tool should not be loaded unless it is to be used immediately. A loaded tool should not be left unattended, especially where it would be available to unauthorized persons.
- Hands should be kept clear of the barrel end.
- To prevent the tool from firing accidentally, two separate motions are required for ignition: 1) bring the tool into position; and 2) pull the trigger.
- The tools must not be able to operate until they are pressed against the work surface with a force of at least five pounds greater than the total weight of the tool.
- If an explosive-actuated tool misfires, the worker should wait at least 30 seconds, and then try firing it again. If it still will not fire, the user should wait another 30 seconds so that the faulty cartridge is less likely to explore, then carefully remove the load. The bad cartridge should be put in water.
- Suitable eye and face protection are essential when using an explosive-actuated tool.
- The muzzle end of the tool must have a protective shield or guard centered perpendicularly on the barrel to confine any flying fragments or particles which might otherwise create a hazard when the tool is fired. The tool must be designed so that it will not fire unless it has this kind of safety device.
- All explosive-actuated tools must be designed for varying powder charges so that the user can select a powder level necessary to do the work without excessive force.
- If the tool develops a defect during use, it should be tagged and taken out of service immediately until it is properly repaired.

NOTE: When using explosive-actuated tools to apply fasteners, there are some precautions to consider. Fasteners must not be fired into material which would let them pass through to the other side. The fastener must not be driven into materials like brick or concrete any closer than three inches to an edge or corner. In steel, the fastener must not come any closer than a half inch from a corner or edge. Fasteners must not be driven into very hard or brittle materials which might chip or splatter, or make the fastener ricochet.

Hydraulic Power Tools

The fluid used in hydraulic power tools must be approved and fire-resistant, and must retain its operating characteristics at the most extreme temperatures to which it will be exposed. The manufacturer's recommended safe operating pressure for hoses, valves, pipes, filters, and other fittings must not be exceeded.

Forklift Safety Program

Introduction

Material handling is a significant safety concern at Millwright Sites LLC During the movement of products and materials, there are numerous opportunities for personal injury and property damage if proper procedures and caution are not used. This program applies to all powered industrial trucks, including forklifts, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustion engines. The information in this program and applicable standards should be used to train prospective industrial truck operators and provide the basis for refresher and annual retraining.

Responsibilities

The Safety Manager is responsible for developing, implementing, and administering Millwright Sites LLC's forklift safety program. The Safety Manager will review the forklift safety program annually and make recommendations for revisions is necessary. The Safety Manager must ensure that all employees who operate or work near forklifts are properly trained.

Supervisors must ensure that their employees follow safe operating procedures when using forklifts.

Employees who operate forklifts must follow the safe operating procedures specified below.

Applicable Standards

OSHA's standard on powered industrial trucks is at 29 CFR § 1910.178. The applicable voluntary consensus standard is ANSI B56.1, American National Standard for Powered Industrial Trucks. In addition to these standards, supervisors and employees should follow the procedures described in operator's manuals supplied by the manufacturers.

Pre-Qualifications for Powered Industrial Truck Operators

All candidates for powered industrial truck (PIT) operators must meet the following basic requirements prior to starting initial or annual training:

- Have a driver's license and good driving record.
- No adverse vision problems that cannot be corrected by glasses or contacts.
- No adverse hearing loss that cannot be corrected with hearing aids.
- No physical impairments that would impair safe operation of the PIT.
- No neurological disorders that affect balance or consciousness.
- Not taking any medication that affects perception, vision, or physical abilities.

Training

Training for PIT operators must be conducted by an experienced operator, selected by the Safety Manager. All operational training must be conducted under close supervision. All training and evaluation must be completed before an operator is permitted to use a PIT without continual and close supervision.

Trainees may operate a powered industrial truck only:

- Under the direct supervision of persons, selected by the Safety Manager, who have the knowledge, training, and experience to train operators and evaluate their competence; and
- Where such operation does not endanger the trainee or other employees.

Training consists of a combination of formal instruction, practical training (demonstrations performed by the trainer and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace.

Initial Training

As specified in the OSHA standard, PIT operators must receive initial training in the following truck-related and workplace-related topics:

Truck-related topics:

- Operating instructions, warnings, and precautions for the type of truck the operator will be authorized to operate;
- Differences between the truck and automobiles;
- Truck controls and instrumentation;
- Engine or motor operation;
- Steering and maneuvering;
- Visibility (including restrictions due to loading);
- Fork and attachment adaptation, operation, and use limitations;
- Vehicle capacity;
- Vehicle stability;
- Vehicle inspection and maintenance that the operator will be required to perform;

- Refueling and/or charging and recharging of batteries;
- Operating limitations; and
- Operating instructions, warnings, or precautions listed in the operator's manual for the types of vehicle that the employee is being trained to operate.

Workplace-related topics:

- Surface conditions where the vehicle will be operated;
- Composition of loads to be carried and load stability;
- Load manipulation, stacking, and unstacking;
- Pedestrian traffic in areas where the vehicle will be operated;
- Narrow aisles and other restricted places where the vehicle will be operated;
- Hazardous (classified) locations where the vehicle will be operated;
- Ramps and other sloped surfaces that would affect the vehicles' stability;
- Closed environments and other areas where insufficient ventilation or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust; and
- Other unique or potentially hazardous environmental conditions in the workplace that could affect safe operation.

Refresher Training and Evaluation

Refresher training, including an evaluation of the effectiveness of that training, must be conducted to ensure that the operator has the knowledge and skills needed to operate the powered truck safely.

Refresher training in relevant topics must be provided to the operator in the following situations:

- The operator has been observed operating the vehicle in an unsafe manner.
- The operator has been involved in an accident or near-miss incident.
- The operator has received an evaluation that reveals that the operator is not operating the truck safely.
- The operator is assigned to drive a different type of truck.
- A condition in the workplace changes in a manner that could affect safe operation of the truck.
- Once every three years, an evaluation will be conducted of each powered industrial truck operator's performance.

Safe Operating Procedures

- Only authorized and trained personnel will operator PITs.
- All PITs will be equipped with a headache rack, fire extinguisher, rotating beacon, back-up alarm, and seat belts. The operator will wear seatbelts at all times.
- The operator will perform daily pre- and post-trip inspections.
- Any safety defects (such as hydraulic fluid leaks; defective brakes, steering, lights, or horn; and/or missing fire extinguisher, lights, seat belt, or back-up

- alarm) will be reported for immediate repair or the PIT will be taken out of service.
- Operators will follow the proper recharging or refueling safety procedures.
- Loads will be tilted back and carried no more than six inches from the ground. Loads that restrict the operator's vision will be transported backwards.
- PITs operators will obey plant speed limits and slow down on wet floors and going around turns.
- Hard hats will be worn by PIT operators.
- Operator will sound the horn and use extreme caution when meeting pedestrians, making turns, and cornering.
- Only the operator will ride PITs.
- If PITs are used as a man lift, an appropriate man lift platform (cage with standard rails and toe-boards) will be used.
- Aisles will be maintained free from obstructions, marked, and wide enough (six-foot minimum) for vehicle operation.
- Lift capacity will be marked on all PITs. Operators will assure the load does not exceed rated weight limits.
- When unattended, PITs will be turned off, forks lowered to the ground, and the parking brake applied.
- All PITs (with the exception of pallet jacks) will be equipped with a multi-purpose dry chemical fire extinguisher (minimum rating; 2A:10B:C).
- Operators must report all accidents, regardless of fault and severity, to the Safety Manager. The Safety Manager will conduct an accident investigation.
- When loading rail cars and trailers, dock plates will be used. Operators will assure dock plates are in good condition and will store them on edge when not in use.
- Rail cars and trailers will be parked squarely to the loading area and have wheels chocked in place. Operators will follow established docking/undocking procedures.

Changing and Charging Storage Batteries

- Battery charging installations must be located in areas designated for that purpose.
- Facilities must be provided for flushing and neutralizing spilled electrolyte, for fire protection, for protecting charging apparatus from damage by trucks, and for adequate ventilation for dispersal of fumes from gassing batteries.
- A conveyor, overhead hoist, or equivalent material handling equipment must be provided for handling batteries.
- Reinstalled batteries must be properly positioned and secured in the truck.
- A carbon filter or siphon must be provided for handling electrolyte.
- Trucks must be properly positioned and brake applied before attempting to change or charge batteries.
- Care must be taken to assure that vent caps are functioning. The battery (or compartment) cover(s) must be open to dissipate heat.
- Smoking is prohibited in the charging area.

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

Trucks and Railroad Cars

- Check the flooring of trucks, trailers, and railroad cars for breaks and weakness before driving onto them.
- The brakes of highway trucks must be set and wheel chocks placed under the rear wheels to prevent the trucks from rolling while they are boarded with powered industrial trucks.
- Wheel stops or other recognized positive protection must be provided to prevent railroad cars from moving during loading or unloading operations.
- Fixed jacks may be necessary to support a semi trailer and prevent upending during the loading or unloading when the trailer is not coupled to a tractor.
- Positive protection must be provided to prevent railroad cars from being moved while dock boards or bridge plates are in position.

Operations

- If at any time a powered industrial truck is found to be in need of repair, defective, or in any way unsafe, the truck must be taken out of service until it had been restored to safe operating condition.
- Trucks must not be driven up to anyone standing in front of a bench or other fixed object.
- No person will be allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.
- Unauthorized personnel may not ride on powered industrial trucks.
- Arms and legs may not be placed between the uprights of the mast or outside the running lines of the truck.
- When a powered industrial truck is left unattended, loading engaging means must be fully lowered, controls neutralized, power shut off, and brakes set. Wheels must be blocked if the truck is parked on an incline.
- A safe distance must be maintained from the edge of ramps or platforms while on any elevated dock, platform, or freight car. Trucks must not be used for opening or closing freight doors.
- There must be sufficient headroom under overhead installations, lights, pipes, sprinkler systems, etc.
- An overhead guard must be used as protection against falling objects. An overhead guard is intended to offer protection form the impact of small packages, boxes, bagged material, etc., representative of the job application, but not to withstand the impact of a falling capacity load.
- A load backrest extension must be used whenever necessary to minimize the possibility of the load or part of it from falling rearward.
- Trucks must not be parked so as to block fire aisles, access to stairways, or fire equipment.

Traveling

- All traffic regulations must be observed, including authorized speed limits. A safe distance must be maintained, approximately three truck lengths from the truck ahead, and the truck must be kept under control at all times.
- The right of way must be yielded to ambulances, fire trucks, or other vehicles in emergency situations.
- Do not pass other trucks traveling in the same direction at intersections, blind spots, or other dangerous locations.
- The driver must slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver must travel with the load trailing.
- Railroad tracks must be crossed diagonally wherever possible. Parking closer than eight feet from the center of railroad tracks is prohibited.
- The driver must look in the direction of and keep a clear view of the path of travel.
- Grades must be ascended and descended slowly. When ascending or descending grades in excess of 10 percent, loaded trucks must be driven with the load upgrade. On all grades, the load and load engaging means must be tilted back if applicable, and raised only as far as necessary to clear the road surface.
- Under all travel conditions the truck must be operated at a speed that will permit it to be brought to a stop in a safe manner.
- Stunt driving and horseplay are prohibited.
- The driver must slow down on wet and slippery floors.
- Dock board or bridge plates must be properly secured before they are driven over. Dock board or bridge plates must be driven over carefully and slowly and their rated capacity never exceeded.
- Avoid running over loose objects on the roadway surface.
- While negotiating turns, reduce speed to a safe level by turning the hand steering wheel in a smooth, sweeping motion. Except when maneuvering at a very low speed, the hand steering wheel must be turned at a moderate, even rate.

Loading

- Only stable or safely arranged loads can be handled. Exercise caution when handling off-centered loads that cannot be centered.
- Only loads within the rated capacity of the truck can be handled.
- Adjust the long or high (including multiple-tiered) loads that may affect capacity.
- Trucks equipped with attachments must be operated as partially loaded trucks when not handling a load.
- A load engaging means must be placed under the load as far as possible. The mast must be carefully tilted backward to stabilize the load.
- Use extreme care when tilting the load forward or backward, particularly when high tiering. Tilting forward with load engaging means elevated is prohibited except to pick up a load. An elevated load may not be tilted forward except when the load is in a deposit position over a rack or stack. When stacking or tiering, use only enough backward tilt to stabilize the load.

Fueling Safety

- Fuel tanks may not be filled while the engine is running. Avoid spillage.
- Spillage of oil or fuel must be carefully washed away or completely evaporated and the fuel tank cap replaced before restarting engine.
- No truck can be operated with a leak in the fuel system until the leak has been corrected.
- Do not use open flames for checking electrolyte level in storage batteries or gasoline level in fuel tanks.

Maintenance

- Any power-operated industrial truck not in safe operating condition must be removed from service. All repairs must be made by authorized personnel.
- Those repairs to fuel and ignition systems of industrial trucks that involve fire hazards must be conducted only in locations designated for such repairs.
- Trucks in need of repairs to the electrical system must have the battery disconnected before such repairs.
- All parts of any such industrial truck requiring replacement must be replaced only by parts equivalent as to safety with those used in the original design.
- Industrial trucks must not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer. They also can not be altered either by the addition of extra parts not provided by the manufacturer or by the elimination of any parts. Additional counter-weighting of fork trucks must not be done unless approved by the truck manufacturer.
- Industrial trucks must be examined before being placed in service, and must not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination must be made at least daily. Where industrial trucks are used on a round-the-clock basis, they must be examined before each shift. Any defects must be immediately reported and corrected.
- When the temperature of any truck is found to be in excess of its normal operating temperature, thus creating a hazardous condition, the vehicle must be removed from service and not returned to service until the cause for such overheating has been eliminated.
- Industrial trucks must be kept in a clean condition, free of lint, excess oil, and grease. Noncombustible agents should be used for cleaning trucks. Low flash point (below 100 degrees F) solvents must not be used. High flash point (at or above 100 degrees F) solvents may be used.

Hazard Communication Program

Purpose

This hazard communication program is designed to ensure the Millwright Sites LLC is in compliance with OSHA's hazard communication standard. The standard is intended to ensure that the hazards of all chemicals used in the workplace are evaluated and that this information is made available to employees who use the chemicals.

Millwright Sites LLC will provide information to employees by making sure that containers are labeled, compiling Material Safety Data Sheets (MSDSs), and training employees. For additional information about chemical hazards or the hazard communication standard, employees should contact the Safety Department.

Responsibilities

The following company departments and officials are responsible for implementing the hazard communication program:

- Program coordination: _____
- Ensuring labeling of in-plant containers: _____
- Ensuring labeling of shipped containers: _____
- Obtaining and maintaining MSDSs: _____
- Conducting training: _____

Supervisors are responsible for ensuring that their employees receive the appropriate training at the appropriate time. Employees are responsible for understanding and complying with all phases of Millwright Sites LLC's hazard communication program.

Container Labeling

Each container of hazardous chemicals must be labeled, tagged, or otherwise marked with the identity of the hazardous chemical or chemicals and appropriate hazard warnings. Labels and other forms of warning must be legible and in English, and will be prominently displayed or readily available in the work area during each shift.

All secondary containers also must be labeled according to the requirements of the hazard communication standard. Secondary containers are containers into which materials are transferred for in-house use, other than for immediate use by the employee filling the container. Secondary containers will be labeled with an extra copy of the original manufacturer's label or with generic labels that have a space to enter the identity of the chemical and a space for the hazard warning.

Millwright Sites LLC will strive to label the contents of all piping that containing hazardous chemicals. Before working on a pipe, employees should contact their supervisors for information on the identity of the chemical in the pipe, the potential hazards of the chemical, and safety precautions that should be observed.

Material Safety Data Sheets

An MSDS will be kept for each hazardous chemical to which employees may be exposed. MSDSs will be updated as necessary. Employees should know how to read and understand MSDSs. Employees should read the MSDS before starting a task during which they may be exposed to a hazardous chemical.

MSDSs are kept at the Office and will be kept so that they are readily accessible by employees during each work shift.

Employee Training

All new employees who may be exposed to hazardous chemicals must be trained in the requirements of the hazard communication standard. Employees will receive initial training before starting work and will receive additional training if required by changes in job assignments or if new hazards are introduced into the work area. Upon the completion of training, each employee will receive a Hazard Communication Training Certificate, which will become a permanent part of the employee's personnel file.

Hazard communication training must cover the following topics:

- An explanation of the hazard communication standard and Strata Ferrous, Inc.'s program;
- A review of the chemicals present in the work area, including the physical and health hazards associated with the materials;
- The location and availability of the written communication program and MSDSs;
- Procedures to be used to detect the presence or release of hazardous chemicals;
- Instructions on minimizing exposure to hazardous chemicals through the use of work practices and personal protective equipment;
- Emergency procedures to follow if an employee is exposed to a chemical;
- Instructions on reading warning labels and MSDSs; and
- Who to contact to get additional information.

Non-Routine Tasks

Employees occasionally may be assigned to perform non-routine tasks during which they may be exposed to hazardous chemicals. Before starting these tasks, supervisors should inform affected employees about the hazards to which they may be exposed.

Supervisors should inform these employees of the following:

- Specific chemical hazards;
- Protective measures that the employee must use; and
- Measures that have been taken to minimize the hazards, including ventilation, respirators, presence of another employee, and emergency procedures.

Informing Contractors

To ensure the safety of employees of outside employers working in Millwright Sites LLC facilities, the Safety Director should provide contractors with the following information:

- A copy of Millwright Sites LLC's written hazard communication program;
- The name and location of the hazardous chemicals to which they may be exposed while on the premises;
- Any recommendations for protective measures; and
- Where MSDSs are kept.

List of Hazardous Chemicals

The following is a list of all known hazardous chemicals used in this facility. Further information about each chemical can be obtained by reviewing the chemical's Material Safety Data Sheet.

Hazardous Chemical	Trade or Common Name	Work Area or Process Where Found	Manufacturer or Distributor	Date MSDS Received

Spill Response Plan

Introduction

Spilled chemicals should be effectively and quickly contained and cleaned up. Employees should clean up spills themselves only if properly trained and protected. Employees who are not trained in spill cleanup procedures should report the spill to the Safety Department, warn other employees, and leave the area.

The following telephone numbers should be posted near telephones and in other conspicuous locations:

- Outside emergency services (policy, fire department, ambulance service): **911**
- Hospital:
- Emergency response coordinator:
- Safety Department: Susan Hurst (830) 560-2109 or Floyd (210) 669-6552
- Poison Control Center:
- Regional EPA Office:
- State environmental agency:
- OSHA area office:
- National Response Center:
- State emergency response commission:
- Local emergency planning committee:

Responsibilities

The facility emergency response coordinator has primary responsibility for coordinating the response to emergencies, including chemical spills. **Supervisors** should ensure that employees are familiar with these procedures and receive any necessary training. **All employees** should follow these procedures in the event of a chemical spill.

Spill Response Procedures

The following procedures are designed to minimize the hazards to employees and emergency responders in the event of a chemical spill.

Chemical spills are divided into three categories:

- **Small spills.** This includes any spill where the major dimension is less then 18 inches in diameter.
- **Medium spills.** These are spills where the major dimension exceeds 18 inches, but is less than 6 feet.
- **Large spills.** Large spills include:
  - Any spill involving flammable liquid where the major dimension exceeds 6 feet in diameter; and

- Any "running" spill, where the source of the spill has not been contained or flow has not been stopped.

The following general guidelines should be followed for spill control, evacuation, notification of proper authorities, and general emergency procedures in the event of a chemical incident in which there is potential for a significant release of hazardous materials.

Evacuation

Persons in the immediate vicinity of a spill should immediately evacuate the premises (except for employees with training in spill response in circumstances described below). If the spill is of "medium" or "large" size, or it the spill seems hazardous, immediately notify emergency response personnel.

General Spill Control Techniques

Once a spill has occurred, the employee needs to decide whether the spill is small enough to handle without outside assistance. Only employees with training in spill response should attempt to contain or clean up a spill. See the following "Response and Cleanup Procedures" section for specifics in spill response procedures.

NOTE: If you are cleaning up a spill yourself, make sure you are aware of the hazards associated with the materials spilled, have adequate ventilation, and proper personal protective equipment. Treat all residual chemical and cleanup materials as hazardous waste.

Spill control equipment should be available wherever significant quantities of hazardous materials are received or stored. MSDSs, absorbents, over-pack containers, container patch kits, spill dams, shovels, floor dry, acid/base neutralizers, and "caution-keep out" signs are common spill response items that should be stocked in these areas. Consult the Safety Department for more information on what to stock for your area. For OSHA trained responders, respiratory protection should be available.

Response and Cleanup Procedures

Small spills are generally handled by internal personnel and usually do not require an emergency response by police or fire department HAZMAT teams. Spills of less than 18 inches normally are cleaned up by the spiller. First, quickly contain the spill by stopping or securing the spill source. This could be as simple as up righting a container and using floor-dry or absorbent pads to soak up spilled material. Wear gloves and protective clothing, if necessary. Put spill material and absorbents in secure containers if any are available. Next, do not wash the spill area until consulting with the Safety Department and the MSDS for spill and waste disposal procedures. Sometimes the area of the spill should not be washed with water. Also, both the spilled material and the absorbent may be considered hazardous waste and must be disposed of in compliance with state and federal environmental regulations.

Outside emergency response personnel (police and fire department HAZMAT teams) should usually be call for medium spills. Common sense, however, will dictate when it is necessary to call them. Medium spills require the following actions:

- First, immediately try to help contain the spill at its source by simple measures only. This means quickly up righting a container, or putting a lid on a container, if possible. Do not use absorbents unless they are immediately available. Once you have made a quick attempt to contain the spill, or once you have quickly determined you cannot take any brief containment measures, leave the area and alert the police at 911. Closing doors behind you while leaving helps contain fumes from spills. Give police accurate information as to the location, chemical, and estimated amount of the spill
- Second, evaluate the area outside the spill. Engines and electrical equipment near the spill area must be turned off. This eliminates various sources of ignition in the area. Advise police or emergency responders on how to turn off engines and electrical sources. Do not go back into the spill area once you have left. Help emergency responders by trying to determine how to shut off heating, air conditioning equipment, or air circulating equipment, if necessary.
- If emergency responders evacuate the spill area, follow their instructions in leaving the area.
- After emergency responders have contained the spill, be prepared to assist them with any other information that may be necessary, such as MSDSs and questions about the facility.
- Emergency responders or trained personnel with proper personal protective equipment will then clean up the spill residue. Do not re-enter the area until the responder in charge gives the all clear. Be prepared to assist these persons from outside the spill area with MSDSs, absorbents, and containers.
- Reports must be filed with proper authorities. It is the responsibility of the spiller to inform both his/her superior and the emergency responders as to what caused the spill. The Millwright Sites LLC accident forms should be used. The Safety Department and the responders will then finish notifying authorities, if necessary.

The response for large spills is similar to the procedures for medium spills, except that the exposure danger is greater. The response for large spills is as follows:

- First, since spill control or containment by the spiller is not likely, the spiller should immediately leave the area and notify police (911). Again, give the operator the spill location, chemical spilled and approximate amount.
- Second, from a safe area, attempt to get MSDS information for the spilled chemical for the emergency responders to use. Also, be prepared to advise responders as to any ignition sources, engines, electrical power, or air conditioning/ventilation systems that may need to be shut off. Advise responders of any absorbents, containers, or spill control equipment that may be available. This may need to be done from a remote area, because an evacuation that would place the spiller far from the scene may be needed. Use radio or phone to assist from a distance, if necessary.
- Spills greater than 6 feet in any dimension or that are continuous should be handled only by emergency response personnel, in accordance with their own established procedures. Remember, once the emergency responders or HAZMAT team is on the

- job cleaning up spills or putting out fires, the area is under their control and no one may re-enter the area until the responder in charge gives the all clear.
- Finally, the spiller will need to provide information for reports to supervisors and responders, just as in medium spills.

Spills that Require Special Procedures

For small spills of mercury (such as from broken thermometers or fluorescent tubes), take the following steps:

- Use a commercial spill kit, if available.
- Use safety glasses and gloves
- Push pools and droplets of metallic mercury together and collection them with a suction pump.
- After the gross contamination has been removed, sprinkle the entire area with zinc powder. Spray the zinc with dilute sulfuric acid.
- Using the sponge, work the zinc powder/sulfuric acid into a paste consistency while scrubbing the containment surface and cracks or crevices.
- To minimize contamination of housekeeping items, stiff paper can be used to assist in cleaning up the amalgam.
- After the paste has dried, sweep it up and place it in a plastic container for disposal.
- Place rages, show covers sponges, and anything used for the cleanup in the trash bag to be disposed of as contaminated material.

For spills al alkali metals (such as sodium or potassium metals), smother the spill with dry sand, put it in a hood, and react it with isopropyl alcohol, if possible. For white phosphorus, blanket the spill with wet sand or a wet absorbent.

Reporting Spills

All chemical spills, regardless of size, should be reported as soon as possible to the Safety Department. The Safety Department will determine whether the spill has the potential to affect the environment outside Millwright Sites LLC's facility and must be reported to the National Response Center at 800-424-8802. Examples of spills that could affect the outside environment include spills that are accompanied by fire or explosion and spills that could reach nearby water bodies.

Accidental releases of certain toxic substances must be reported to the State Emergency Response Commission and Local Planning Committee, as required by the Emergency Planning and Community Right-to Know Act. The Safety Department will also make this determination.

First Aid

If an employee has been splashed with chemicals on the skin, immediately follow these steps:

- Go to an emergency shower or sink.
- Remove contaminated clothing.
- Wash the area with water thoroughly for 15 minutes.
- Seek medical attention.

If an employee's eyes have been exposed to hazardous liquids, have the employee flush his or her eyes with water for at least 15 minutes. Use an eye wash station, sink, or water fountain. After the eyes have been rinsed, ask the employee to close both eyes. Cover the eyes with a clean cloth and seek medical assistance.

Chemical burns also require immediate attention. For first and second degree burns:

- Immerse the burned area in cold water or apply ice packs to the affected area.
- Cover the burned area with a clean cloth.
- Treat the employee for shock, if necessary.
- Don't apply butter, oil, or cream to a burn.

For serious burns, including large area burns and charred skin:

- Remove clothing from the injured area. Cut around, but do not remove, clothing that sticks to the skin.
- Place an approved burn blanket or the cleanest available cloth over the entire burn area.
- Treat the employee for shock
- If the employee is conscious, provide nonalcoholic fluids.
- Call emergency personnel as soon as possible.

If an employee has been overcome from inhaling fumes from a hazardous chemical, move the employee to fresh air. If necessary, a trained employee should administer CPR.

Note: There may be different first aid procedures depending on the particular chemical release. Read the label and the MSDS for specific instructions.

Workplace Hazards

Ergonomics Program

Millwright Sites LLC is committed to eliminating ergonomic hazards from the workplace. To accomplish this goal, Millwright Sites LLC has adopted an ergonomics program consisting of the following elements:

- **Worksite analysis.** Millwright Sites LLC conducts regular worksite analyses to identify workstations, equipment, processes, and tasks that present ergonomic hazards.
- **Hazard prevention and control.** Once ergonomic hazards have been identified, Millwright Sites LLC will promptly take steps to eliminate or mitigate the hazards. Whenever possible, Millwright Sites LLC will use engineering controls to eliminate the hazard's root cause. When a hazard cannot be eliminated, employer will adopt work practice controls and/or introduce the use of personal protective equipment as a way to minimize hazards.
- **Medical management.** Millwright Sites LLC will encourage employees with ergonomic-related injuries to seek help from qualified medical professionals. As necessary, Millwright Sites LLC will consult with ergonomists and/or qualified medical professionals to eliminate or mitigate risk factors that may have caused employee's medical conditions.
- **Training and education.** Millwright Sites LLC will train employees to recognize ergonomic hazards and to protect themselves from ergonomic-related injuries. New employees will receive ergonomics training as part of their safety orientation. Supervisors, in consultation with Millwright Sites LLC Ergonomics Team (see below); will provide employees with task-specific ergonomics training.

Definitions

Ergonomics. Ergonomics is the scientific study of human work. Ergonomics considers the physical and mental capabilities and limits of the worker as he or she interacts with tools, equipment, work methods, tasks, and the work environment. A goal of ergonomics is to reduce work-related musculoskeletal disorders by adapting the job to fit the person, instead of forcing the person to adapt to the job.

Ergonomics program. An ergonomics program is a systematic method of preventing, evaluating, and managing work-related musculoskeletal disorders.

The musculoskeletal system. The musculoskeletal system is made up of the soft tissue and bones of the body. The components of the musculoskeletal system are:

- Bones- the load bearing structure of the body.
- Muscles- tissues that contract to create movement.
- Tendons- tissue that connects muscles to bones.
- Ligaments- tissue that connects bones to bones.
- Cartilage- tissue that provides cushioning and reduces friction between bones.

- Nerves- the communication system that links muscles, tendons, and other tissues with the brain.
- Blood vessels- tubes that circulate nutrients throughout the body.

Musculoskeletal disorders. Musculoskeletal disorders are illnesses and injuries that affect one or more parts of the musculoskeletal system (see above). Musculoskeletal disorders include sprains, strains, inflammation, degeneration, pinched nerves or blood vessels, bone splintering, and stress fractures. Symptoms are discomfort, pain, fatigue, swelling, stiffness, or numbness and tingling.

Other terms for musculoskeletal disorders include:

- Cumulative trauma disorders (CTDs),
- Musculoskeletal disorder (MSDs),
- Repetitive stress injury (RSIs),
- Repetitive motion injury (RMIs), and
- Overuse injuries.

Risk factors. Risk factors are job elements that increase the chance of work-related musculoskeletal disorders. The potential of a risk factor to cause injury is affected by the duration of the worker's exposure to it.

Responsibilities

Working safely and using proper ergonomic work practices is everybody's responsibility. Specific responsibilities for implementing Millwright Sites LLC's ergonomics program are described below.

Safety manager. Millwright Sites LLC's Safety Manager is responsible for coordinating the ergonomics program. The Safety Manager will appoint an Ergonomics Team consisting of safety and health personnel, management representatives, employee representatives, as well as Purchasing Department representatives.

The Safety Manager is responsible for working with supervisors of any areas in which ergonomic problems are identified. The Safety Manager and the supervisor, in consultation with the Ergonomics Team, will establish a corrective action plan and a timetable for its implementation.

Ergonomics team. The Ergonomics Team is responsible for:

- Performing a baseline worksite analysis to identify ergonomic hazards as well as an annual review of Millwright Sites LLC's ergonomic program;
- Investigating ergonomic-related injuries and complaints;
- Reviewing major purchases of tools, workstations, and equipment to ensure that the items purchased are ergonomically appropriate; and
- Formulating recommendations to eliminate ergonomic hazards.

Supervisors. All supervisors will receive training in basic ergonomic concepts and in preventing common types of ergonomic injuries. Supervisors, in consultation with Millwright Sites LLC's Ergonomics Team, will provide employees with task-specific ergonomics training. All supervisors are responsible for promoting ergonomics awareness within their departments and for coaching and correcting employees who fail to conform with the guidelines contained in this policy.

As necessary, supervisors with purchasing authority will consult with the Purchase Manager and/or Ergonomics Team to ensure that only ergonomically suitable tools, equipment, and office furniture are purchased.

Employees. All employees must use safe work practices. Employees are responsible for learning and applying the safe work practices they are taught during their general safety orientation and their task-specific training. Employees who refuse to comply with ergonomic guidelines or who recklessly disregard the guidelines can be subject to discipline.

Worksite Analysis

Worksite analysis is a structured process for identifying jobs and workstations that may present musculoskeletal hazards. Worksite analysis involves:

- Reviewing accident and injury records;
- Recognizing injury patterns that suggest underlying ergonomic problems;
- Following up on employee complaints or ergonomic problems;
- Prioritizing problem areas;
- Identifying the risk factors that may be causing the injuries; and
- Developing corrective action plans.

Selecting Projects

A worksite analysis begins with a review of injury records (OSHA injury logs, worker's compensation first notice of injury reports, and accident and near-miss reports). After the Ergonomics Team has conducted an initial records review, it will rank departments, job classifications, and job activities in descending order according to the need for intervention. This need will be determined based on the injury incidence rate (the number of injuries in the past year weighted by the number of employees in the department, classification, or activity) and by the severity of the particular injuries.

Identifying Risk Factors

After priorities have been set, the Team will begin investigating top-priority departments and jobs. The first step is to study and identify the risk factors present. The following list of risk factors can serve as a general guide in this process:

- **Forcefulness.** This is the amount of physical effort required by the person to perform a task or maintain control of tools or equipment. The physical effort will

- depend on a range of factors, including the grip on tools and equipment, the weight of objects lifted or carried, object dimensions, body posture, the type of activity, the slipperiness of the object, temperature, vibration, the duration of the task, and the number of repetitions.
- **Awkward posture.** A posture is "awkward" if it deviates from an ideal neutral posture. Awkward postures include reaching behind, twisting, working overhead, kneeling, forward or backward bending, and squatting. Neutral postures subject employees to a minimum amount of stress. For many jobs, a neutral posture consists of:
    - The back, neck, and head in a natural, relaxed alignment;
    - Arms at the side of the torso;
    - Elbows bent; and
    - Wrists kept straight.

- **Repetitiveness.** A job that requires employees to perform the same motions repeatedly subjects employees to a risk of ergonomic injuries. The severity of risk depends on the frequency of repetition, speed of the movement or action, the number of muscle groups involved, and the force required.

- **Static loading.** Static loading refers to physical effort or body postures that must be sustained for an extended period of time. As muscles remain contracted, the blood flow to the muscles is reduced.
- **Mechanical contact stress.** Mechanical contact stress refers to injuries that result from a workers' direct contact with equipment or tools. These injuries include bruising, chafing, pinching, or crushing injuries.
- **Extreme temperatures.** Low temperatures reduce sensory feedback, dexterity, blood flow, muscle strength, and balance. High temperatures increase fatigue and reduce muscular capacity.
- **Hand-arm vibration.** Equipment or hand tool vibration can go through the hand and arm, and then travel through the rest of the body. Vibration can affect the lower back, especially when driving a vehicle. Vibration reduces blood flow and sensory response.

For each risk factor, the duration of worker exposure affects the potential for it to cause injury. Any combination of the risk factors may further increase the likelihood of a work-related musculoskeletal disorder.

Analyzing Risk Factors

Determining why risk factors exist is a primary goal of Millwright Sites LLC's ergonomics program. If the causes are not determined, then solutions to the problem cannot be developed effectively. The Ergonomics Team needs to determine whether a risk factor is caused by:

- The method used or required to do the task;
- The effort or strength required to do the task;
- The location or position of parts, equipment, or tools required to do the task;

- The speed or frequency of the work;
- The duration or repetition of the tasks;
- The design of the parts, equipment, or tools; or
- Environmental factors, such as light, noise, temperature, and air quality.

Hazard Prevention and Control

Hazard prevention and control involves making changes to jobs, workstations, tools, and the work environment to better accommodate worker's physical capacities. As appropriate, Millwright Sites LLC will use engineering and work practice controls and personal protective equipment to protect employees from ergonomic hazards. Engineering controls are the preferred means to protect employees from ergonomic hazards because they involve permanent changes intended to eliminate the hazard's root cause.

Engineering Controls

Engineering controls effectively eliminate a hazard by making the job processes and/or equipment. Engineering controls can involve changes to:

- Workstation design,
- Workspace layout;
- Work surfaces;
- Walking and standing surfaces;
- Seating;
- Materials handling procedures;
- Work environment--- e.g., changes to ventilation and climate control;
- Work methods;
- Worker posture;
- Tool and equipment; or
- Equipment controls and displays.

A description of each type of change is given below:

Workstation design. Work stations should be designed to minimize the need for awkward bending, stretching, or twisting. Keyboards or work surfaces should be adjustable in height so that employees can keep their wrist straight and their elbow bent at 90 degrees while typing or working with their hands.

Workstation design often can be improved and hazards eliminated by making changes to:

- The height and position of work surfaces and shelves;
- Standing and walking surfaces;
- Workstation seating; and
- The means for materials handling, storage, and movement.

Computer workstations have special considerations. The following factors should be taken into account to prevent discomfort and/or injury.

- The height and position of an employee's chair should allow the employee to maintain a neutral, balanced posture while at the keyboard. While using a keyboard, employees should keep their: arms comfortably at their sides; elbows bent approximately 90 degrees, forearms parallel to the floor, and wrists straight.
- Chairs should meet the guidelines set out under "Seating" below.
- Work surfaces should be large enough to accommodate the keyboard, monitor, and documents.
- The top of the computer monitor screen should be slightly below eye level so the employee does not have to slouch or keep his or her neck bent to read the screen. If necessary, a pedestal or adjustable arm should be used to bring the screen to the proper height. Screens that tilt vertically also can help the worker obtain the best viewing angle.
- Monitors should be placed slightly less than an arm's length away (18-30 inches) from the worker.
- Keyboard and work-surface edges should be rounded.
- A printed document that a worker is reading while typing should be at the same distance from the worker as the computer monitor. A variety of document holders and clip devices are available so that workers can view documents directly beside their computer monitor. Workers should be able to view the monitor and the document without having to turn their heads back and forth.
- To prevent glare, computer monitors should face away from windows. Monitors should never be directly under overhead lights. Screen contrast and brightness should be easily adjustable. A computer monitor should provide a clear display of characters and images. A wavy or flickering display is unacceptable.
- Wrist or palm rests may be used to protect wrists and palms from hard or sharp edges and to help keep wrists in a neutral position. However, workers should not keep their wrists on a wrist or palm rest while they type. Doing so can put pressure on nerves. Wrist/palm rests should be made of soft but supporting material and should be the same height as the front edge of the keyboard.

Workspace layout. Workspaces should be designed to give workers:

- Access to all necessary materials and equipment without having to stretch or reach;
- A variety of working positions to avoid static postures;
- Adequate leg room; and
- Adequate room to store and to use tools and equipment.

Work surfaces. Work surfaces should be adjustable, especially where different tasks are performed at the same workstation or the workstation is shared by different employees. Work surfaces should be at the proper height and angle for each worker's height and reach.

Walking and standing surfaces. Surfaces on which workers stand or walk for long periods should be designed to prevent slipping and to provide employees adequate traction and comfort. Anti-fatigue floor mats, sit-stand stools, and foot rests can help employees work more comfortably. For example, rather than having employees stand or walk on a concrete

floor throughout the workday, an employer can put rubber anti-fatigue mats in standing and walking areas to give employees greater comfort and better traction.

Seating. All chairs or seating provided to employees should:

- Provide seat-height adjustability and lower back support;
- Have padded seats;
- Be easily adjustable while seated;
- Isolate workers from vibration; and
- Have adjustable arm support.

Materials handling/movement. Lifting tasks are one of the main contributors to work-related musculoskeletal disorders. Some of the many potential risk factors associated with lifts include excessive force, awkward postures, repetitiveness, and static loading. Millwright Sites LLC's Ergonomic Team will use the National Institute of Occupational Safety and Health's (NIOSH's) Work Practices Guide for Manuel Lifting to help identify and mitigate risk factors associated with Millwright Sites LLC's lifting operations.

Lifting, carrying, pushing, or pulling objects can strain the back, arms, and shoulders. Employees should use their common sense and knowledge of their own lifting capabilities as their guide in deciding whether to attempt an unassisted lift. However, as a rule of thumb, an employee should never attempt an unassisted lift of an object that exceeds 50 pounds or one-third of the employee's body weight, whichever is less.

Work environment. Excessive noise, poor climate control, and inadequate lighting are examples of work-environment risk factors. Millwright Sites LLC will attempt to minimize work-environment risk factors by:

- Isolating equipment or operations that produce loud or distracting noise;
- Providing sufficient lighting without causing glare;
- Ensuring that workers in cold environments have clothing to protect their hands and feet from cold;
- Reducing whole-body vibration while standing near or using vibrating equipment; and
- Providing adequate cooling and ventilation to protect workers from excessive heat.

Work methods design. Work methods should be designed so work can be completed safely and comfortably. Work methods should allow employees to maintain neutral postures, avoid stooping and reaching, and minimize time spent with arms overhead.

Nerves, tendons, and blood vessels can be damaged by exposure to hard or sharp edges, such as a table edge. Equipment should be positioned so a worked doesn't touch the edges. Alternatively, the edges should be padded to minimize contact with the worker.

Tasks involving repetitive motion- e.g., stapling, sorting, labeling, or filing operations—are major contributors to cumulative-trauma disorders. Millwright Sites LLC will seek to minimize repetitive motion injuries by:

- Automating tasks;

- Redesigning the job so repetitive actions are properly paced and are conducted with a minimal amount of stress to the worker; and
- Changing the job to include tasks that don't use the same muscle groups.

Tool and equipment design. Tools and equipment should fit the individual user and the demands of the particular task at hand. Tools should be selected that minimize stress on tissues and joints from vibration and static muscle loading. Tools also should allow employees to maintain neutral body positions while working.

The size and shape of a tool handle influences the amount of force that can be exerted without straining the muscles and tendons. A handle that is too large or too small requires more force to accomplish the same amount of work as a tool with a correctly-sized handle. Tool handles should:

- Fit the individual user's hand and be long enough so they don't press into the palm or wrist;
- Have rounded (not sharp) edges, a positive stop or flanged end, and no fluting;
- Have a textured, nonslippery surface;
- Be made of material that is nonconductive; and
- Minimize vibration transferred to the hand.

Controls and displays. Controls and displays need to be visible, accessible, and easy to operate. The location of equipment controls and indicators should allow employees to view or use them while maintaining neutral body postures. The placement of controls and indicators also should reflect the frequency and sequence of their use.

Work Practice Controls

If hazards cannot be eliminated through the use of engineering controls, Millwright Sites LLC will adopt work practice controls necessary for employees to work safely around the hazards. Work practice controls include safety rules, procedures, and training intended to protect employees from hazards. Examples of work practice controls targeting ergonomic hazards include:

- **Work methods training.** Employees will be taught how to perform their jobs with the least physical stress and the best posture. Employees also will be taught how to handle materials, tools, and equipment safely.
- **Gradual introduction to work.** New and returning employees in jobs involving risks, such as prolonged repetitive motion, must be introduced gradually to a full workload to improve work capacity and prevent injury.
- **Recovery pauses.** Regular breaks and appropriately paced work allow employees' muscles to recover between exertions. Employees will be encouraged to take short, but frequent work breaks when involved in tasks requiring repetitive motions.
- **Job rotation.** If possible, employees whose work involves repetitive motions should be rotated through job assignments. Rotating workers into jobs requiring the use of different muscle groups can help employees' muscles recover from stress caused by repetitive motion.

Personal Protective Equipment

Personal protective equipment helps isolate employees from workplace hazards. Gloves, footwear, and knee pads are among the types of personal protective equipment that can be helpful in isolating employees from ergonomic hazards. Millwright Sites LLC will provide personal protective equipment that:

- Fits individual workers;
- Is appropriate for the task being performed; and
- Does not contribute to extreme postures or excessive force.

Gloves. Gloves can protect workers' hands from injury or from cold. However, gloves also can reduce a worker's dexterity and require workers to increase the force of their grip. When choosing gloves, supervisors and employees should follow these guidelines:

- Gloves should be small enough to minimize wrinkling or slipping but large enough so they don's impede circulation.
- Gloves should provide sufficient padding or insulation as may be required by the job.
- Gloves with a textural surface can improve an employee's grip.
- If chemical resistance is not a concern, material should be breathable so perspiration is not trapped.

Footwear/anti-fatigue insoles. Anti-fatigue insoles can provide employees relief from musculoskeletal fatigue that develops after prolonged standing and walking on hard floor surfaces. Insoles should be used when anti-fatigue floor mats cannot be used because of housekeeping needs, the size of the area to be covered, or tripping hazards.

Knee pads. Knee pads should be used to avoid prolonged contact with hard or sharp surfaces. They should be comfortable, large enough to cover the entire knee, padded, and snug enough to fit well but not so tight that they impede circulation.

NOTE: Devices such as wrist splints and back belts are not considered PPE and should only be used if prescribed by a qualified health-care practitioner.

Medical Management

Medical management involves making the best use of available healthcare resources to prevent and control work-related musculoskeletal disorders. It does not require limiting health care to specific treatments or providers as long as an injured worker makes timely progress toward recovery goals.

The goals of Millwright Sites LLC's medical management program are to:

- Promote the prevention of ergonomic injuries;
- Identify signs and symptoms as soon as they occur;
- Ensure proper evaluation and treatment of injured workers;
- Ensure the safe and timely return to work for injured workers;

- Reduce the direct costs of injury and illness by decreasing time-loss and disability payments; and
- Reduce the indirect costs of injury and illness by retaining workers and maintaining productivity.

Employees and managers will be trained to recognize the signs and symptoms of musculoskeletal disorders and what to do if disorders are discovered. Supervisors should encourage employees to report injuries or symptoms as soon as they are discovered and to seek prompt treatment.

Millwright Sites LLC will encourage injured workers to be active participants in their recovery and to follow through on treatments recommended by their physicians. Millwright Sites LLC will coordinate with its workers' compensation insurer, the insured workers' attending physician, and other medical or rehabilitative specialists to ensure return-to-work plans are appropriate.

Training and Education

Training and educating employees on work-related musculoskeletal disorders is critical to the success of Millwright Sites LLC.'s ergonomics program. New employees will receive ergonomics training as part of their safety orientation training. Supervisors, in consultation with Millwright Sites LLC's Ergonomics Team, will provide employees with task-specific ergonomics training. As necessary, employees will receive training when:

- New processes, equipment, or procedures are introduced into the workplace;
- An employee had been off work for more than 30 days; and
- Accident rates go up, injuries become more severe, or performance drops.

Training and education will focus on giving both supervisors and employees an understanding of ergonomic injuries, their causes, symptoms, prevention, and treatment.

Contents of Training

Ergonomics training included in employee's general safety orientation will cover:

- Types of musculoskeletal disorders often associated with the job;
- Risk factors that may contribute to or cause musculoskeletal disorders;
- Recognizing and reporting symptoms of ergonomic injuries.

Job-specific training will include:

- Hands-on training before beginning regular duty;
- Care and proper use of all tools and equipment;
- Proper lifting techniques and devices;
- The correct way to stand, sit, bend, turn, reach, grasp, push/pull, and climb;
- Identifying hazards in work areas, such as slippery surfaces, sharp edges, and vibrating equipment; and
- Using proper personnel protective equipment, if any.

Training for engineers and maintenance personnel will cover how to correct musculoskeletal hazards through workstation design and maintenance. These personnel should be able to

recognize hazards and modify workstations to eliminate or reduce hazards. Purchasing personnel should be trained to understand basic ergonomic concepts of tool, equipment, and furniture design so they can make informed purchasing decisions.

Worksite Analysis Sample Checklists

Following are sample checklists Millwright Sites LLC's ergonomics team will use to guide their analyses of work-place ergonomic hazards. The five checklists cover:

- Workstations;
- Task analysis;
- Hand tools;
- Materials handling; and
- Computer workstations.

The checklists are written so that "no" responses indicate potential problem areas that need further investigation.

WorkStation Checklist

□ Yes □ No Does the working space allow for a full range of movement?

□ Yes □ No Are mechanical aides and equipment available?

□ Yes □ No Is the height of the work surface adjustable?

□ Yes □ No Is the workstation designed to reduce or eliminate bending or twisting at the waist?

□ Yes □ No Is the workstation designed to reduce or eliminate reaching above the shoulder?

□ Yes □ No Is the workstation designed to reduce or eliminate static muscle loading?

□ Yes □ No Is the workstation designed to deduce of eliminate extending the arms?

□ Yes □ No Is the workstation designed to reduce or eliminate bending or twisting at the wrists?

□ Yes □ No Is the workstation designed to reduce or eliminate raised elbows?

□ Yes □ No Is the employee able to vary posture?

□ Yes □ No Are hands and arms free from pressure from sharp edges on work surfaces?

□ Yes □ No Is an armrest provided where needed?

□ Yes □ No Is a footrest provided where needed?

□ Yes □ No Is the floor surface flat?

Yes □ No Are cushioned floor mats provided for employees who are required to stand for long periods?

□ Yes □ No Is the chair or stool easily adjustable and suited to the task?

□ Yes □ No Are all task requirements visible from comfortable positions?

□ Yes □ No Is there a preventive maintenance program for mechanical aids, tools, and other equipment?

Task Analysis Checklist

□ Yes □ No Does the design of the task reduce or eliminate bending or twisting?

□ Yes □ No Does the design of the task reduce or eliminate crouching?

□ Yes □ No Does the design of the task reduce or eliminate bending or twisting the wrists?

□ Yes □ No Does the design of the task reduce or eliminate extending the arms?

□ Yes □ No Does the design of the task reduce or eliminate raising elbows?

□ Yes □ No Does the design of the task reduce or eliminate static muscle loading?

□ Yes □ No Does the design of the task reduce or eliminate clothes-wringing motions?

□ Yes □ No Does the design of the task reduce or eliminate finger pinch grip?

□ Yes □ No Are mechanical devices used when necessary?

□ Yes □ No Can the task be done with either hand?

□ Yes □ No Can the task be done with two hands?

□ Yes □ No Are pushing and pulling forces reduced or eliminated?

□ Yes □ No Are the required forces acceptable?

□ Yes □ No Are the materials able to be held without slipping?

□ Yes □ No Are materials easy to grasp?

□ Yes □ No Are materials free from sharp edges or corners?

□ Yes □ No Do containers have good handholds?

□ Yes □ No Are jigs, fixtures, and vises used where needed?

□ Yes □ No If gloves are needed, do they fit properly, and are they made of the proper fabric?

□ Yes □ No Does the task avoid contact with sharp edges?

Yes □ No When needed, are push buttons designed properly?

□ Yes □ No Does personal protective equipment keep from getting in the way of the task?

□ Yes □ No Are high rates of repetitive motion avoided by job rotation?

□ Yes □ No Are high rates of repetitive motion avoided by self pacing?

□ Yes □ No Are high rates of repetitive motion avoided by sufficient rest pauses?

□ Yes □ No Are high rates of repetitive motion avoided by adjusting the job to the skill level of the worker?

□ Yes □ No Is the employee trained in proper work practices?

□ Yes □ No Is the employee trained in when and how to make adjustments?

□ Yes □ No Is the employee trained in signs and symptoms of potential physical problems?

Hand Tool Analysis Checklist

□ Yes □ No Are tools selected to avoid excessive vibration?

□ Yes □ No Are tools selected to avoid excessive force?

□ Yes □ No Are tools selected to avoid bending or twisting the wrist?

□ Yes □ No Are tools selected to avoid finger pinch grip?

 Yes □ No Are tools selected to avoid problems associated with trigger finger?

□ Yes □ No Are tools powered where necessary and feasible?

□ Yes □ No Are tools evenly balanced?

□ Yes □ No Are heavy tools counterbalanced?

□ Yes □ No Does the tool allow adequate visibility of the work?

□ Yes □ No Does the tool grip/ handle prevent slipping during use?

 Yes □ No Are tools equipped with handles of proper diameter?

□ Yes □ No Are tools equipped with handles that do not end in the palm area?

□ Yes □ No Are tools equipped with handles of textured non-conductive material?

□ Yes □ No Are different handle sizes available to fit a wide range of hand sizes?

Yes □ No Is the tool handle designed to not dig into the palm of the hand?

□ Yes □ No Can the tool be used safely with gloves?

□ Yes □ No Can the tool be used by either hand?

□ Yes □ No Is there a preventive maintenance program to keep tools operating as designed?

□ Yes □ No Have employees been trained in the proper use of tools?

□ Yes □ No Have employees be trained when and how to report problems with tools?

□ Yes □ No Have employees been trained in proper tool maintenance?

Materials Handling Checklist

□ Yes □ No Has excessive weight lifting been reduced?

□ Yes □ No Are materials moved over minimum distances?

□ Yes □ No Is the distance between the object and the body minimized?

□ Yes □ No Are walking surfaces level?

□ Yes □ No Are walking surfaces wide enough?

□ Yes □ No Are walking surfaces clean and dry?

□ Yes □ No Are walking surfaces well lit?

□ Yes □ No Are objects easy to grip?

□ Yes □ No Are objects stable?

□ Yes □ No Are objects able to be held without slipping?

□ Yes □ No Are there handholds on these objects?

□ Yes □ No When required, do gloves fit properly?

□ Yes □ No Is the proper footwear worn?

□ Yes □ No Is there enough room to maneuver?

□ Yes □ No Are mechanical aids easily available and used whenever possible?

□ Yes □ No Are working surfaces adjustable to the best handling heights?

□ Yes □ No Does material handling avoid movements below knuckle height and above shoulder height?

Yes □ No Does material handling avoid static muscle loading?

□ Yes □ No Does material handling avoid sudden movements during handling?

□ Yes □ No Does material handling avoid twisting at the waist?

□ Yes □ No Does material handling avoid excessive reaching?

□ Yes □ No Is help available for heavy or awkward lifts?

□ Yes □ No Are high rates of repetition avoided by job rotation?

□ Yes □ No Are high rates of repetition avoided by self pacing?

□ Yes □ No Are rates of repetition avoided by sufficient rest pauses?

□ Yes □ No Are pushing and pulling forces reduced or eliminated?

□ Yes □ No Does the employee have an unobstructed view of the handling task?

□ Yes □ No Is there a preventive maintenance program for equipment?

□ Yes □ No Are workers trained in correct handling and lifting procedures?

Computer Workstation Checklist

□ Yes □ No Is the chair adjusted to ensure proper posture, such as knees and hips bent at approximately 90°?

□ Yes □ No Is the chair adjusted to ensure proper posture, such as feet flat on floor or footrest?

□ Yes □ No Is the chair adjusted to ensure proper posture, such as arms comfortably at sides with elbows at 90° angle

□ Yes □ No Is the chair adjusted to ensure proper posture, such as straight wrists at keyboard?

□ Yes □ No Does the chair adjust easily from the seated position?

□ Yes □ No Does the chair have a padded seat that is adjustable for height and angle?

□ Yes □ No Does the chair have an adjustable backrest?

□ Yes □ No Does the chair provide lumbar support?

□ Yes □ No Does the chair have a stable caster base?

□ Yes □ No Is there sufficient space for knees and feet?

□ Yes □ No Are the height and tilt of the keyboard work surface adjustable?

□ Yes □ No Is the keyboard prevented from slipping when in use?

Yes □ No Is the mouse and pointing device at the same level as the keyboard?

□ Yes □ No Does keying require minimal force?

□ Yes □ No Is there an adjustable document holder?

□ Yes □ No Are arm rests provided where needed?

□ Yes □ No Is the screen clean and free of flickering?

□ Yes □ No Is the top line of the screen slightly below eye level?

□ Yes □ No Does the monitor have brightness and contrast controls?

□ Yes □ No Is the monitor 18-30 inches from the worker for viewing?

□ Yes □ No Is there sufficient lighting without causing glare?

□ Yes □ No Is an anti-glare screen used if necessary?

□ Yes □ No Are adequate rest breaks provided for task demands?

□ Yes □ No Are high stroke rates avoided by job rotation?

□ Yes □ No Are high stroke rates avoided by self pacing?

□ Yes □ No Are high stroke rates avoided by adjusting the job to the skill of the worker?

□ Yes □ No Are high stroke rates avoided by adequate rest pauses?

□ Yes □ No Are employees trained in proper postures?

□ Yes □ No Are employees trained in proper work methods?

□ Yes □ No Are employees trained in when and how to adjust their work stations?

□ Yes □ No Are employees trained in how to seek assistance with concerns?

Avoiding Low Back Injuries

Low back injuries are the single most frequent type of injury requiring days off from work. According to the Bureau of Labor Statistics, almost half a million incidents of back injuries resulted in time away from work in 1996. About half of working-age adults have low back symptoms annually, and up to 90 percent of adults experience an acute episode of low back pain at least once in their lifetimes. Many back injuries are preventable if employees and employers follow simple and inexpensive measures.

The American College of Occupational and Environmental Medicine provides steps that employers and employees can take to avoid low back injuries. This checklist can be viewed at www.acoem.org/LaborDayChecklist.aspx.

Indoor Air Quality

Identifying the sources of indoor air pollution is a key step in an effective indoor quality program. Millwright Sites LLC and its building managers can identify potential problems by reviewing existing records, conducting a walkthrough of the facility, and performing tests. Millwright Sites LLC encourages its employees to report indoor air problems.

The form for filing a complaint can be found at: EPA/NIOSH publication *Building Air Quality: A Guide for Building Owners and Facility Managers.* Millwright Sites LLC encourages its employees to use this form to describe their complaints about indoor air quality. Knowing what is bothering its employees, Millwright Sites LLC can help its employees discover problem areas and take any necessary corrective action.

NIOSH and EPA have developed an eight-step Building Air Quality Action Plan. This plan is designed to help Millwright Sites LLC implement good air quality management practices. This plan can be downloaded from www.cdc.gov/niosh/98-123a.html.

Common indoor air contamination include:

- Tobacco smoke;
- Combustion products, such as smoke;
- Outdoor contaminants that come inside, such as pollen, industrial pollutants, vehicle exhaust, and garbage odors and fumes;
- Volatile organic compounds, such as solvents and cleaning agents,
- Respiratory particles, such as dust, pollen, and asbestos;
- Respiratory by-products, such as carbon monoxide;
- Microbial organisms, such as mold, mildew, fungi, and bacteria;
- Radon;
- Ozone; and
- Emissions from office equipment.

Video Display Terminals: Employee Guidelines

Introduction

Employees who use computers can sometimes experience musculoskeletal problems. Musculoskeletal problems are injuries to the muscles, joints, tendons, or nerves. Symptoms can include pain and swelling, soreness in the neck, shoulders, and back. Some employees may experience problems with their arms, wrists, and hands. Eye strain is another potential problem for computer users. Employees who experience these problems should report them to their supervisors.

To minimize these problems, employees who work at computer workstations should use the following guidelines.

Posture

The key to comfort is maintaining your body in a relaxed, natural position. The ideal work position is to have your arms hanging relaxed from your shoulders. When using a keyboard, arms should be bent at right angles at the elbow, with hands held in a straight line with forearms and elbows close to the body. Try to keep your head in line with your body and slightly forward.

Use a relaxed, upright working posture. Don't slouch forward or lean far backwards. Place frequently used work materials within easy reach.

Display Screen

The top of the display screen should be at, or just slightly below, eye level. This allows your eyes to view the screen at a comfortable level, without having to tilt your head or move your back muscles. The monitor should be 18 to 24 inches from the operator.

Control glare at the source whenever possible. Place VDTs so that they are parallel to direct sources of light such as windows and overhead lights. Adjust blinds, shades, or drapes to control the glare. When glare sources cannot be removed, request screen treatments such as glare filters. Keep the screen clean.

Chair

The chair can be the most important piece of equipment for office workers. You should make sure that the chair is properly adjusted. Making sure your back is supported and that the seat pan is at a height so that you thighs are horizontal and your feet are flat on the floor.

You may wish to vary the chair adjustments depending on the task. Use armrests, except when they interfere with the task. Resting the arms on armrests is a very effective way to reduce arm discomforts.

Keyboard and Mouse

Position the keyboard and mouse so your arms and hands are in a relaxed, comfortable position. Put the keyboard directly in front of you. This lets your type with your shoulders relaxed and your upper arms hanging freely at your sides.

Position the mouse at the same level as the keyboard. The mouse should be at your side, with your arms close to your body for support. Keep a straight line between your hand and forearm. Your upper

arm should not be elevated or extended. Your wrist should be flat, not angled. Use a mouse pad to help maintain straight lines.

Work/Rest Schedules

One solution for stress and fatigue is to alternate your work so that tasks requiring concentrated work at the terminal are alternated with non-computer based tasks throughout the workday. Also, take a short break (5-10 minutes) at least once each hour when involving in continuous work at the computer.

Other Tips

Additional measures that will help reduce discomfort while working with VDTs include:

- Change position, stand up, or stretch whenever you start to feel tired.
- Use a soft touch on the keyboard and keep your shoulders, hands, and fingers relaxed.
- Use a document holder, positioned at about the same plane and distance as the display screen.
- Rest your eyes by occasionally looking off into the distance.

Exercises

The following exercises will help you relieve VDT stress and strain. Give one or all of them a try if you find your mind or body fatiguing. Do not do these exercises if you feel any pain.

- **Deep breathing.** Breathe in slowly through your nose. Hold for two seconds, then exhale through your mouth. Repeat several times.
- **Head and neck relief.** Turn your head slowly from one side to the other, and look over each shoulder. Hold each turn for the count of three. Repeat five to ten times.
- **Shoulder roll.** Roll your shoulders forward five times using a wide circular motion. Then roll your back. Hold a few seconds. You should feel a nice stretch in your shoulder blades. Repeat five to ten times.
- **Upper back stretch.** Fold arms in front of you. Raise to shoulder height, then push your elbows straight back. Hold a few seconds. You should feel a nice stretch in your shoulder blades. Repeat five to ten times.
- **Lower back.** While sitting, slowly bend your upper body between your knees. Hold for a few seconds, then sit up and relax.
- **Wrist relief.** Hold your arms straight out in front of your body. Raise and lower your hands, bending at the wrist, to stretch the muscles in your forearm. Repeat several times.
- **Hand and fingers.** Make a tight fist with your hands. Hold for a second. Then spread your fingers as far apart as you can. Hold for five seconds. Repeat.
- **Leg lifts.** While sitting in a chair, grasp the shin of one leg and pull slowly toward your chest. Hold for five seconds. Then do the other leg. Repeat several times.

Workplace Violence Program

Policy Statement

July 31, 2007

Millwright Sites LLC is concerned and committed to our employees' safety and health. We refuse to tolerate violence in the workplace and will make every effort to prevent violent incidents from occurring by implementing a Workplace Violence Prevention Program (WPVP). We will provide adequate authority and budgetary resources to responsible parties so that our goals and responsibilities can be met.

Employees that engage in any violence in the workplace, or threaten violence in the workplace, will be terminated immediately for cause. Millwright Sites LLC will not tolerate joking about violence. " Violence" includes physically harming another, shoving, pushing, harassing, intimidating, coercing, brandishing weapons, and threatening or talking about engaging in those activities. Millwright Sites LLC specifically prohibits the possession of weapons by any employee while on company property.

All managers and supervisors are responsible for implementing and maintaining our WPVP program. We encourage employee participation in designing and implementing our program. We require prompt and accurate reporting of all violent incidents whether or not physical injury has occurred. We will not discriminate against victims of workplace violence.

Our program ensures that all employees, including supervisors and managers, follow work practices that are designed to make the workplace more secure, and do not engage in verbal threats or physical actions that create a security hazard for others in the workplace. All employees, including managers and supervisors, are responsible for using safe work practices, for following all directives, policies and procedures, and for assisting in maintaining a safe and secure work environment.

Employees should report any incidents of workplace violence. All reports will be investigated and kept confidential. Access to Millwright Sites LLC property is limited to those with a legitimate business interest. Employees that see suspicious individuals on the premises should call building security.

Our program will be reviewed and updated annually. A copy of this Policy Statement and our WPVP is readily available to all employees from each manager and supervisor.

Workplace Violence Prevention Program Threat Assessment Team

The Threat Assessment Team will consist of:

Floyd Hurst, Jr
President 210 669-6552

Susan Hurst
Manager/ Secy-Trea 830 560-2109

Elected employee/employees

This team will develop employee training programs in violence prevention and plan for responding to acts of violence. They will communicate this plan internally to all employees.

The Threat Assessment Team will review previous incidents of violence at our workplace. They will analyze and review existing records identifying patterns that may indicate causes and severity of assault incidents and identify changes necessary to correct these hazards. These records include, but are not limited to, OSHA 200 logs, past incident reports, medical records, insurance records, workers' compensation records, police reports, accident investigations, training records, grievances, and minutes of meetings. The team will communicate with similar local businesses and trade associates concerning their experiences with workplace violence.

Additionally, they will inspect the workplace and evaluate the work tasks of all employees to determine the presence of hazards, conditions, operations, and other situations that might place our workers at risk of occupational assault incidents. Employees will be surveyed to identify the potential for violent incidents and to identity or confirm the need for improved security measures. These surveys shall be reviewed, updated, and distributed as needed or at least once within a two-year period.

Periodic inspections to identify and evaluate workplace security hazards and threats of workplace violence will be performed by the following representatives of the Threat Assessment Team, in the following areas of our workplace:

Team leaders

Periodic inspections will be performed according to the following schedule: Monthly

Hazard Assessment

See www.osha.gov.workplace_violence/wrkplaceViolence.PartIII.html for Hazard Assessment guidelines.

Included in this site are forms for "Self Inspection Security Checklist" , "Incident Report Form", and Employee Security Survey."

The self inspection security checklist Millwright Sites LLC can use to assess security issues at its facilities. We use this form to verify that our workplace violence prevention program is adequate and up-to-date. Not all items in this checklist are appropriate to our business. Millwright Sites LLC will modify and expand this checklist to fit our own circumstances.

Millwright Sites LLC Incident Report Form

Victim's name: _____ Job title: _____

Victims address: _____

Home phone #: _____ Work phone #: _____

Victims Social Security Number : _____

Date of incident: _____

Time of incident: _____

Location of incident: _____

Work location: (if different) _____

Type of incident: (circle one): Assault, Robbery, Harassment, Disorderly conduct, Sex Offense, Other. (Please Specify) _____

Were you injured: (circle): Yes No

If yes, please specify your injuries and the location of any treatment:

Did Police respond to incident: (circle): Yes No

If yes, which Police department: _____

Was a police report filed: (circle): Yes No

Report Number: _____

Was your Superior Notified: (circle): Yes No Name of Supervisor: _____

Was any action taken by Millwright Sites LLC: Yes No

What action was taken: _____

Assailant/Perpetrator: (circle one): Intruder, Client, Visitor, Co-Worker, Employee, Supervisor, Family/Friend, Other, (Specify): _____

Assailant/Perpetrator- Name/Address/Age (if known):
_____

Please briefly describe the incident:

_____

_____

Incident Disposition: (circle all that apply): No action taken, Arrest, Warning, Suspension, Reprimand, Other:

_____

Did the incident involve a weapon: Yes No Specify: _____

Did you lose any work days: Yes No Specify: _____

Were you singled out or was the violence directed at more than one individual:

_____

Were you alone when the incident occurred: Yes No

Did you have any reason to believe that an incident might occur: Yes No
Why: _____

Has this type or similar incident(s) happened to you or your co-workers: Yes No
Specify: _____

Have you had any counseling or support since the incident: Yes No
Specify: _____

What do you feel can be done in the future to avoid such an incident:

_____

Was this assailant involved in previous incidents: Yes No

Are there any measures in place to prevent similar incidents: Yes No Specify: _____

Has corrective action been taken: Yes No Specify: _____

Comments:

Definition of Incidents

1. *Assault*: the intentional use of physical injury (impairment of physical condition or substantial pain) to another person, with or without a weapon or dangerous instrument.
2. *Criminal mischief*. Intentional or reckless damaging of the property of another person without permission.
3. *Disorderly conduct*: intentionally causing public inconvenience, annoyance or alarm or recklessly creating a risk thereof by fighting (without injury) or in violent numinous or threatening behavior or making unreasonable noise, shouting abuse, misbehaving, disturbing an assembly or meeting or persons, or creating hazardous conditions by an act which serves no legitimate purpose.
4. *Harassment*: intentionally striking, shoving, or kicking another or subjecting another person to physical contact, or threatening to do the same (without physical injury). Also, using abusive or obscene language or following a person in about a public place, engaging in a course of conduct which alarms or seriously annoys another person.
5. *Larceny*: wrongful taking, depriving or withholding property from another (no force involved). Victim may or may not be present.
6. *Menacing*: intentionally places or attempts to place another person in fear of imminent serious physical injury.
7. *Reckless endangerment*: subjecting individuals to danger by recklessly engaging in conduct which creates substantial risk of serious physical injury.
8. *Robbery*: forcible stealing of another's property by use of threat of immediate physical force. (Victim is present and aware of theft).
9. *Sex offenses*: Public Lewdness: exposure of sexual organs to other; Sexual abuse: subjecting another to sexual contact without consent; Sodomy: a deviant sexual act committed as in rape; Rape: sexual intercourse without consent.